



UNIVERSITY OF SASKATCHEWAN

College of Medicine

DEPARTMENT OF MEDICINE
MEDICINE.USASK.CA

DEPARTMENT OF MEDICINE ANNUAL REPORT



2018 - 2019

ABOUT THE DEPARTMENT OF MEDICINE

The Department of Medicine is an academic and clinical department within the College of Medicine at the University of Saskatchewan and the Saskatchewan Health Authority. Most of the 240 plus members of the department are found in Saskatoon or Regina, with additional members found in Prince Albert, Moose Jaw, North Battleford, Lloydminster, Swift Current and Yorkton.

VISION

Inspiring hope for Saskatchewan patients.

MISSION

Advancing patient care by providing innovative education, research and clinical services.

To our patients:

We offer the best possible medical care.

To our students and residents:

As role models for future clinicians and scientists, we offer quality programming and a supportive learning environment.

To our department members:

We support, develop and engage all members to foster a mutually beneficial relationship and a common sense of purpose.

To Saskatchewan:

We collaborate, engage and innovate to address medical needs.

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A MESSAGE FROM DR. HAISSAM HADDAD, PROVINCIAL HEAD, DEPARTMENT OF MEDICINE

Dear Colleagues and Friends:

It is my great pleasure to present to you the Department of Medicine at the University of Saskatchewan and Saskatchewan Health Authority 2018-2019 Annual Report.

In this report, we are proud to share with you some of our new programs and initiatives as well as local, national and international highlights and accomplishments achieved by our talented members.

During the 2018-19 year, the Department of Medicine has continued to focus on its vision and mission through recruitment, retention, and innovation in clinical care, teaching and research.

I would like to thank and congratulate all of you for an outstanding year!

I hope you enjoy reading this report.

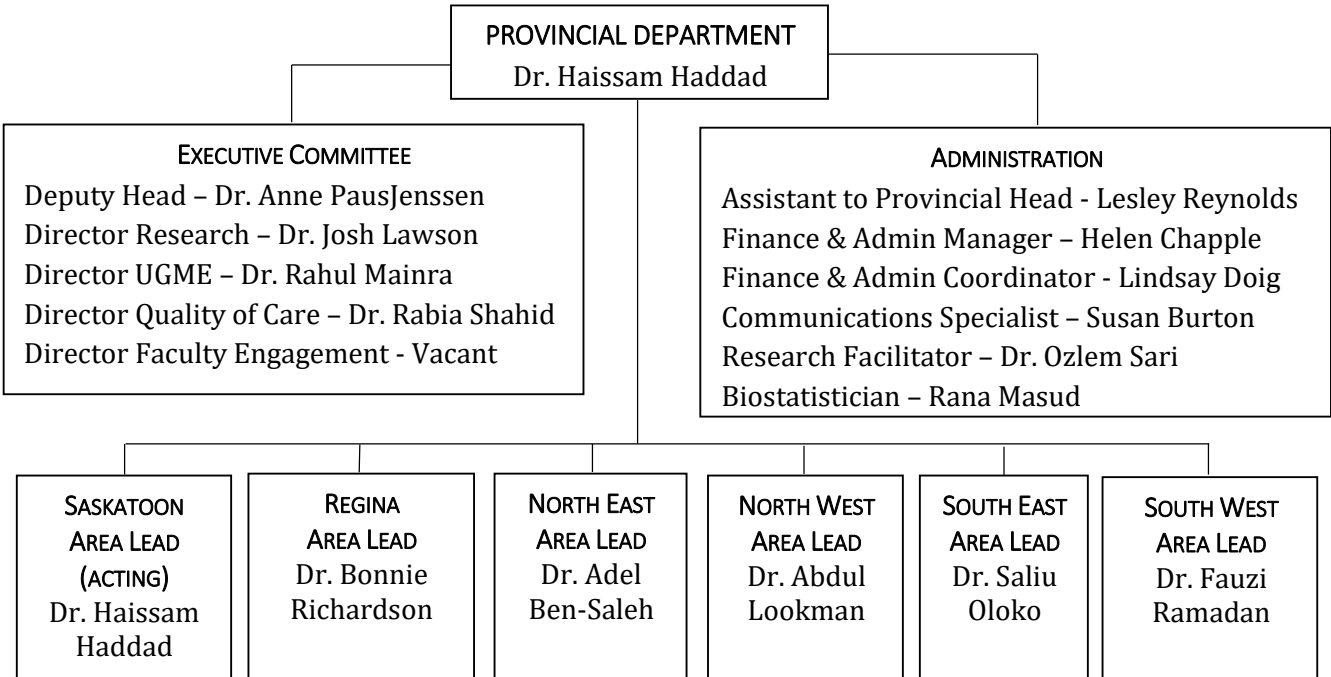
DR. HAISSAM HADDAD, MD, FRCPC
PROFESSOR AND HEAD, DEPARTMENT OF MEDICINE
UNIVERSITY OF SASKATCHEWAN
LOUIS HORLICK CHAIR IN MEDICINE
PROVINCIAL HEAD, MEDICINE



DR. HAISSAM HADDAD

DEPARTMENT OF MEDICINE STRUCTURE

(July 1, 2018 to June 30, 2019)



DEPARTMENT OF MEDICINE DIVISION HEADS

(July 1, 2018 to June 30, 2019)

SASKATOON

CCHSA	Dr. Niels Koehncke
Cardiology	Dr. Erik PausJenssen
Dermatology	Dr. Duane Lichtenwald
Endocrinology & Metabolism	Dr. Nassrein Hussein
Gastroenterology & Hepatology	Dr. Anil Bedi
Clinical Gerontology	Dr. Jenny Basran
Infectious Diseases	Dr. Stephen Sanche
General Internal Medicine	Dr. Kempe Gowda
Nephrology	Dr. Rod Stryker
Neurology	Dr. Alex Rajput
Respirology, Critical Care & Sleep Medicine	Dr. Robert Skomro
Rheumatology	Dr. Regina Taylor-Gjevre

REGINA

Area Department Lead	Dr. Bonnie Richardson
Cardiology	Dr. Rod Zimmerman
Dermatology	Dr. Karen Holfeld
Endocrinology	Dr. Jeremy FitzGerald
Gastroenterology	Dr. George Chami
Infectious Diseases	Vacant
General Internal Medicine	Dr. Jarol Boan
Nephrology	Dr. Siva Karunakaran
Neurology	Dr. Melad Shawush (Acting)
Respirology	Dr. Zenon Belak
Rheumatology	Dr. Ardyth Milne
Physical Medicine & Rehabilitation	Dr. Jacqueline Kraushaar
Critical Care Associates	Dr. Hendrick Van Der Merwe

WELCOME TO NEW FACULTY (July 1, 2018 to June 30, 2019)

Dr. Mariam Abbas	Dermatology Regina
Dr. Moyosore Abimboye	GIM/Geriatrics Regina
Dr. Alexandra Carter	Neurology Saskatoon
Dr. Chance Dumaine	Nephrology Saskatoon
Dr. Kerry Gardner	Dermatology Saskatoon
Dr. Irina Oroz	Dermatology Regina
Dr. Sarah Parent	Cardiology Saskatoon
Dr. Marc Reeson	GIM Regina
Dr. Christian Reuda-Clausen	Gastroenterology Regina
Dr. Jay Shavadia	Cardiology Saskatoon
Dr. Kelsey Tallon	Respirology Regina
Dr. Alia Teja	GIM Saskatoon
Dr. Dorothy Thomas	Nephrology Regina
Dr. Jeffery Wilkinson	Cardiology Moose Jaw

CONGRATULATIONS TO PROMOTED FACULTY

(July 1, 2018 to June 30, 2019)

Dr. Josh Lawson, CCHSA promoted to Full Professor

Dr. Bindu Nair, Rheumatology promoted to Full Professor

Dr. Payam Dehghani, Cardiology promoted to Associate Professor

Dr. Kerri Schellenberg, Neurology promoted to Associate Professor

QUALITY OF CARE

QUALITY IMPROVEMENT ROUNDS

We aim to enhance safety in the Department of Medicine and increase faculty and trainee engagement in quality improvement efforts. To fulfill this vision, Mortality and Morbidity Rounds were revised in 2018-19 to incorporate the concepts of system and cognitive thinking into a dynamic new process we call *Quality Improvement Rounds*. As a core element of these rounds, we are encouraging a concept of **just culture** where healthcare workers are supported when something goes wrong. Errors and threats to patient safety become opportunities to learn about weaknesses in the systems (rather than in individuals). These rounds are supervised and facilitated by the Department of Medicine Quality of Care Committee (QCC).



DR. RABIA SHAHID

DIRECTOR - QUALITY OF CARE

WORKING TOGETHER

During Quality Improvement Rounds, communication and handover of patients during a hospital to hospital transfer was identified as an area for improvement. There are many elements involved in the transfer of care of a patient from one facility to another and there is an excellent opportunity to improve the flow of information and the transition of care. This work started in 2019 with collaboration from the Saskatchewan Health Authority.

Many patients in hospitals have adverse events. Our goal is to develop a systemic and standardized process in the Department of Medicine by reviewing preventable adverse outcomes in patient care. This will help in understanding system-wide challenges in patient care, so the improvement efforts can be tailored in the right direction.

*"If you want to go quickly, go alone.
If you want to go far, go together."
~African proverb.*

RESEARCH

Over the past year few years, the Department of Medicine has been working hard to improve its involvement and productivity in research. We can see results of this focus already, as the College of Medicine's research productivity report (2014-2019) highlights **our department's improved research success** since 2014. Based on the College of Medicine's research productivity report, since 2014, our department has approximately doubled the number of research project awards and number of faculty with those awards as well as increased the number of citations and citations per faculty member. We have consistently ranked among the highest within the college in all of the metrics considered. Over the past year we have had a great deal of success to celebrate with a few of the highlights below.



DR. JOSH LAWSON
DIRECTOR - RESEARCH

FUNDING SUCCESS

From the CIHR competitions in fall 2018 through spring 2019, there were **five CIHR grants awarded** to faculty from the Department of Medicine. **Dr. Alexandra King and her team** were successful in four of these competitions with their research program looking at Indigenous wellness as well as setting up an Indigenous Centre on HIV/HCV/STBBI Inequities. **Dr. Terra Arnason and her team** were successful in their application to examine Functional Dissection of the Role of the Anaphase Promoting Complex in Cellular Longevity. Congratulations to Dr. King and Dr. Arnason and their research teams in these very competitive programs.

In addition to the CIHR grants, the Department of Medicine as a whole was successful in obtaining funding from other sources. Through collaboration between the **Royal University Hospital Foundation** (RUHF) and Dr. Haddad, we were very fortunate to be provided funding that will be specific to departmental activities focused on improving patient care. We are very grateful to the RUHF for their generous contributions.

We have also been successful in College of Medicine Research Awards (CoMRAD) competition. There were **11 successful applications** in the **CoMRAD competition in 2018**. Among these 11 applications, there were seven divisions represented and three of the successful applications were from Regina. This was a very positive research competition for our department and builds on our success from last year when four applications were successful.

SUPPORTING RESEARCH

In addition to success in grants, there have been several changes within the Department of Medicine to help foster successful research. **Dr. Ozlem Sari** is our new **Research Facilitator**. She has a history of working in research facilitation and is available to discuss how she might aid in the success of your research program. She will also be leading several research activities within the department. At the end of the year we hired **Rana Masud**, a **Biostatistician** who will consult about projects and conduct the data management and analysis for these projects. While not specific to research, the Department of Medicine has also hired **Susan Burton** as a **Communications Officer**. We will work with Susan to help facilitate communication about research within and beyond the department. We also have office space available now for research assistants working with departmental staff members. This space is located on the third floor near our main office.

While we have been successful over the past year and have made significant improvements to our research programming, we look forward to the next year to continue with these improvements and future success. Last fall, we conducted a survey of faculty about their research needs and wants. Based on some of the feedback, we have been working on upcoming activities. In addition to our **regular research rounds**, which are integrated into the departmental grand rounds, we will also be hosting **monthly lunch and learns**. These will revolve around practical information to engage and help inform researchers on various topics. As with last year our **departmental research day** this year will bring faculty presentations to the resident research days.

RESEARCH COMMITTEE

Going forward, we look to additional ways we can engage with faculty conducting or interested in conducting research. Our research committee now includes a member from each division allowing representation from all members who would like to voice ideas. Through this communication, we hope to improve our research programming to help our department. Also, we will be announcing the competition for the next round of internal medicine research awards this fall. We hope that through the use of this research funding, as well as that from CoMRAD, we will allow for future opportunities of research success. As always, we encourage you to contact the research committee and staff about your projects and ways in which we can assist you.

It was a very active year for research and we look forward to the upcoming year. We would like to congratulate you all for your successes. We also hope that by working together, we will be able to continue to build on our momentum in research.

2018-2019 PROVINCIAL HEAD AWARD WINNERS

Clinician of the Year:

DR. GUDRUN CASPAR-BELL

Despite a very heavy clinical and teaching load, Gudrun is able to maintain great clinical care for her patients. She goes above and beyond for her patients, often spending extra time educating them about their diseases.



DR. HEATHER WARD

Teacher of the Year

Heather is stepping down as Program Director of the GIM Residency Program at the end of June after 6.5 years. She consistently receives outstanding evaluations from residents.

Here are a few comments from residents:

- *“Excellent week with Dr. Ward. Very kind and knowledgeable. Allowed sufficient autonomy.”*
- *“Created a positive, practical learning environment centered around patient care.”*
- *“Great teacher, stimulated evidence-based discussion around cases.”*
- *“Dr. Ward is fantastic to work with. She is a great role model.”*
- *“Dr. Ward has a unique perspective that really pushes me to learn. She has a knack for taking a step back, looking at the big picture, and pulling out a learning point.”*

Researcher of the Year:

DR. CATHERINE TRASK

Catherine is an Associate Professor at the Canadian Centre for Health and Safety in Agriculture (CCHSA). She received a Tier II Canada Research Chair in 2012. This chair supports ongoing work in the CCHSA Ergonomics Lab focusing on work-related to musculoskeletal disorders in agriculture. She was recently awarded a renewal of this Chair until 2022. She has also been awarded CFI Infrastructure Operating Funds and a research contract with Merck Animal Health for this year. She has published in over 60 peer-reviewed publications.



DR. ROBERT SKOMRO

Administrator of the Year

Rob has been Division Head of Respiriology, Critical Care and Sleep Medicine since September 2015.

He is the leader of a very strong and comprehensive division with high performance in clinical care and significant contribution to the CTU/ACU, teaching and research.

FOCUS ON RESEARCH AND QUALITY OF CARE

Nearly one quarter (23%) of Saskatchewan residents have at least one of the five most common chronic conditions: diabetes, chronic obstructive pulmonary disease (COPD), asthma, ischemic heart disease and heart failure. The percentage increases dramatically in our elderly population.

Department of Medicine faculty are exploring ways to improve the quality of care provided to patients with chronic diseases as part of a new initiative at Royal University Hospital (RUH). Eight chronic disease projects have been made possible **thanks to a \$1.8 million commitment from the RUH Foundation.**

1) DIABETES FOR BROKEN HEARTS:

Drs. Rabia Shahid, Michael Prystajeky and Alex Zhai

The increased use of multi-disciplinary teams is expected to reduce communication gaps and improve diabetes care and outcomes for patients experiencing an acute coronary syndrome.

2) OPTIMIZING THE CARE OF PATIENTS WITH CORONARY ARTERY DISEASE

Drs. Haissam Haddad, Erik PausJensen and Jay Shavadia

A better understanding of the unique demographics and clinical characteristics of our cardiac patient population will enable us to identify potential gaps in patient care and help optimize the delivery of care.

3) IMPROVING ACCESS TO ADVANCED BRONCHOSCOPY PROCEDURES AT RUH

Dr. Chung-Chun (Anderson) Tyan

This study is expected to demonstrate that procedure time and procedure waiting time can be significantly reduced by having dedicated nurses with expertise in assisting with advanced bronchoscopic procedures.

4) SASKATOON STROKE PREVENTION CLINIC NURSE-LED, TELEPHONE-BASED SECONDARY PREVENTION FOLLOW-UP

Dr. Brett Graham and Brenda Kwiatkowski

The goal is to decrease the incidence of recurrence and progression of stroke symptoms by improving patient follow-up. The data collected may also be used to detect stroke risk factors and/or barriers to health that may be unique to a Saskatchewan population, allowing for future quality improvement projects and initiatives.

IMPROVING THE QUALITY OF CARE FOR CHRONIC DISEASES

More than 600 patients have already participated in the various studies which are being overseen by Unified Department Head, **Dr. Haissam Haddad**.

The second phase of the initiative includes targeting modifiable risk factors. The ultimate goal is to implement new processes and procedures throughout the province so as to improve the health and quality of life of Saskatchewan people living with chronic conditions.

5) IMPROVING INTERSTITIAL LUNG DISEASE CARE IN RUH

Dr. Veronica Marcoux

Creation of Saskatchewan's first Interstitial Lung Disease Clinic.

6) CULTURALLY SAFE APPROACHES TO CHRONIC DISEASE MANAGEMENT (CDM)

Drs. Donna Goodridge and Darcy Marciniuk

This initiative includes a review of existing practices, an evaluation of current conditions and the preparation of recommendations for enhancing the cultural safety of CDM programs.

7) SASKATOON ADULT CYSTIC FIBROSIS CLINIC

Dr. Julian Tam

The purchase of a portable spirometer is expected to assist with infection control, patient comfort and clinic flow. In the future, the portable unit could be used for satellite clinics in smaller communities throughout Saskatchewan.

8) THE VALIDATION OF A MOBILE-ELECTROENCEPHALOGRAM TECHNOLOGY FOR THE DIAGNOSIS OF EPILEPSY AT RUH

Dr. Jose Tellez-Zenteno

The goal is to become the first centre in Canada to develop a mobile EEG technology for patients with epilepsy.

FOCUS ON RESEARCH AND QUALITY OF CARE

Over 16% of Saskatchewan's population identify as Indigenous. Due to the ongoing impacts of colonialism and intergenerational trauma, Indigenous people in Saskatchewan have much poorer health outcomes than non-Indigenous people. HIV and Hepatitis C infection rates among Indigenous people in Saskatchewan are the highest in Canada. A First Nations person here is seven times more likely than others to contract Hepatitis C. Chronic diseases such as diabetes are also higher in Indigenous populations.

The Department of Medicine is committed to working with Indigenous communities who are determining their own health and wellness goals. Several of our members are bringing healthcare to the people, particularly in rural and remote communities.

Department of Medicine faculty are partnering with these communities to provide clinical care, education, and research. The successful partnerships are making a difference.

Dr. Rachel Asiniwasis is a recognized leader in working with First Nations communities within the Truth and Reconciliation principals. A Regina-based dermatologist, Dr. Asiniwasis recently expanded her practice to include remote First Nations communities in both northern and southern Saskatchewan including Stony Rapids and area, Île-à-la-Crosse, Buffalo Narrows, La Loche, Pelican Narrows, Touchwood Agency Tribal Council (Wellness Wheel communities), and Fort Qu'appelle.

Dr. Asiniwasis holds a combination of in-person (fly or drive in) clinics in each community, and is making use of teledermatology clinics mostly in the form of InTouch robot technology being piloted by the University of Saskatchewan, allowing for follow-up based in Regina between visits.

She has seen hundreds of patients in these communities and has often noted severe, poorly documented, complex and co-morbid skin conditions, which are frequently chronic, involve infants and children, and are far worse than what is seen in the general Canadian population.

Her patient numbers are expected to increase as there is growing demand from the communities for skin clinics.

INDIGENOUS HEALTH

Dr. Alexandra King, Cameco Chair in Indigenous Health and Wellness, and the Indigenous Wellness Research Group, are working with First Nations and Métis communities across Saskatchewan to support community-based research and healthcare initiatives.

They aim to change the narrative around Indigenous health and wellness by giving a stronger voice to First Nations and Métis people. Dr. King understands that for Indigenous people, health and wellness go hand-in-hand, where spirituality, mental health and emotional wellness are as important as physical health, and brings this perspective to her work.

“So much of what we do involves spirit. This is different from much of mainstream research where this is ignored or discounted,” she explains. “What does research beyond the intellectual realm, where people provide their thoughts or experience about certain issues, or the emotional realm, where we explore feelings and beliefs, look like?”

The team collaborates with First Nation and Métis communities, supporting them as they undertake their own health and wellness research. Indigenous wellness, as defined by each community is their focus. HIV/AIDS and hepatitis C, along with oft-related issues, are also prioritized. The goal is to build local research capacity and incorporate Indigenous ceremony and land-based and culture-based approaches to health and wellness research.

“We have been fortunate to not only go and visit these communities, but we have been welcomed into them. We have engaged in cultural activities, in ceremony, and that, of course, is completely transforming our thinking about what we need to be doing here,” she said.

Dr. King and her team are currently working on projects including miyo pimâtsiwin, a CIHR-funded project that is establishing a few community-based Indigenous knowledge development centres; a CIHR-funded project to study the INSTI HIV self-test among people at risk for HIV/AIDS; and Peers4Wellness, a CIHR-funded project to explore Indigenous approaches to wellness support for Indigenous women living with HIV and HCV.

FOCUS ON RESEARCH AND QUALITY OF CARE

WELLNESS WHEEL

Wellness Wheel was founded in 2016 in Regina by **Dr. Stuart Skinner** (Infectious Diseases) and **Dr. Bonnie Richardson** (Nephrology) who saw a need to better engage with First Nations communities. The goal was to build a multi-disciplinary, integrated healthcare model for First Nations, led by First Nations, with the Wellness Wheel providing clinical support as required.

Three additional members of the Department of Medicine in Regina are now actively involved in Wellness Wheel: **Dr. Jarol Boan** (GIM), **Dr. Tom Perron** (GIM) and **Dr. Rachel Asiniwasis** (Dermatology).

The Wellness Wheel team also includes Indigenous community leaders, family physicians, nurses, pharmacists, and partners in academic research.



WELLNESS WHEEL CLINICAL CARE

Each month, a Wellness Wheel Care Team travels to geographically remote First Nations communities to provide primary care services based on the requirements and priorities of each community. Team members provide phlebotomy, screening tests, counselling, education, on-the-spot referrals to specialist physicians, and referrals to diagnostic and acute care. These services maximize the value of the visit and reduce patient travel time. By engaging and collaborating with the communities and existing healthcare teams, clinics can be conducted within a culturally responsiveness framework.

The Wellness Wheel team, in collaboration with individual communities, also offers access to harm reduction services, capacity building in HIV and HCV, and support local health events such as “Liver Health” Hepatitis C Awareness and Testing days.



Non-traditional model of care means meeting patients where they are at, both geographically and in a culturally sensitive, community-based framework.

INDIGENOUS HEALTH

Dr. Stuart Skinner continues to expand and grow community-based and Indigenous-led research in First Nation communities. This research is built around improving care delivery, reducing health disparities and pushing for health care system innovation.

He is about half way through a five-year, \$2M CIHR grant in partnership with eight First Nations around expanding and implementing *Know Your Status*, a community led HIV and HCV program.

He also received \$24K as a CoMRAD grant on integrating Indigenous culture with HIV care to reduce HIV-related stigma and enhance HIV screening, diagnosis and linkage to care. He is also completing a project on pharmacy-led HIV testing in Regina.

Dr. Skinner has provided several oral and poster presentations at a wide variety of local, national and international conferences.

WELLNESS WHEEL BY THE NUMBERS



FOCUS ON RESEARCH AND QUALITY OF CARE

Indigenous Communities are deciding their own healthcare priorities. Faculty from a variety of divisions within the Department of Medicine have responded, conducting research to meet community needs.

NOTEWORTHY PUBLICATIONS

C Karunanayake, **J Dosman**, D Rennie, **J Lawson**, **S Kirychuk**, **M Fenton**. (2018). Incidence of Daytime Sleepiness and Associated Factors in Two First Nations Communities in Saskatchewan, Canada. *Clocks & Sleep* 1 (1), 13-25

M Fenton, R Zahan, S Khan, **D Rennie**, C Karunanayake, **J Dosman**. (2018). Spirometric Reference Equations for Pirometric Reference Equations for Cree First Nations Children and Adolescents Living in Rural Saskatchewan, Canada. *Chest* 154 (4)

M Fenton, **B Graham**, S Stanojevic, L Whitford, L Ironstand. 2018. Interpretation of spirometry in Saskatchewan First Nations adults. *Annals of the American Thoracic Society* 15 (10), 1237-1239

S Fayed, M King, C Macklin, J Demeria, N Rabbitskin, B Healy, S Gonzales, **A King**. (2018). In the eyes of Indigenous people in Canada: exposing the underlying colonial etiology of Hepatitis C and the imperative for trauma – informed care. *Canadian Liver Journal*. Vol. 1, October 2018.

D Kremetz, C Macklin, T Fleming, A Kafeety, V Nicholson, S Laframboise, M King, **A King**. (2018). Connections with the land: a scoping review on cultural wellness retreats as health interventions for Indigenous peoples living with HIV and/or hepatitis C. *Aboriginal: Journal of Indigenous Studies and First Nations and First Peoples' Cultures*. Vol. 2, 2018.

D Thomas, A Huang, M McCarron, J Kappel, R Holden, K Yeates, and **B Richardson**. (2018). A Retrospective Study of Chronic Kidney Disease Burden in Saskatchewan's First Nations People. *Canadian Journal of Kidney Health and Disease*, 5, 2054358118799689.

S Skinner, G Cote, I Khan. (2018). Can we eliminate hepatitis C? Hepatitis C virus infection in Saskatchewan First Nations communities: Challenges and innovations. *Canada Communicable Disease Report* 44 (7-8), 173

INDIGENOUS HEALTH

NOTEWORTHY GRANTS

J Dosman, M King, P Pahwa, S Abonyi (Principal Investigators), **M Fenton**, C Karunanayake; D Rennie, **J Lawson**, **N Koehnke**, **R Skomro**, **S Kirychuk** (Co-investigators) Assess, Redress, Re-assess: Addressing Disparities in Sleep Health among First Nations People. Canadian Institutes of Health Research (CIHR). Project Grant Total Funding - \$1,250,775

S Fowler - Understanding and advocating for Miyo-Mahcihowin (good health and well-being) among Indigenous Peoples living with Inflammatory Bowel Disease. SHRF Sprout Grant.

A King

- Leading a team awarded a \$2.84M CIHR Centre grant (i.e., soft infrastructure funding) for Wuniska, a regional research centre for Indigenous people focused on HIV/HCV/STBBIs and oft-related issues. May 2019.
- Co-PI on team awarded a \$6M CIHR team grant for HIV/AIDS biomedical and clinical research. Dr. King's involvement ensures Saskatchewan, where Indigenous people are disproportionately affected by HIV/AIDS and other STBBIs, will help shape, participate in and benefit from this interventional research exploring innovative testing and linkage to care technologies and approaches (e.g., HIV self-testing). April 2019.
- Co-PI on team awarded a \$2.25M CIHR project grant to work with Indigenous communities to create Indigenous community-based knowledge development centres. Partners include First Nation and Métis communities considered leaders in Indigenous health and wellness research. January 2019.
- PI on a \$1.3M CIHR grant for a project called Peers4Wellness: Indigenous approaches to wellness support and research for Indigenous women with HIV and HCV in British Columbia and Saskatchewan. October 2018.

D Marciniuk (Co-Investigator), C LaVallie, JL Sasakamoose, N Starblanket, C Tait (Principal Investigators). Development Proposal: Indigenous Peoples' Health Research Centre – Canadian Institutes of Health Research (CIHR) Network Environments for Indigenous Health Research (NEIHR) Operating Grant, October 2018 to September 2019, \$75,000. 2018/4 - 2023/3

SASKATOON DIVISIONAL REPORTS

CANADIAN CENTRE FOR HEALTH AND SAFETY IN AGRICULTURE (CCHSA)

Director: **Dr. Niels Koehncke**

Faculty:

- Clinicians: 3
- Scientists (non-MDs): 9
- Associate members: 1

- Full Professor: 6
- Associate Professor: 5
- Emeritus Professor: 1



DR. NIELS KOEHNCKE

PUBLICATIONS

Peer-reviewed Publications:	34
Conference Papers or Abstracts:	35
Invited Lectures / Conference Presentations (external):	12

APPOINTMENTS / PROMOTIONS

Welcome to **Allison Cammer**, College of Pharmacy and Nutrition, as an Associate Member of CCHSA

Congratulations to **Dr. Josh Lawson** on his promotion to Full Professor! Well deserved.

HIGHLIGHTS OF PAST YEAR

Dr. James Dosman, who founded CCHSA in 1986, was inducted into the Canadian Medical Hall of Fame at a Ceremony in Montreal on May 2, 2019. He was recognized for his lifelong contributions and accomplishments improving and protecting the health of rural and agricultural workers.

Congratulations Dr. Dosman!



Dr. James Dosman

Dr. Brenna Bath, CCHSA and Associate Professor in the School of Rehabilitation Science, was honoured with the Impact Award from the Saskatchewan Health Research Foundation. The award recognizes research that builds capacity, advances knowledge and informs decision-making in health care and comes with \$3000 to be used towards knowledge translation activities. Her SHRF Establishment Grant, which led to this award, was titled *Advancing interprofessional primary health care services in rural settings for people with chronic low back disorders: Investigation of a physiotherapists and nurse practitioner intervention delivered through Telehealth*.

Congratulations Dr. Bath!

Dr. Catherine Trask was awarded Researcher of the Year for the Department of Medicine, and received the Graduate Advising Excellence Award from the University of Saskatchewan Graduate Students Association. This award honours a graduate student advisor who has shown excellent supervisory and mentoring skills, and embodies the capacity to stimulate graduate students to think critically and creatively, while enhancing their graduate student learning experience. Congratulations on both awards, Dr. Trask!

Dr. Niels Koehncke represented and spoke about CCHSA at the inaugural Pan-American Occupational and Environmental Health Conference in Rio de Janeiro, Brazil in September 2018. This conference brought together researchers and practitioners from across North, South and Central America together, as well as globally, to share and discuss gaps and needs in occupational health research and practice. There was significant

focus on rural and agricultural health and CCHSA was well positioned to highlight its role and importance in Canada. There will be exciting opportunities for sharing outreach and research projects, particularly in agriculture, between Brazil and CCHSA.

SIGNIFICANT HONOURS & AWARDS

Dr. Lawson won the Best Presentation award for his abstract session at the European Academy of Allergy and Clinical Immunology (Lisbon, Portugal)

LEADERSHIP ROLES AND ACTIVITIES

Dr. Koehncke completed the Leadership Development Program through the Edwards School of Business in 2019. He continues his role nationally with Occupational Medicine Specialists of Canada, serving as Past-President. He also sits on the Canadian Standards Association Technical Committee for the CSA Standard Psychological Health and Safety in the Workplace.

Kendra Ulmer, RN, represents CCHSA as a member of the Saskatchewan Farm Health and Safety Council, Ministry of Labour Relations and Workplace Safety.

Dr. Lawson became an Elected Board member of the European Academy of Allergy and Clinical Immunology-Epidemiology Working Group.

Dr. Trask serves as Board Member and Past President, Canadian Association of Research on Work and Health (CARWH).

SIGNIFICANT PLANS FOR YEAR AHEAD

CCHSA will undertake a review and update of two strategic plans: The CCHSA Strategic Plan and the strategic plan for the Agricultural Health and Safety Network. Many important elements of both plans have been met or are in the process of being met, but at the same time opportunities and priorities (locally, provincially, and nationally) have changed and require a review of our strategic planning.

The Agricultural Health and Safety Network plans to grow its outreach capacity, with increased RM membership and growth of successful KT programs such as the Discovery Days, workshops, clinics (hearing and respiratory) and webinars.

If you wish to reach rural Saskatchewan with your research results and impacts, please keep the Network in mind! The Network can reach over 25,000 rural families and farmers (and growing) across Saskatchewan!

CCHSA and the Agricultural Health and Safety Network will begin the process of supporting the knowledge translation needs of eight applied agri-safety research programs across Canada, coordinated by Agrivita Canada Inc. This represents a significant endeavor, with opportunity to reach producers and agricultural workers across the country, informing them of important applied research projects that can help improve health and safety in their operations.

PARTICULARLY NOTEWORTHY PUBLICATIONS

B Bath, B Jaindl, L Dykes, J Coulthard, J Naylen, N Rocheleau, L Clay, M Khan, **C Trask**. (2019). Get 'Er Done: Experiences of Canadian Farmers Living with Chronic Low Back Disorders. *Physiotherapy Canada*. 2019 Jan;71(1):24-33.

M Mayer, N **Koehncke**, N Sidhu, T Gallagher, C Waldner. (2019). Effect of Full Versus Open Palm Hand Shielding on Worker Radiation Dose During Manual Restraint for Small Animal Radiography. *Canadian Veterinary Journal*. 2019 83(2):154-158.

W Pickett, N King, B Marlenga, **J Lawson**, L Hagel, V Elliot, **J Dosman**, for the Saskatchewan Farm Injury Cohort Study Team. (2018). Exposure to agricultural hazards among children who visit farms. *Paediatrics & Child Health*. 2018; 23(7): e143-e149. <https://doi.org/10.1093/pch/pxy015>.

D Schneberger, B Thompson, US Pandher, **S Kirychuk**. (2019). CO2 Exposure Can Modify Innate Immune Responses to Organic Dust and LPS B25. Occupational Exposures Including deployment related, mining and agriculture. Abstract. *American Thoracic Society*, May 2019.

AF Chow, **D Morgan**, M Bayly, J Kosteniuk, V Elliot. (2019). Collaborative Approaches to Team-Based Primary Health Care for Individuals with Dementia in Rural/Remote Settings. *Canadian Journal on Aging/La Revue canadienne du vieillissement*. 1-17.

M Jankowski, M Krzystanek, J Zejda, P Majek, J Lubanski, **J Lawson**, G Brozek. (2019). E-cigarettes are more addictive than traditional cigarettes – study in highly educated young people group. *International Journal of Environmental Research and Public Health*. 2019.

N Pendelton, T Bradley, P MOnal, M Inman, **R Dyck**, M Nour. (2018). A Retrospective Review of the Early Clinical Courses of Childhood-Onset Diabetes Mellitus Type 2. *Canadian Journal of Diabetes* 42 (5) S14/

PARTICULARLY NOTEWORTHY GRANTS / CONTRACTS

The CCHSA Agricultural Health and Safety Network received \$20,000 (over two years) in sponsorship from The Saskatchewan Wheat Development Commission and the Saskatchewan Canola Development Commission in support of Discovery Days, a unique and popular school-age program providing farm health and safety education to rural school children in grades 4 - 6. This program has already reached thousands of children from schools across Saskatchewan!

CCHSA received \$100,000 from the Saskatchewan Ministry of Agriculture to help support the activities of the Agricultural Health and Safety Network. This support is crucial to the outreach capacity of the Network, and represents a unique relationship across Canada. Thank you to the Saskatchewan Ministry of Agriculture!

Agrivita Canada Inc., will receive \$2.85M (matched to \$5.7M) from Agriculture and Agrifood Canada for eight proposed applied agri-safety research projects, and CCHSA will contribute to this program by providing the knowledge translation and dissemination for all the projects. Agrivita is committed to ensuring that farmers and agricultural workers have a standard of occupational health and safety equivalent to other industries, and is led by Dr. Dosman as President and CEO.

CARDIOLOGY

Division Head: **Dr. Erik PausJensen**

Faculty:

- Professor: 1
- Clinical Associate Professor: 2
- Assistant Professor: 15
- Emeritus Professor: 1

PUBLICATIONS

Peer-reviewed Publications: 31
Books, Chapter, Expository and
Review Articles: 3

NEWLY FACULTY APPOINTMENTS

Welcome to **Dr. Jay Shavadia** and **Dr. Sarah Parent** who joined the Department as faculty members during the past year.

HIGHLIGHTS OF PAST YEAR

In July 2018 the division of Cardiology successfully recruited **Dr. Shavadia** as a clinician researcher. Dr. Shavadia completed a two year fellowship in Interventional Cardiology at the University of Alberta as well as a two year research fellowship and Masters at Duke University. Dr. Shavadia is an excellent clinician and has been very productive in building the cardiovascular research portfolio in Saskatoon. He recently has two noteworthy publications in JACC Cardiovascular Interventions. These articles received a lot of press and were highlighted by TCTMD, Heart.org and Reuters Health. These articles highlighted delivery and improvement of the process of STEMI care.



DR. ERIK PAUSEJENSEN

In December 2018, **Dr. Parent** joined the Division of Cardiology in Saskatoon. Dr. Parent completed her Internal Medicine residency at the University of Saskatchewan and then completed her Cardiology residency at the University of Alberta. She has completed fellowships in Echocardiography and Advanced Heart Failure/Cardiac Transplant at the University of Alberta. Since her return to Saskatoon, she has been busy expanding the utilization of 3D echo and contrast imaging within the SHA echo lab. Dr. Parent has been working with Dr. Zhai and Dr. Haddad to help expand the services of the Heart Function Clinic as well as the Cardiac Transplant Clinic.

This is the fourth year the Cardiology division has participated in the Annual Walk of Life fundraising campaign, a national program that promotes cardiac rehabilitation. More than 200 participants and volunteers took part in the event in early June, raising more than \$35,000 to enhance local programs. The funds support the cardiac rehabilitation program, Heart Function Clinic, Cardiology Ward 6000 and CCU.

SIGNIFICANT PLANS FOR COMING YEAR

Dr. Janine Eckstein was successfully recruited to the Saskatoon Cardiology division and starts her practice as of July 2019 in Saskatoon. Dr. Eckstein recently completed a two year fellowship in Interventional Cardiology and Structural Heart Disease at the University of Toronto.

She is the first cardiologist in our province with a formal one year structural fellowship with expertise in procedures including TAVR (transcatheter aortic valve replacement) and percutaneous mitral valve clip interventions. With her arrival and leadership, we will be expanding the cardiology structural program in Saskatoon.

NOTEWORTHY PUBLICATIONS

J Shavadia, A Chen, A Fanaroff, J de Lemois, M Kontos, T Wang. (2019). Intensive Care Utilization in Stable Patients With ST-Segment Elevation Myocardial Infarction Treated with Rapid Reperfusion. *JACC Cardiovasc Interv.* 2019 Apr 22;12(8):709-717.

J Shavadia, M Roe, A Chen, J Lucas, A Fanaroff, A Kochar, C Fordyce, J Jollis, J Tamis-Holland, T Henry, A Bagai, M Kontos, C Granger, T Wang. (2018). Association Between Cardiac Catheterization Laboratory Pre-Activation and Reperfusion Timing Metrics and Outcomes in Patients with ST Segment Elevation Myocardial Infarction Undergoing Primary Percutaneous Coronary Intervention: A Report From The Action Registry. *JACC Cardiovasc Interv.* 2018 Sept 24;11(18):1837-1847.

The provincial TAVR team has recently started to perform TAVR implants in Saskatoon. Dr. Eckstein will be instrumental in promoting the development of the mitral valve clip program that will ultimately improve care for the patients of our province.

In the upcoming year our division will be busy with the development of a few multidisciplinary clinics. These clinics include a Cardiology Oncology Clinic that will be led by **Dr. Parent** from cardiology, in conjunction with members from the oncology team.

We will also be establishing a Women's Cardiovascular Clinic that will be led by **Dr. Eckstein**. This multidisciplinary clinic will aim to improve access and management for women with cardiovascular disease.

In July 2019 the division of Cardiology will establish a formal cardiology consult service at St Paul's Hospital. This service will run seven days a week (8am - 5pm) with afterhours consults managed via ACAL/cardiologist on call at RUH. We are hoping to improve access and improve cardiovascular care in the patient population at S Paul's Hospital

DERMATOLOGY

Division Head: **Dr. Duane Lichtenwald**

Faculty: 6 Clinicians

- Clinical Associate Professor: 1
- Assistant Professor: 5

HIGHLIGHTS OF PAST YEARS

Dr. Angela Law and **Dr. Nicole Hawkins** initiated three clinical trials at Skinsense Dermatology.

All members of the division continue to mentor students and residents in private practice clinics. Four members of the division lectured in the Dermatology Systems course.

HONOURS AND AWARDS

Dr. Duane Lichtenwald was awarded *Practitioner of the Year* in June 2019 at the Canadian Dermatology Association annual convention.

PARTICULARLY NOTEWORTHY PUBLICATIONS

J Mayba and **K Cullingham**. (2019). Blue rubber bleb nevus syndrome. *CMAJ* July 29, 2019 191 (30) E8.

LEADERSHIP ROLES AND ACTIVITIES

Dr. Hawkins, Examiner, Royal College of Physicians and Surgeons of Canada

Dr. Hawkins, Lecture, Tranexamic acid in melisma to the Canadian Dermatology Association Annual Meeting

Drs. Lichtenwald and **Hawkins**, Reviewers, *Journal of Cutaneous Medicine and Surgery*.

PLANS FOR COMING YEAR

Dr. Hawkins has announced her departure to Calgary Sept 2019.

Dr. Kirsten Walker (another return of service resident) is due to join the division in the 2019 – 2020 academic year.

ENDOCRINOLOGY & METABOLISM

Division Head: **Dr. Nassrein Hussein**

Faculty: 4 Clinicians

- Clinical Associate Professor: 2
- Assistant Professor: 2

LEADERSHIP ROLES AND ACTIVITIES

Dr. Nassrein Hussein took on the role of Division Head for the division of Endocrinology, Saskatoon – Saskatchewan Health Authority.

Dr. Terra Arnason is actively involved with the Royal College of Physicians and Surgeons of Canada serving as an Invited Voting member and Canadian Region 2 representative in the CPSC Subspecialty Committee for Endocrinology. She is also an Invited Examiner. She is also a member of the College of Reviewers in the Canadian Institute of Health Research, Cancer Biology and Therapeutics Panel.

HONOURS & AWARDS

Dr. Gudrun Caspar-Bell received the Unified Head Award for the Department of Medicine for 2019 Clinician of the Year.

PLANS FOR COMING YEARS.

Dr. Hussein – plans for Multidisciplinary Risk Reduction Clinics.

HIGHLIGHTS OF PAST YEAR

National Debate won by Saskatchewan Endocrinologist:

Arnason, T and Lau, D. 2018. *Intermittent fasting is a simple and healthy additional to type 2 diabetes management*. Invited plenary debate. 2018 Annual Diabetes Canada /



DR. NASSREIN HUSSEIN

Canadian Society of Endocrinology and Metabolism Professional conference. Halifax. N.S. October 12, 2018. Delivered as a “Battle of the Titans” debate session, audience of 1000. Arnason won debate!

Two patents granted:

1. T Harkness and **T Arnason**. 2019. *Methods and uses of APC modulators for treating cancer*. US Provisional Application 62/744,271: (1st Filed Oct 11, 2018) (2nd Filed April 4, 2019)
2. T Harkness, **T Arnason**, and P Bhowmil. 2019. *Peptides and methods and uses thereof for modulating Anaphase Promoting Complex (APC) activity*. PCT Application PCT/CA2018/050414 (Publication No. WO2018/184107): (1st Filed April 4, 2018) (2nd Filed April 4, 2019)

Dr. Arnason as Physician Lead, Order Sets for diabetic ketoacidosis. 2 forms: Initial management and maintenance order – rolled out at RUH Nov 2018.

NOTEWORTHY PUBLICATIONS

S Ezzat, **G Caspar-Bell**, C Chik, M Denis, M Domingue, S Imran, M Johnson, H Lochnan, B Grégoire Nyomba, A Prebtani, R Ridout, J Ramirez, S Van Uum. (2019). Predictive Markers for Postsurgical Medical Management of Acromegaly: A Systematic Review and Consensus Treatment Guideline. *Endocrine Practice*, 25(4), 379-393.

BOOKS CHAPTERS

T Arnason and K Mansell. Diabetes Mellitus. *In: Compendium of Therapeutic Choices 2019* (CTC 2019). Ottawa (ON): Canadian Pharmacists Association; 2018. RxTx [Internet]. Ottawa (ON): Canadian Pharmacists Association; 2019. Arnason T, Mansell K. Diabetes Mellitus; [updated 2019 Feb 1].

PUBLISHED CONFERENCE ABSTRACTS

K Mansell, A Cameron, **T Arnason**. (2019). Evaluation of the Effects the Freestyle Libre™ Glucose Monitor has on Behaviour, Diet and Exercise in People with Diabetes, Published in: *Conference proceedings of the American Pharmacists Association*. 2019.

B Hiebert, K Harrison, A Panahifar, A Ashique, **T Arnason**, J Andronowski. (2018). Models of Elevated Cortical Bone Remodeling in the Rabbit: Platforms for Longitudinal Imaging of Basic Multicellular Units. *Journal of Bone and Mineral Research*. 2018 (33):377-378.

T Arnason and T Harkness. (2018). Adjunct metformin use in breast cancer. *3rd Global insight conference on breast cancer*.

T Harkness and **T Arnason**. (2018). Activation of the anaphase promoting complex as a potential therapeutic approach to treating breast cancer" *3rd Global insight conference on breast cancer*.

M. Nour, M Inman, **T Arnason**, (2018). Infantile Arterial Calcification and Subsequent Hypophosphatemia due to ENPP1 mutation – a case followed through to Adulthood. *Hormone Research in Paediatrics*. (90): 180 – 181.

NOTEWORTHY GRANTS / CONTRACTS

T Arnason (Principal Investigator) and T Harkness (Co-principal Investigator). Overcoming multiple Drug resistance in malignancy: climbing the evolutionary ladder. \$17,812. Department of Medicine Research Award (2018-19)

T Harkness (Principal Investigator), R Laprarie (Co-principal Investigator), **T Arnason** (Co-investigator) Discovery and development of novel compounds that activate the Anaphase Promoting Complex as a novel approach to treating recurrent cancers. \$20,000. College of Medicine Research Cluster funding Drug Discovery & Development Research Cluster.

GASTROENTEROLOGY & HEPATOLOGY

Division Head: **Dr. Anil Bedi**

Faculty: 11 Clinicians

- Full Professor: 1
- Clinical Professor: 1
- Assistant Professor: 9

APPOINTMENTS / PROMOTIONS

The department welcomes two Hepatologists, **Dr. Mina Niazi** and **Dr. Nabeel Samad**.

LEADERSHIP ROLES

The members of our Division continue to support the academic mission of the University of Saskatchewan, and College of Medicine Department of Medicine with a number of leadership roles

- **Dr. Tom Guzowski** - clinical lead for Point of Care Ultrasound (POCUS) for Department of Medicine. Presented Grand Rounds on POCUS in May 2019. Dr. Guzowski is also a Competency Committee member.
- **Dr. Samson Haimanot** - Deputy chair of Endoscopy Executive Committee.
- **Dr. Sharyle Fowler** Assistant Program Director, Internal Medicine.

HIGHLIGHTS OF PAST YEAR

Dr. Fowler has collaborated with Rheumatology to establish a joint IBD-Rheumatology Clinic, and continues an active clinical trials program offering new therapeutic options to patients with disease refractory to commercially available treatments.



DR. ANIL BEDI

Dr. Samad has partnered with Saskatchewan Infectious Disease Care Network and is working in Saskatoon's west-side core neighbourhood to deliver better care to the Hep C populations.

SIGNIFICANT PLANS FOR YEAR AHEAD

Dr. Niazi, Dr. Lawrence Worobetz, and **Dr. Samad** will establish a chronic liver disease clinic which will collaborate across other subspecialties. Dr. Niazi will use data through the Ministry of Health to identify the number of cirrhotics and those with chronic liver disease in Saskatchewan to determine area of highest need. Dr. Samad will take a mini sabbatical to get POCUS training.

Dr. Guzowski - Continue working on his Doctorate of Education (project proposal submission by February 2020 and subsequent candidacy examination); to present lectures on the utility of intestinal ultrasonography in Saskatoon, Winnipeg, Regina, and Ottawa; to be a trainer for intestinal ultrasonography - will receive out

of province trainees under the umbrella of IBUS (international bowel ultrasound group) to complete further POCUS training.

Dr. Fowler - Applying for a SHRF Sprout grant (Medical Cannabis for the treatment of IBD); continuing to look at administrative data on health outcomes for IBD patients across the province - differences in rural/urban residents, Indigenous patients, seniors, outcomes in pregnancy; complete SHRF Establishment grant on IBD in pregnancy.

Dr. Haimanot has completed training in Endoscopic Submucosal Dissection (ESD) and Per Oral Endoscopic Myotomy Surgery (POEMS) under world expert mentors. ESD allows large tumours to be removed en bloc for better oncologic outcomes. POEMS is a new technique that allows patients with achalasia to have treatment that replaces Heller myotomy. These endoscopic treatments are currently only offered at a small handful of centres in Canada.

PARTICULARLY NOTEWORTHY GRANTS / CONTRACTS

S Fowler - Cannabidiol in IBD: Assessment of current use in Saskatchewan and Phase I dose escalation study. CoMRAD

S Fowler - Understanding and advocating for Miyo-Mahcihowin (good health and well-being) among Indigenous Peoples living with Inflammatory Bowel Disease. SHRF Sprout Grant.

S Fowler - Healthcare utilization and access to care in patients with IBD in rural Saskatchewan. SHRF Sprout Grant.

GENERAL INTERNAL MEDICINE

Division Head: **Dr. Kempe Gowda**

Faculty: 37 Clinicians

- Clinical Professor: 3
- Associate Professor: 2
- Clinical Associate Professor: 2
- Assistant Professor: 30

APPOINTMENTS

Welcome to **Dr. Alia Teja** who joined our team in Saskatoon on July 1, 2018, and to **Dr. Jonathon Dean** who will join our Division on July 1, 2019.

HIGHLIGHTS OF PAST YEAR

Dr. Heather Ward was named a CBD innovator by the Royal College of Physicians and Surgeons of Canada. Dr. Ward received the Unified Head Award for the Department of Medicine Teacher of the Year, May 2019.

Dr. Dean Nationally Selected 2018 Resident Doctors of Canada (RDOC) Puddester Award for Resident Wellness.

Dr. Eileen Szabo is leading the Nocturnal House Officer Program at Saint Paul's Hospital (SPH) and is actively recruiting physicians to provide consistent coverage at SPH.

Dr. Alexandra King and her team received four CIHR grants focusing on Indigenous wellness. Read more in the Indigenous Health section of this report starting on page 16.



DR. KEMPE GOWDA

Dr. King presented the keynote speech, *Indigenous health and wellness measurement considerations from Canada*, at the Australian National University's Inaugural Indigenous health and medicine symposium in Canberra, Australia in November 2018.

She was also awarded the 2019 Poster of Distinction at the Canadian Liver Meeting in Montreal in May 2019, where the IWRG team delivered three presentations: *A Two-eyed Seeing approach to holistic healing and wellness for people with drug use experience*; *Stamsh Slhanay Lhawat: Warrior women healing*; and *Peers4Wellness: Indigenous model for supportive HCV and HIV care*.

CLINICAL CARE

The General Internal Medicine Division is comprised of 36 faculty members and two locums who provide clinical services to the Saskatoon area. They provide coverage to 15 - 16 units per week at the three primary care sites.

St. Paul's Hospital (SPH)

- Six accountability care units
- One overflow unit
- One surgical consult service coverage

Saskatoon City Hospital (SCH)

- Covering CU unit
- One internist covering for surgical consults and pre-assessment unit

Royal University Hospital (RUH)

- Coverage for three clinical teaching units and at times a fourth overflow unit
- One GIM consult service

EDUCATION

GIM Program Director: Dr. H Ward

Provincial Teaching Faculty for GIM Division:

49

PGY 4: 4

PGY 5: 3

SITE

Saskatoon: Acute Care: Royal University Hospital, St. Paul's Hospital, Saskatoon City Hospital

Ambulatory Care: GIM Community offices

Prince Albert: Victoria Hospital (elective community rotation)

Swift Current: Cypress Regional Hospital (required community rotation)

Regina: Regina General Hospital and Pasqua Hospital (elective rotations)

MISSION: (GOAL)

Upon completion of training, a General Internal Medicine resident is expected to be a competent subspecialist capable of assuming a GIM consultant's role. It is recognized that General Internists have diverse careers with a variety of focus including clinical, administrative and research, including education, quality improvement, and scholarly work. The program is therefore designed to facilitate the development of competencies enabling the resident to meet societal needs by tailoring, in conjunction with the program director, their training to their anticipated GIM career.

Royal College of Physicians and Surgeons
Subspecialty Committee

Medical education, scholarly work, including quality improvement and education, as well as excellence in clinical teaching creates a robust learning environment within the GIM division.

The GIM division possesses a solid background in medical education with four of its members having either completed or undergoing additional learning in medical education.

Dr. Allie Budd has completed a Master's Degree in Health Professions Education from the University of Ottawa. **Dr. Ward** has completed a Diploma in Postgraduate Medical Education from the University of Dundee.

Dr. Teja is in the final stages of a Master's Degree in Health Professions Education from John Hopkins University and **Dr. Dean** is nearing completion of a Certificate in Medical Education from the University of Dundee.

EDUCATIONAL LEADERSHIP POSITIONS

Dr. Sharon Card is the outgoing chair of the GIM subspecialty committee of the RCPSC and CBD Lead for PGME at the University of Saskatchewan.

Dr. Ward is the newly appointed Director of Education for the Department of Medicine.

SELECT ACCOMPLISHMENTS IN PAST

YEAR

Dr. Card and Dr. Colin Gebhardt -

Participation in a Consensus Report from the Canadian Internal Medicine Ultrasound (CIMUS) group.

Participation in the development of an online handover toolkit, published by the Royal College of Physicians and Surgeons of Canada.

Dr. Ward co-author. Section 2 –

Communication and Teamwork: The Foundations of Effective Handover Huth K, Ward H. and Section 5 – Learning Resources for Handover: Handover Curriculum Development. Ward H, Nakajima A, Rayar M. in Bismilla Z, Wong B. Handover Toolkit: A resource to help teach, assess and implement a handover improvement program. Royal College of Physicians and Surgeons of Canada; 2018

SELECT SCHOLARLY ACTIVITY

CLINICAL RESEARCH ACTIVITIES

Dr. Prystajewsky, Event adjudicator, HIP ATTACK Trial

Dr Shahid, Assessing the Impact of Health Literacy on Patient Outcomes in Hospitalized Patients.

Dr. Michael Prystajewsky - Quality Improvement/ Patient Safety longitudinal curriculum inclusive of an ongoing systems QI project.

Dr. Jessie Baptiste CBD Lead - CBD Implementation: inclusive of descriptor levels for each Entrustable Professional Activity to facilitate feedback.

SIGNIFICANT PLANS FOR THE COMING

YEAR

GIM is implementing CBD beginning July 1, 2019. The program's approach is implementation and ongoing quality improvement as an iterative approach with co learning between residents and faculty. The introduction of CBD has the potential to strengthen our learning environment. Our goal as a division is to align educational initiatives, scholarly work and clinical activities with a co learning approach to continuously improve health systems and patient care.

Dr. Ward has completed a 6 and a half year term as GIM Program Director June 30, 2019.

Dr. Baptiste will be the new program director beginning July 1, 2019.

CLINICAL GERONTOLOGY

Division Head: **Dr. Jenny Basran**

Faculty: 1 Clinician

- Associate Professor: 1
- 4 Family Physicians work in the Geriatric Evaluation and Management (GEM) program

CLINICAL CARE

As the only Royal College Internist Geriatrician in Saskatchewan, Dr. Basran shares the clinical work with four family physicians in the Geriatric Evaluation and Management (GEM) program. The GEM physicians work with a full interdisciplinary team to provide home visits, outpatient clinics, consult service to all three Saskatoon hospitals, as well as a day hospital for frail older adults from across Saskatchewan.

In addition to providing comprehensive geriatric assessment and management, a key priority for the GEM program is education on geriatric core competencies to undergraduate students as well as practicing clinicians. The GEM team also supported the development and training of the Community Health Centre at Market Mall where Dr. Basran spends her remaining clinical care time.

In addition to clinical care, Dr. Basran is the Senior Medical Information Officer for the Saskatchewan Health Authority, where she is focusing on improving data and analytics, as well as co-leading system flow innovation projects within the Digital Health portfolio.



DR. JENNY BASRAN

NATIONAL LEADERSHIP ROLES

J Basran - Core member, Health Technology Expert Panel (HTERP) at CADTH - Canadian Agency for Drugs and Technologies in Health (2015-2019). See associated publications of note below.

J Basran - Member, Ad Hoc Primary Care and Specialist National Formulary Panel, Health Canada - report submitted to Advisory Council on the Implementation of National Pharmacare.

HIGHLIGHTS OF PAST YEAR

J Basran - Physician Co-Lead for the implementation of the community based component of the Saskatchewan Health Authority's Connected Care Strategy which culminated in the opening of the Community Health Centre at Market Mall in November, 2018.

J Basran - Member, Ad Hoc Primary Care and Specialist National Formulary Panel, Health Canada - report submitted to Advisory Council on the Implementation of National Pharmacare.

J Basran - Invited Expert, Dementia Villages Policy Statement, Canadian Agency for Drug and Technologies in Health.

J Basran - Lead, Evaluation team for Seniors House Calls pilots – SaskMinistry of Health.

PLANS FOR NEXT YEAR

In the year ahead, GEM team members will be partnering with others in the Saskatchewan Health Authority to develop a delirium pathway across the continuum of care. GEM will also be participating in the development of the Shared Care Plan.

Two new faculty members have been successfully recruited to join the Division of Geriatric Medicine in the 2020 – 2021 academic year. Recruitment efforts for additional members will continue.

PUBLICATIONS OF NOTE

J Basran - Invited Co-author. Keeping People Engaged in Rehabilitation. Chapter in: *A Comprehensive Guide to Rehabilitation of the Older Patient*, 4th Edition.

The national reports that came out of work with the CADTH will be used to guide decision making in all provinces. They include the following:

- *HPV Testing for Primary Cervical Cancer Screening: Recommendations Report*. Ottawa: CADTH; 2019 Mar. (CADTH Optimal Use Report; vol. 7, no. 1c). ISSN: 1927-0127
- *Optimal Use of Minimally Invasive Glaucoma Surgery: Recommendations*. Ottawa: CADTH; 2019 Mar. (CADTH Optimal Use Report, vol.8, no.1c). ISSN: 1927-0127
- *Internet-delivered cognitive behavioural therapy for major depressive disorder and anxiety disorders: patient's experiences and perspectives, implementation, and ethical issues*. Ottawa: CADTH; 2019 Feb. (CADTH Optimal use report; vol. 8, no. 2b) ISSN: 1927-0127
- *Axicabtagene Ciloleucel for Large B-Cell Lymphoma: Recommendations*. Ottawa: CADTH; 2019 Aug. (CADTH Optimal Use Report; vol. 9, no. 1f). ISSN: 1927-0127
- *Dementia Villages — Position Statement*. Ottawa: CADTH; 2019 Oct. (CADTH Health Technology Expert Review Panel position statement).

GRANTS OF NOTE

S Kontulainen (PI), **J Basran** (co-investigator) Efficacy of Nordic Walking to Improve Physical Function, Quality of Life, and Posture in Women With Osteoporosis, History of Vertebral Fracture or Hyperkyphosis. Saskatchewan Health Research Foundation (SHRF) Sprout Grant – in collaboration with Saskatchewan Centre for Patient-Oriented Research SCPOR. \$160,000. 2018-2020.

INFECTIOUS DISEASES

Division Head: **Dr. Stephen Sanche**

Faculty: 6 Clinicians

- Associate Professor: 2
- Assistant Professor: 4

HIGHLIGHTS OF PAST YEAR

Dr. Shaqil Peermohamed and Justin Kosar, Antimicrobial Stewardship Pharmacist, were top finalists for two national competitions in 2019:

- The Association of Medical Microbiology and Infectious Diseases (AMMI) Canada Incubator Award
- The Canada CHIA Innovation in Care Delivery Team Award.

The infectious diseases service at Royal University Hospital functioned as a combined adult/ pediatric service for over 30 years. With new pediatric ID recruitment made possible by the opening of the Jim Pattison Children's Hospital Pediatric Infectious Diseases officially became a separate service effective July 1, 2019.

Noteworthy Publications

Z Brumme, N Kinloch, **S Sanche**, **A Wong**, E Martin, K Cobarrubias, P Sandstrom, P Levett, P Harrigan, J Joy. (2018). Extensive host immune adaptation in a concentrated North American HIV epidemic. *AIDS (London, England)* 32 (14), 1927-1938

M Arget, J Kosar, B Suen, **S Peermohamed**. (2019). Successful Treatment of Legionnaires' Disease with Tigecycline in an Immunocompromised Man with a Legion of Antibiotic Allergies. *Cureus* 11(4).

N Mohammadzadeh, T Follack, R Love, K Stewart, **S Sanche**, L Chelico. (2019). Polymorphisms of the cytidine deaminase APOBEC3F have different HIV-1 restriction efficiencies. *Virology*. 527: 21-31.



DR. STEPHEN SANCHE

SIGNIFICANT PLANS FOR YEAR AHEAD

Recruitment remains the top priority of the Division of Infectious Diseases.

Dr. Geoff Shumilak will join our team in the second half of 2019 with a dual clinical commitment to Infectious Diseases and Critical Care.

NEPHROLOGY

Division Head: **Dr. Rod Stryker**

Faculty: 13 Clinicians

- Full Professor: 2
- Associate Professor: 10
- Assistant Professor: 1

PUBLICATIONS

Peer reviewed Publications:	15
Conference Papers / Abstracts:	4
Invited Lectures, or Conference Presentations:	1



DR. ROD STRYKER

LEADERSHIP ROLES AND ACTIVITIES

Dr. R Stryker:

- Appointed Division Head for the division of Nephrology, Saskatoon-Saskatchewan Health Authority

Dr. Joanne Kappel:

- Provincial Medical Lead for Kidney Health, Saskatchewan Health Authority
- Project Co-Lead for CanSOLVE project: Improving Indigenous Patient Knowledge about Treatment Options for Failing Kidneys
- Co-Chair of CanSOLVE Knowledge Translation/Knowledge User Committee
- National Kidney Foundation of Canada Programs and Public Policy Committee

Dr. Elene van Der Merwe:

- Member, National Conservative Kidney Management Group

Dr. James Barton:

- Associate Dean, Continuing Medical Education, College of Medicine, University of Saskatchewan
- Committee member Professional Learning and Development Committee- Royal College of Physicians and Surgeons of Canada
- Mainpro+ Assessment Working Group, by Invitation Committee member, College Family Physicians Canada

Dr. Rahul Mainra:

- Vice Chair, Kidney Transplant Advisory Committee, Canadian Blood Services
- Canadian Society of Transplant Education Committee
- Director of Undergraduate Medical Education for the Department of Medicine, University of Saskatchewan

HIGHLIGHTS OF PAST YEAR

Dr. Barton - Invited to be a Faculty Facilitator for *Leading Innovations in Health Care and Education* - Harvard Medical School Continuing Medical Education, Harvard Macy Institute 2018 and 2019.

Continued significant increase in the number of Saskatchewan residents who have received a kidney transplant to manage their End Stage Kidney Failure (48% more kidney transplants delivered in 2018 compared to 2016). This increase in kidney transplants is related to work associated with the following:

- an increased public awareness campaign by Saskatchewan Transplant Program,
- the Living Kidney Donor Paired Exchange Program with other Canadian provinces,
- the establishment of the new Organ Donor Program in Critical Care which has also allowed for organ donation after cardiac death.

NOTEWORTHY PUBLICATIONS

R Mainra, G Wong, H Pilmore, WH Lim. (2019). Association of prevalent vascular disease with allograft failure and mortality in live-donor kidney transplant recipients-a retrospective cohort study. *Transplant International*;32 (11):1161-1172.

K Sawicka, N Hassan, C Dumaine, **A Budd**, C Wall, T Banerjee, H Lim, P Mondal, **J Barton**, M Moser. (2019). Direction of the Biopsy Needle in Ultrasound-Guided Renal Biopsy Impacts Specimen Adequacy and Risk of Bleeding. *Canadian Association of Radiologists Journal Epub* March 27.

L. New, **D Goodridge**, **J Kappel**, G. Groot, R. Dobson. (2019). "I just have to take it" – patient safety in acute care: perspectives and experiences of patients with chronic kidney disease. *BMC Health Services Research*: 19 (1), 199

PLANS FOR COMING YEARS

Dr. Amanda Halpin will join the division of Nephrology in November 2019. She is the most recent resident physician to complete her FRCPC Nephrology Fellowship training at the University of Saskatchewan. She will continue to complete additional training with a Master's in Public Health. Her focus and research currently includes study of symptom burden and frailty in patients with kidney failure receiving hemodialysis.

Ongoing outreach, collaboration and study with communities in Northern Saskatchewan. There are two major goals for these communities:

- continue to enhance detection and delivery of care for persons living with chronic kidney disease
- increase delivery of home-based dialysis therapies so as to reduce the burden of travel or relocation

NEUROLOGY

Division Head: **Dr. Alex Rajput**

Faculty: 16 Clinicians

- Full Professor: 4
- Clinical Professor: 1
- Associate Professor: 1
- Assistant Professor: 9
- Emeritus Professor: 1

PUBLICATIONS

Peer-reviewed Publications:	26
Books, Chapter, Expository and Review Articles:	9
Conference Papers or Abstracts:	37
Invited Lectures / Conference Presentations (external):	11



DR. ALEX RAJPUT

APPOINTMENTS / PROMOTIONS

Dr. Alexandra Carter joined the Division in July 2018.

Dr. Brett Graham named Medical (co) Director of Stroke Prevention Clinic, May 2019.

Dr. Kerri Schellenberg promoted to Associate Professor effective July 1, 2019.

LEADERSHIP ROLES AND ACTIVITIES

Dr. Graham – 2019 Secondary Prevention of Stroke writing committee for the Canadian Stroke Best Practice Recommendations, to be published in the fall of 2019 in the *International Journal of Stroke*.

Dr. Jose. Tellez-Zenteno – *Frontiers in epilepsy* (Editor), 2018 – present

Dr. Rajput (Division Head) – member of Provincial Neurosciences Executive Council, Saskatchewan Health Authority, January 2019 – present.

Dr. Michael Levin – National Canadian MS Treatment Optimization Committee, Progressive Disease Treatment Lead, 2018 – present.

Dr. Andrew Kirk – Physical Medicine and Rehabilitation Department Provincial Review Committee, 2019 – present.

Dr. Schellenberg – Canadian Best Practice Recommendations for the Care of Patients with ALS (guideline participation), 2018 – present.

HONOURS & AWARDS

Dr. Tellez -Zenteno – 2019-23 National Researcher National System of Researchers of Mexico, (CONACYT National Council of Science and Technology of Mexico), Level III, based in Canada (2019-23). This is an honorific position given by the government of Mexico through the CONACYT in recognition of overall scientific productivity.

HIGHLIGHTS OF PAST YEAR

Stroke program: Provincial stroke pathways are established for management of acute stroke and for management of TIA. The revised stroke window for first responders (EMS) has been extended to 24 hours.

Dr. Graham and Dr. Mike Kelly (Neurosurgery) have had an integral role with pathway development.

Dr. Gary Hunter received a CoMRAD (College of Medicine Research Award) grant to assess the use of a tablet style bedside echo vs conventional echo in stroke (FOCUS study). He will be supervising **Dr. Ben Leis** (Cardiology fellow) for his Masters with this project. Dr. Hunter is also local PI for TEMPO2 (Tnk in stroke, ongoing) and sub investigator for ESCAPE NA1 (neuroprotective Drug in thrombectomy).

Dr. Levin presented a paper at the International Society of Neuroimmunology Meeting in Australia in August 2018 titled *Mechanism of Disease: The Contribution of Dysfunctional RNA Binding Proteins and Stress Granule Formation to the Pathogenesis of Neurodegeneration in MS*, and concurrently announced the publication of a manuscript titled *Dysfunctional RNA binding proteins and stress granules in MS*. (Journal of Neuroimmunology). These findings, which

describe the first-ever discovery of stress granules in the neurons of a person with MS has put Saskatchewan on the international “MS Map” and will potentially lead to new therapies for people with progressive MS (the type of MS that causes the greatest degree of disability).

Dr. Rajput presented four abstracts accepted at the XXIV World Congress on Parkinson’s Disease and Related Disorders meeting in Montreal in June 2019. One was a poster walk-through (one of twelve selected) and another was one of nine cases chosen by the selection committee for presentation at the ‘Grand Parade of Videos’ (several hundred people in attendance). Also an invited panelist for ‘Nuclear Insights: New Research, New Opportunities’ hosted by Fedoruk Centre and Johnson Shoyama Centre for the Study of Science and Innovation Policy (December 2018), and invited keynote speaker at the annual MMN (Manitoba Neuroscience Network) meeting in Winnipeg (June 2019).

PLANS FOR YEAR AHEAD

The Division of Neurology welcomes **Dr. Omar De Rita**, a graduate of our residency program, who will start practice as a community-based neurologist in Saskatoon in October 2019.

Continuing Medical Education at the University of Saskatchewan has arranged The Heart Disease and Stroke Conference for November 16-17, 2019 at the Health Sciences building on campus. **Dr. Graham** will be chairing the meeting and both he and **Dr. Hunter** will be presenting. The itinerary is listed at https://cmelearning.usask.ca/current-courses/Heart_Stroke_2019.php

PARTICULARLY NOTEWORTHY PUBLICATIONS

A Carter, A Denton, LD Ladino, I Hassan, T Sawchuk, T Snyder, M Vrbancic, M Reuber, R Huntsman, **J Tellez-Zenteno**; PNES Canada Group. (2018). Experience of psychogenic nonepileptic seizures in the Canadian league against epilepsy: A survey describing current practices by neurologists and epileptologists. *Seizure*, 61, 227-233.

L Hernández-Ronquillo, L Thorpe, P Pahwa, **JF Téllez-Zenteno**. (2018). Secular trends and population differences in the incidence of epilepsy. A population-based study from Saskatchewan, Canada. *Seizure*, 60, 8-15.

CW Huang, S Brown, N Pillay, MD Campo, **J Tellez-Zenteno**, RS McLachlan. (2018). Electroencephalographic and Electrocardiographic Effect of Intravenous Lacosamide in Refractory Focal Epilepsy. *J Clinical Neurophysiol*. 35(5):365-369.

O Robertson, **A Kirk**, C Karunanyake, D Morgan, M O'Connell. (2019). Women and Men Presenting to a Rural and Remote Memory Clinic in Saskatchewan, Canada Show Similar Cognitive Findings for Dementia. *Alzheimer disease and associated disorders*.

H Salapa, C Johnson, C Hutchinson, B Popescu, **M Levin**. (2018). *Dysfunctional RNA binding proteins and stress granules in Multiple Sclerosis*. Journal of Neuroimmunology. 324.

V Hodgkinson, J Lounsberry, A Mirian, A Genge, T Benstead, H Briemberg, I Grant, W Hader, W Johnston, S Kalra, G Linassi, R Massie, M Melanson, C O'Connell, **K Schellenberg**, C Shoesmith, S Taylor, S Worley, L Zinman, L Korngut. (2018). Provincial Differences in the Diagnosis and Care of Amyotrophic Lateral Sclerosis. *Canadian Journal of Neurological Sciences* 45 (6), 652-659.

M Grimm, G Respondek, M Stamelou, T Arzberger, L Ferguson, E Gelpi, A Giese, M Grossman, D Irwin, A Pantelyat, **A Rajput**, S Roeber, J van Swieten, C Troakes, A Antonini, K Bhatia, C Colosimo, T van Eimeren, J Kassubek, J Levin, W Meissner, C Nilsson, W Oertel, I Piot, W Poewe, G Wenning, A Boxer, L Golbe, K Josephs, I Litvan, H Morris, J Whitwell, Y Compta, J Corvol, A Lang, J Rowe, G Höglinger ; Movement Disorder Society-endorsed PSP Study Group. (2019) How to apply the movement disorder society criteria for diagnosis of progressive supranuclear palsy. *Movement Disorders*.

PARTICULARLY NOTEWORTHY GRANTS / CONTRACTS

K Schellenberg - Co-Investigator ALS Association Grant (PI – Dr. R Douville, University of Winnipeg). Integrase Inhibitors as a therapeutic modality in ALS. Awarded 2018. Amount - \$300,000

M Levin (PI). SHRF (Saskatchewan Health Research Foundation) Establishment Grant, Winter 2018. Amount - \$120,000

M O'Connell, M Rapoport, A Cammer, L McWilliams, P Hunter, **A Kirk**, D Morgan, V Dal Bello-Haas, T Hadjistavropoulos, I Panyivan. RAIIN – Remote Assessment and Interprofessional Intervention with Neuropsychology – Remote Treatment of Sleep Disturbance for Persons with Dementia and their Caregivers. Amount \$50,000. 2019-2020. Saskatchewan Health Research Foundation (SHRF) Collaborative Innovative Development (CID) grant

RESPIROLOGY, CRITICAL CARE AND SLEEP MEDICINE

Division Head: **Dr. Robert Skomro**

Faculty: 22

- Clinicians: 16
- Scientists (non-MDs): 6

- Full Professor: 7
- Associate Professor: 2
- Assistant Professor: 11
- Emeritus Professor: 2



DR. ROBERT SKOMRO

PUBLICATIONS

Peer-reviewed Publications:	51
Books, Chapter, Expository and Review Articles:	2
Conference Papers or Abstracts:	24
Invited Lectures / Conference Presentations (external)	53

RECRUITMENT

Our Respirology Training Program successfully recruited two trainees, **Dr. Jeffery Marciniuk** and **Dr. Pierre Landry** will start in July 2019.

The Division anticipates recruiting two faculty members in the summer and fall of 2020.

CLINICAL CARE

The Division of Respirology, Critical Care and Sleep Medicine provides tertiary Adult Respirology care for Saskatchewan patients. The Division houses a number of unique clinical programs including Adult Cystic Fibrosis, Pulmonary Hypertension, Lung Transplantation, Severe COPD, Sleep Disordered Breathing, Interventional Respirology and Interstitial Lung Disease.

There has been significant growth in clinical volume in all of these portfolios.

The Division has recently collaborated with the Division of Neurology in creation of ALS/Neuromuscular -Respirology Clinics, a unique service in our province; similar partnership has been developed with the Divisions of Cardiology and Neurology in creation of joint clinics to support patients with myopathy. There is ongoing collaboration with Prince Albert Health Co-op Centre which has resulted in improvement in access to respiratory consultations in Northern Saskatchewan.

Following the successful recruitment of **Dr. Veronica Marcoux**, we have established the only Interstitial Lung Disease Clinic in Saskatchewan supporting ILD patients from the entire province. Dr. Marcoux has developed collaboration with Division of Rheumatology to establish joint Respirology/Rheumatology ILD clinics.

EDUCATION

The Division has a fully accredited Respiriology Training Program recognized for its excellence at a national level. Recent graduates from our program have achieved 100% success rate at the Royal College of Physicians and Surgeons of Canada examination and two new residency positions have been filled in 2019. The program, chaired by **Dr. Mark Fenton**, is currently transitioning into a competence by design curriculum to be launched on July 2020.

LEADERSHIP ROLES

The Division is recognized at a national and international level for its academic excellence. Many members have leadership positions in American College of Chest Physicians, American Thoracic Society, Canadian Thoracic Society, Canadian Sleep Society, Royal College of Physicians and Surgeons of Canada and CIHR.

Many members of the Division also play an active leadership role in supporting activities of the Respiratory Research Center. In the fall of each year the Division hosts an annual Respiriology summit and in May co-hosts a Provincial Inspired Breathing Respiratory Conference.

The members of our Division are continuing to support the academic mission of the University of Saskatchewan, and College of Medicine as well as provide leadership for a number of unique provincial programs for Sask. Health Authority:

- **Dr. Darcy Marciniuk** – Associate VP Research, University of Sask.
- **Dr. Donna Goodridge** – Director of Respiratory Research Center

- **Dr. Chung-Chun (Anderson) Tyan** – Respiratory Module Lead UGME
- **Dr. Karen Laframboise** – Program Director Internal Medicine Residency Training Program, Medical Director Pulmonary Hypertension Program
- **Dr. Fenton** – Program Director – Adult Respiriology Residency Training Program, Chair of the Endoscopy Committee, Medical Director Sleep Disorders Center, Medical Director Lung Transplantation Program, Chair of Medical Advisory Board, Lung Association of Sask.
- **Dr. Julian Tam** – Medical Director, Adult Cystic Fibrosis Program, Assistant Program Director for Research - IM Residency Training Program.
- **Dr. Skomro**, Div. Chair, Co-Chair Provincial Respiratory Council, Chair Canadian Sleep and Circadian Rhythm KM Committee.

Members of the Division play an active role in supporting the activities of the Respiratory Research Center – a very successful Research Initiative for our COM and DOM.

DISTINCTIONS AND HIGHLIGHTS OF PAST YEAR

Dr. Fenton received the Heather Crowe Award, 2018 from the Canadian Lung Association. He was awarded the Distinguished CHEST Educator 2018 by the American College of Chest Physicians and he received the Best Ideas That Inspire Grant, Saskatchewan Health Research Foundation Sante Awards 2018.

Dr. Fenton was invited by Research Canada to present research on Indigenous Respiratory Health to the Parliamentary Health Research Caucus at the House of Parliament in October 2018
<https://rc-rc.ca/parliamentary-health-research-caucus-reception-to-highlight-northern-and-rural-health-research-in-canada/>

Dr. John Gordon was appointed to the Institute Advisory Board for the CIHR Institute of Infection and Immunity (III) in 2018. He was also elected to a three year term to Executive Council, Collegium Internationale Allergologicum (<http://www.ciaweb.org/>) an international clinical allergy research society with a global membership cap of 250 members. (2018 – 2021)

Dr. Brian Graham was appointed chair of the joint American Thoracic Society and European Respiratory Society taskforce to update the technical statement on standards for spirometry.

Dr. Vernon Hoepfner received Senior Life Designation from the College of Physicians and Surgeons, Saskatchewan. December, 2018.

Dr. D. Marciniuk was awarded one of only two Presidential Citation Awards from the American College of Chest Physicians for

exemplary dedication, commitment and expertise. October, 2018.

Dr. Skomro received the Dept. of Medicine Best Administrator Award.

Dr. Fenton was appointed Vice Chair of the Scientific Program and Awards Committee for the ACCP.

PLANS FOR NEXT YEAR

The Division has plans for establishing a Royal College of Physicians and Surgeons of Canada accredited Area of Focused Competence (AFC) Sleep Disorder Medicine Training Program in 2020, allowing our postgraduate trainees to achieve additional competency in Sleep Medicine.

The Division will recruit additional staff to support growth in ILD and Sleep Medicine portfolios.

Our Adult Respiratory Training Program will implement CBD in accordance with national and provincial policies.

The Division will continue its excellent research program, collaborating with local (via RRC), national and international colleagues.

The Division will host its annual summit in the fall of 2019 and Inspired Breathing Provincial Conference in May 2020.

NOTEWORTHY PUBLICATIONS

D Cockcroft, B Davis, C Blais. (2019). Direct bronchoprovocation test methods: history 1945-2018. *Expert Review of Respiratory Medicine*. 2019.Mar;13(3):279-289

D Cockcroft, G Ford GT. (2019). *Obesity and airway hyperresponsiveness*. Canadian Journal of Respiratory, Critical Care, and Sleep Medicine. 2019;3(2):112-116

T Hallstrand, J Leuppi, G Joos, G Hall, K Carlsen, D Kaminsky, A Coates, **D Cockcroft**, B Culver, Z Diamant, G Gauvreau, I Horvath, F de Jongh, B Laube, P Sterk, J Wanger. (2018). ERS technical standard on bronchial challenge testing: pathophysiology and methodology of indirect airway challenge testing. *European Respiratory Journal*, 52(5), 1801033.

C Blais, **B Davis**, **D Cockcroft**. (2019). Within-tester repeatability and between-tester reproducibility of skin test endpoint titration: A quality assurance study. *Annals of Allergy, Asthma & Immunology*. 2019; 122 (2):220-223.

M Fenton, **B Graham**, S Stanojevic, L Whitford, L Ironstand. (2018). Interpretation of spirometry in saskatchewan first nations adults. *Annals of the American Thoracic Society*, 15(10), 1237-1239.

B Graham, N MacIntyre, Y Huang. (2018). Gas Exchange. *Pulmonary Function Testing*, 77-101.

Goodridge D, Bandara T, **Marciniuk D**, Hutchinson S, Crossman L, Kachur B, Higgins D, Bennett A. (2019). Promoting chronic disease management in persons with socially complex needs: a qualitative descriptive study. *Chronic Respiratory Disease*. (7) 16:1-9.

D. Lougheed, A. Taite, J ten Hove, A. van Dam, F. Ducharme, M. Ferrone, A. Gershon, **D. Goodridge**, **B. Graham**, S. Gupta, C. Licksai, A. MacPherson, G. Styling, I. Tamari, To T. (2018). Pan-Canadian Asthma and COPD Standards for Electronic Health Records: Expert Working Group Report. *Canadian Journal of Respiratory, Critical Care and Sleep Medicine*. 2(4):244-250.

J Brown, L Thorpe, **D Goodridge**. (2018). Completion of Medical Certificates of Death after an Assisted Death: An Environmental Scan of Practices. *Healthcare policy= Politiques de sante*, 14(2), 59-67.

B Lins, J Hurtubise, A Roebuck, W Marks, N Zabder, G Scott, Q. Greba, W. Dawicki, X. Zhang, C Rudulier, **J Gordon**, J Howland. (2018). Prospective analysis of the effects of maternal immune activation on rat cytokines during pregnancy and behavior of the male offspring relevant to schizophrenia. *eNeuroscience*, 5(4).

W Walana, J Wang, I Yabasin, M Ntim, S Kampo, M Al-Azab, A Elkhider, E Dogkotenge Kuugbee, J-W Cheng, **J Gordon**, F Li. (2018). IL-8 analogue CXCL8 (3-72) K11R/G31P, modulates LPS-induced inflammation via AKT1-NF- κ B and ERK1/2-AP-1 pathways in THP-1 monocytes. *Human immunology*, 79(11), 809-816.

J Wang, W Walana, B Wang, J Wei, X Lu, J-W Cheng, **J Gordon**, J Li, F Li. (2018). Cytotoxic effect of interleukin-8 in retinal ganglion cells and its possible mechanisms. *International journal of ophthalmology*, 11(8), 1277.

W Walana, Y Ye, M Li, J Wang; B Yang, J-W Cheng, **J Gordon** and F Li. (2018). IL-8 antagonist, CXCL8 (3-

72) K11R/G31P coupled with probiotic exhibit variably enhanced therapeutic potential in ameliorating ulcerative colitis. *Biomedicine & Pharmacotherapy*, 103, 253-261.

Y Ye, Y Zhang, B Wang, W Walana, J Wei, **J Gordon** and F Li. (2018). CXCR1/CXCR2 antagonist G31P inhibits nephritis in a mouse model of uric acid nephropathy. *Biomedicine & Pharmacotherapy*, 107, 1142-1150.

D Menzies, M Adjobimey, R Ruslami, A Trajman, O Sow, H Kim, J Baah, G Marks, R Long, **V Hoepfner**, K Elwood, H Al-Jahdali, M Gninafon, L Apriani, R Koesoemadinata, A Kritski, V Rolla, B Bah, A Camara, I Boakye, V Cook, H Goldberg, C Valiquette, K Hornby, M-J Dion, P-Z Li, P Hill, K Schwartzman, A Benedetti. (2018). Four months of rifampin or nine months of isoniazid for latent tuberculosis in adults. *New England Journal of Medicine*, 379(5), 440-453.

Stringer W, **Marciniuk D**. (2018) The Role of Cardiopulmonary Exercise Testing (CPET) in Pulmonary Rehabilitation (PR) of Chronic Obstructive Pulmonary Disease (COPD) Patients. *COPD* 15(6):621-631.

V. Marcoux, Wang M, Burgoyne SJ, Fell CD, Ryerson CJ, Sajobi TT and Johannson KA. (2019) Mobile Health Monitoring in Patients with Idiopathic Pulmonary Fibrosis. *Ann Am Thorac Soc*. June 26

C Plishka, T Rotter, **E Penz**, M Hansia, S Fraser, **D Marciniuk**. (2019) Effects of clinical pathways for chronic obstructive pulmonary disease (COPD) on patient, professional and systems outcomes: A systematic review. *CHEST* ; Epub ahead of print May 28. pii:S0012-3692(19)31120-1.

R Luengo-Fernandez, **E Penz**, M Dobson, I Psallidas, AJ Nunn. (2019). *Cost-effectiveness of intrapleural use of tissue plasminogen activator and DNase in pleural infection: Evidence from the MIST2 randomised controlled trial*. *European Respiratory Journal*, 1801550;

D Altman, L Barnieh, B Manns, **E Penz**. 2019. *Cost-effectiveness of universally funding smoking cessation pharmacotherapy*. *Canadian Journal of Respiratory, Critical Care, and Sleep Medicine* 3 (2), 67-75.

B Peres, A Allen, N Fox, I Laher, P Hanly, **R Skomro**, F Almeida, N Ayas; Canadian Sleep and Circadian Network. (2018). Circulating biomarkers to identify cardiometabolic complications in patients with Obstructive Sleep Apnea: A systematic review. *Sleep medicine reviews*. 44:48-57

NOTEWORTHY GRANTS

D Cockcroft (Principal Investigator). *AllerGen-NCE industry collaboration, Inhaled anti-TSLP and allergen challenge*, Novartis. Total: \$100,000 for 2018 to 2019

D Cockcroft (Principal Investigator). *AllerGen-NCE industry collaboration, Benralizumab (anti-IL5R) and allergen challenge*, AstraZeneca. Total: \$94,000 for 2018 to 2019

D Cockcroft (Principal Investigator). AllerGen NCE (tri-council), Strategic Initiative 18CIC_SI_C9, *Inhaled allergen challenge methodology: assessment of a vibrating mesh nebuliser for allergen administration*, AllerGen. Total: \$50,000 for 2018 to 2019

J Dosman; M King; P Pahwa; S Abonyi (Principal Investigators) **M Fenton**, C Karunanayake; D Rennie; J Lawson, **N Koehnke**; **R Skomro**; S Kirychuk; (Co-investigators). *Assess, Redress, Re-assess: Addressing Disparities in Sleep Health among First Nations People*. Canadian Institutes of Health Research (CIHR). Project Grant Total Funding - \$1,250,775

M Fenton (Principle Investigator) J Carmalt; J Ianowski; **J Tam** (Co-investigators) *Synchrotron imaging to characterize chronic allograft rejection in a swine orthotopic lung transplantation model*. Saskatchewan Health Research Foundation (The) (SHRF) Ideas that inspire Total Funding - \$25,000

V Hoepfner (Co-investigator)(Saskatchewan site PI) W Wobeser, (Principle Investigator) CIHR funded 2017-20. *Recurrent tuberculosis in Canada – translating whole genome sequence insights into best public health practice*. \$401,000 over three years.

Development Proposal: Indigenous Peoples' Health Research Centre. Co-Investigator – **D Marciniuk** (Principal Investigators – C LaVallie, JL Sasakamoose, N Starblanket, C Tait). *Canadian Institutes of Health Research (CIHR) Network Environments for Indigenous Health Research (NEIHR) Operating Grant, October 2018 to September 2019, \$75,000*.

J Gordon (Principal Investigator) (for the Cardiopulmonary Research Cluster). *OVDR, College of Medicine Research Cluster Funding. \$34,000 2019-20*.

D Goodridge (Principal Investigator), N Osgood, J Stempien, D Harder (Co-investigators). *Health Literacy: Reducing Inequities and Improving Outcomes for Clients of the Mental Health Assessment Unit, Royal University Hospital Foundation*. Total: \$24,271 for 2019-04-19 to 2021-04-19

D Goodridge (Principal Investigator), N Osgood, (Coprincipal Investigator), **A Cammer** (Co-investigator), M Bracken J (Collaborators). *Improving Access to Support: Development and Evaluation of a Novel App for Family Caregivers of People with Dementia, SHRF CID*. Total: \$49,066 for 2019-03-01 to 2020-02-28

R Skomro. Bleomycin-induced pulmonary fibrosis. *SHRF 2018-2020*. \$25,000.

R Skomro. Mobilizing the healthcare community towards an integrated approach to improving outcomes of patients with sleep disorders. CIHR. 2016-2020. \$ 50,000.

RHEUMATOLOGY

SASKATOON

Division Head: **Dr. Regina Taylor-Gjevre**

Faculty: 10 Clinicians

(adult rheumatologists)

- Full Professor: 2
- Clinical Professor: 1
- Assistant Professor: 7

REGINA

Division Head: **Dr. Ardyth Milne**

Faculty: 3 Clinicians

(adult rheumatologists)

- Clinical Professor: 1
- Assistant Professor: 2



DR. REGINA TAYLOR-GJEVRE

PATIENT CARE

Rheumatology consultation service for inpatients and telephone advice through Acute Care Access Line (ACAL) is covered throughout the year. Eight of the ten Saskatoon rheumatologists participate in this call schedule as do all of the Regina rheumatologists.

Several members of the division are working closely with other disciplines;

Dr. Jodie Reis works with a combined GI/Rheumatology clinic for patients with inflammatory bowel disease.

Dr. Keltie Anderson worked with a combined Respiratory/Rheumatology clinic for patients with interstitial lung disease.

Dr. Reis and **Dr. Wojciech Olszynski** are involved in a fracture clinic.

Dr. Tun Nyo is providing welcome expertise to the division with ultrasound of joints and of temporal artery examination.



DR. ARDYTH MILNE

RESEARCH

Dr. Bindu Nair and **Dr. Taylor-Gjevre** have published a Saskatchewan epidemiologic study *Incidence and prevalence of rheumatoid arthritis in Saskatchewan, Canada: 2001-2014* in BMC Rheumatology.

Several division members continue to be involved in clinical trials.

Dr. Regan Arendse is a collaborator with the BioTrac registry study.

Several division members have presented, or had students present abstracts at national and international meetings in this last year.

EDUCATION

Dr. Anderson has taken over as the post-graduate program director for the rheumatology program this year. The rheumatology subspecialty training program provides educational opportunities for trainees in both Regina and Saskatoon sites.

PGY4: 2

PGY5: 2

Additionally, division rheumatologists host rotating residents from various core programs for clinics and hospital based consult service experiences. Senior medical students also participate in clinics with division faculty members.

REGINA DIVISIONAL REPORTS

REGINA AREA

This has been a year of successful change for the Department of Medicine in Regina as we continue to transition into one provincial health district with one shared vision. The department is supporting initiatives to improve quality and patient care delivery while also achieving success in academic pursuits including teaching and research.

I would like to once again extend a warm welcome to all the new faces in the department. Recruitment has been a priority and this was a very successful year. Eight new department members joined our team in 2018. Recruitment of additional faculty will remain a priority in the year ahead.

EDUCATION

The internal medicine postgraduate teaching program has increased its numbers of geographical residents to five this year. **Dr. Jacqueline Kraushaar** continues to support the undergraduate teaching program in her role.

PATIENT CARE AND QUALITY IMPROVEMENTS

We have a robust young faculty who are participating in redesigning programs to improve flow and patient care.

Dr. Stephen Lee, Dr. Kevin Hamming and **Dr. Dorothy Thomas** are working to improve infectious disease, diabetic and kidney health centre designs.

Dr. Marc Reeson and **Dr. Tom Perron** have improved work flow in team based collaborative care models at the preoperative and consult medicine.



DR. BONNIE RICHARDSON

We have had strong clinical work with a focus on quality improvement. For example **Dr. Sanchit Bhasin, Dr. Michael O'Byrne** and **Dr. Christian Ruedo-Clausen** are working to improve quality and standardization in gastroenterology invasive procedures.

Improving quality and standardization of process will continue to be a priority for the year ahead as we work together to create a transparent, quality culture.

LEADERSHIP AND RESEARCH

Cardiology continues to be recognized for the strength of its research and the leadership of its members. **Dr. Rodney Zimmerman, Dr. Andrea Lavoie, Dr. Colin Yeung** and **Dr. Payam Dehghani** are all serving on national, international, Royal College and guideline committees. Research and publication is robust. Cardiology continues to have a strong interventional, TAVI and electrophysiology program.

COMMUNITY WORK

Many of the divisions have been supporting work in communities. Work is being done to create pathways and support service delivery in their local community networks. One such pathway is supporting diabetic care in the community and moving it out of the tertiary environment.

We also have a strong indigenous health team. Many members work with indigenous health from a community perspective to improve care and break down barriers. This work is being recognized nationally and internationally.

THANK YOU

As a new leader who has much to learn, I can say I am very proud of the incredible work being carried out by our department members. I look forward to working with you all to improve the care of patients, program delivery and wellness of our physicians in the year ahead.

BONNIE RICHARDSON, MD, FRCPC

AREA LEAD - REGINA

DEPARTMENT OF MEDICINE

CARDIOLOGY – REGINA

Division Head: **Dr. Rodney Zimmerman**

Faculty: 12 Clinicians

- Clinical Professor: 3
- Associate Professor: 1
- Clinical Associate Professor: 1
- Assistant Professor: 7

NOTABLE RESEARCH

Dr. Payam Deghani and Dr. Andrea Lavoie had several publications in the Canadian Journal of Cardiology and other peer-reviewed manuscripts.

Dr. Jeffrey Booker is continuing his work in structural cardiology.

Dr. Dakshina Murphy - Wait Times from Cardiovascular Procedures and the Effects on Patient Health Outcomes – Grant application submitted to CIHR.

Dr. Omar Sultan – Recent research publications:

Prevention of Arrhythmia Device Infection Trial: The PADIT Trial (Co-author) JACC, Vol. 72, 24, 18 December 2018, Pages 3098-3109.

Challenge and Impact of Quinidine Access in Sudden Death Syndromes: A National Experience (Co-author) JACC Clin. Electrophysiology, vol 5,3, March 2019, Pages 376-382.

HONOURS AND AWARDS

Dr. Colin Yeung

- 2018 - AACVPR (American Association of Cardiovascular and Pulmonary Rehabilitation) Early Career International Scholarship



DR. RODNEY ZIMMERMAN

LEADERSHIP ROLES

Dr. Zimmerman

- Canadian Cardiovascular Society Treasurer and Executive Committee; Royal College Cardiology Examiner
- Member of both the Royal College Cardiology Specialty Committee and AFC in Interventional Cardiology Committee; Member of the Royal College Committee of Specialties

Dr. Murphy

- College of Physicians and Surgeons of Saskatchewan - Advisory Committee on Medical Imaging
- Canadian Cardiovascular Society – Continuing Professional Development Committee

Dr. Yeung

- Executive board of the ICCPR (International Council of Cardiovascular Prevention and Rehabilitation)
- National Young Ambassador (representing Canada) in the European Association of Preventive Cardiology, under the European Society of Cardiology
- Cardiology Board of Directors for the CACPR (Canadian Association of Cardiovascular Prevention and Rehabilitation) and also sits on the CACPR Research Committee



Dr. Colin Yeung and Dr. Alyssa Shariff



Dr. Wladyslaw Wojcik



Dr. Andrea Lavoie and Dr. John Tsang



Dr. Omar Sultan

DERMATOLOGY – REGINA

Division Head: **Dr. Karen Holfeld**

Faculty: 6 Clinicians

- Clinical Professor: 1
- Clinical Associate Professor: 1
- Assistant Professor: 4

RECRUITMENT

Welcome to two new physicians who joined the team during this academic year:

Dr. Irina Oroz joined the division on July 1, 2018.

Dr. Mariam Abbas joined the Dermatology division on December 1, 2018. A recent dermatology graduate from the University of Alberta, she completed her medical degree at the University of Saskatchewan. Dr. Abbas has published extensively in the area of contact dermatitis. She has been recognized with numerous awards for her research and her work advocating for dermatology awareness.

NOTABLE RESEARCH

Dr. Rachel Asiniwasis, together with **Dr. Abbas** and **Dr. Holfeld** are running a Canadian trial site in a phase 3 randomized, double blind and placebo controlled multi-center study investigating the efficacy and safety of a new JAK 1 inhibitor and dupilumab in comparison with placebo in adult subjects for moderate to severe atopic dermatitis.

ENDOCRINOLOGY – REGINA

Division Head: **Dr. Jeremy FitzGerald**

Faculty: 3 Clinicians

- Clinical Associate Professor: 2
- Assistant Professor: 1

RECRUITMENT

Dr. Kevin Hamming will join the division in July 2019

RETIREMENT

Dr. Suba Mann is retiring in October, 2019.

DIVISION GOALS FOR PAST YEAR

1. Continue to advocate for in-hospital insulin use safety through the continued promotion of our Insulin Preprinted Order Set (PPO-455).
2. Continue to provide high quality and timely Endocrinology subspecialist patient care in both the inpatient and outpatient setting.
3. Encourage all division members to become and/or remain actively involved in medical school education/teaching in both the undergraduate as well as postgraduate setting to ensure the necessary endocrinology knowledge and skills are successfully conveyed to these future physicians.
4. Be successful in our ongoing efforts to recruit additional Endocrinologists to ensure that sufficient resources are available to provide more timely access to Endocrinology subspecialist care as we address the province's diabetes epidemic.



DR. JEREMY FITZGERALD

DIVISION ACCOMPLISHMENTS

Dr. FitzGerald played a prominent role in the collaborative development of three additional Preprinted Order Sets (PPOs). The use of standardized order sets will reduce the risk of medication errors and improve diabetes care for patients living in the Regina Area.

May 2019 - Quality improvement initiative – Co-developer with Division of Cardiology – Insulin Preprinted Orders prior to Transesophageal Echocardiogram (TEE) for both the Inpatient and Outpatient Setting (PPO-135)

February 2019 - Quality improvement initiative – Co-developer with Dr. Kish Lyster and Department of Pharmacy - Intermediate Care Insulin Orders Adult (Not for DKA) for Diabetic Patients Requiring Intensive Insulin Management Outside of an Acute Care Unit

January 2019 - Quality improvement initiative – Co-developer with Dr. Jeffrey Betcher ICU - Insulin Preprinted Orders for Cardiac Surgery Post-Operative Transition of IV Insulin to Subcutaneous Insulin (for use in SICU) (PPO-655)

Dr. FitzGerald also played a valuable leadership role in the successful development of the Diabetes Community Pathway - Targeting Optimal Diabetes Education and Resource Allocation for Diabetic Patients Living in Southern Saskatchewan, to improve outpatient diabetes care for adult patients living with Type 2 Diabetes Mellitus.

GOALS FOR UPCOMING YEAR

1. Recruit additional Endocrinologist(s) to ensure patients have more timely access to Endocrinology subspecialist care.
2. Increased involvement in medical school undergraduate and postgraduate education/teaching activities.
3. Explore future research opportunities and quality improvement initiatives once we have successfully recruited additional specialists.
4. Work on Diabetic redesign.

GASTROENTEROLOGY – REGINA

Division Head: **Dr. George Chami**

Faculty: 6 Clinicians

- Clinical Professor: 1
- Clinical Associate Professor: 1
- Assistant Professor: 4

Recruitment

Dr. Christian Rueda-Clausen was welcomed into the group in July 2018.



DR. GEORGE CHAMI

NOTABLE ACTIVITIES

Division Head, **Dr. Chami**, who is skilled in Endoscopic Retrograde Cholangio-Pancreatography (ERCP) procedures, has been busy travelling throughout the province as one of the Direct Observation of Procedural Skills (DOPS) Assessors, aiding with maintaining a high level of quality in endoscopy through the colon cancer screening program initiative.

Dr. Michael O'Byrne, has facilitated the acquisition of new ERCP technology, and is also securing training in Endoscopic Mucosal Dissection.

Dr. Rueda-Clausen is working on the endoscopic management of obesity. He is faculty at Obesity Canada and a member of the writing committee of the Canadian Obesity Guidelines for 2010.

QUALITY IMPROVEMENT

Quality improvement initiatives include upgrading all the esophageal motility and Ph impedance equipment and conforming the motility equipment to maintain a high standard for these evaluations.

Work is on-going to update the urea breath test unit to standardize and improve quality in hydrogen and methane breath testing required for assessing disaccharides deficiencies and small intestinal bacterial overgrowth.

Dr. Sanchit Bhasin
and
Dr. Chris Rueda-Clausen



GENERAL INTERNAL MEDICINE – REGINA

Division Head: **Dr. Jarol Boan**

Faculty: 17 Clinicians

(11 General Internists and 6
Associated Sub-specialists)

- Clinical Associate Professor: 3
- Assistant Professor: 14

The Division of General Internal Medicine is a robust group of General Internists who work on a fee-for-service basis providing teaching, research, and clinical care in the tertiary referral centres in Regina. We cover the population in the southern half of Saskatchewan, with a capture area of 500,000 people. We interact with general practitioners in rural and urban southern Saskatchewan and manage the complex internal medicine patients.

Dr. Jarol Boan was appointed as Interim Lead for the General Internal Medicine Division in Regina in November, 2018. Her focus on quality improvement, research and recruitment has provided direction to the Division. The DGIM physician leadership has focused on improved delivery of clinical programs.

QUALITY CARE

Out-Patient Clinical Care and Hospital Coverage

- pro-operative consult service
- 2 hospital-based GIM consultants
- General internal medicine ward

All members of the Dept. rotate through all the clinical services for Internal Medicine.



DR. JAROL BOAN

RECRUITMENT

Welcome to three new faculty members who joined our team in 2018/19:

- **Dr. Sheila Parai** (July 2018)
- **Dr. Marc Reeson** (Oct 2018)
- **Dr. Abimboye Moyosore** (Dec 2018)

Recruitment to Regina is a priority for the division, and through time-consuming work, has proven successful. Two new internists with 10 years of clinical experience in England will be joining the Division in 2020.

Recruitment efforts are ongoing and it is expected that several new internists will be joining our division in the near future.

EDUCATION

There are currently 17 trainees in PGY1 – PGY3

“Our program is known for an exemplary pass rate with the Royal College of Physicians and Surgeons examination in certification as specialists in Internal Medicine. This is a tribute to the quality of the academic teaching in Regina.”

Dr. E Gibbings – Assistant Program Director and Head of Clinical Teaching Unit (CTU) at Regina General Hospital.

QUALITY IMPROVEMENT PROJECTS

1. Bone Protection Pathway
Lead physician: **Dr. Moyo Abimboye**
Developing a pathway to provide adequate calcium and Vitamin D supplementation for high risk patients on the Orthopaedics Ward.
2. Standardized pre-op testing and evaluation
Lead Physician **Dr. Marc Reeson**
Developing a standardized, cost-efficient approach to pre-op consultations.
3. Appropriate treatment for diabetes in Indigenous Health
Lead physicians **Dr. Boan** and **Dr. Tom Perron**
Developing a diabetes pathway for First Nations access to appropriate treatment of diabetes.

SELECT PUBLICATIONS

A Rankin, L Broche, R James, B Kennedy, C MacEachern, **H Rehman**, P Myint, D Lurie, G Ashcroft. (2018). Fast-field cycling magnetic resonance imaging – developing a new biomarker for early osteoarthritis of the knee. *Osteoarthritis and Cartilage*. 26. S467.

M Reeson, A Forster, C van Walraven. (2018). Incidence and trends of central line associated pneumothorax using radiograph report text search versus administrative database codes. *BMJ Quality & Safety* 27(12), 982-988.

M Reeson, K Kyeremanteng, G D'Egidio. "Defibrillator Design and Usability May Be Impeding Timely Defibrillation." *The Joint Commission Journal on Quality and Patient Safety* 44.9 (2018): 536-544

D Thomas, A Huang, M McCarron, J Kappel, R Holden, K Yeates and **B Richardson**. (2018). A Retrospective Study of Chronic Kidney Disease Burden in Saskatchewan's First Nations People. *Canadian journal of kidney health and disease* 5, 2054358118799689.

INFECTIOUS DISEASES – REGINA

Division Head: Vacant
Faculty: 4 Clinicians

- Assistant Professor: 4

RECRUITMENT

Dr. Stephen Lee will be joining the division full time in July 2019.

QUALITY CARE

The Infectious Diseases Division in Regina has been a leader in development and implementation of treatment for communicable diseases such as HIV and Hepatitis.

Along with teaching, education and research, division members provide on call clinical services as well as outpatient clinics.

NOTABLE RESEARCH

Dr. Stuart Skinner continues to expand and grow community based and Indigenous led research in First Nations in Saskatchewan. This research is built around improving care delivery, reducing health disparities and pushing for health care system innovation. Additional information is available in the Indigenous Health section of this report.

Dr. Alexander Wong is well known for his advocacy efforts about HIV/HEP C programs. He was an invited plenary speaker at the 28th Annual Canadian Conference on HIV/AIDS Research in Saskatoon in May 2019, and was the lead presenter and author on an international study describing the efficacy of the single-tablet HIV regimen Delstrigo™ in patients with transmitted resistance to non-nucleoside reverse transcriptase inhibitors. Dr. Wong is also a prolific writer and has an impressive publication record in both peer-reviewed manuscripts and conference abstracts.

"I chose to come to Regina in September of 2011 because I witnessed first-hand the devastating impact of the HIV epidemic on patients and their families, and I saw the opportunity to work with wonderful people and teams dedicated to exceptional patient- and family-centred care. Since then, I have had the opportunity to collaborate and work with cross-functional teams focusing on innovative and impactful work supporting persons affected by all manners of infectious diseases. We have seen some progress on the HIV front locally with improved rates of retention in care and viral suppression and a modest decrease in the number of newly reported HIV cases since 2011 across southern Saskatchewan."



Dr. Alex Wong

NEPHROLOGY – REGINA

Division Head: **Dr. Siva Karunakaran**

Faculty: 6 Clinicians

(4 full-time and 2 part-time)

- Clinical Associate Professor: 3
- Assistant Professor: 3

RECRUITMENT

Dr. Dorothy Thomas joined the division July 1, 2018. Dr. Thomas is a former mechanical engineer and completed her fellowship training at McMaster University following her University of Saskatchewan Internal Medicine Fellowship. She has published one paper this year. She is working on the kidney health flow redesign.

QUALITY CARE

Patients are cared for at both the Pasqua Hospital and Regina General Hospital which has a hemodialysis unit. There are also 6 satellite hemodialysis units throughout southern Saskatchewan.

The nephrologists work in a multidisciplinary Kidney Health Center which serves chronic kidney disease patients, home dialysis patients and chronic kidney stone patients.

QUALITY IMPROVEMENT

Dr. Thomas and **Dr. Mohamed Abdulhadi** are providing leadership in the redesign of the Kidney Health Centre. The goal is to improve service delivery to better meet the needs of patients, resulting in improved outcomes.

LEADERSHIP ACTIVITIES

Along with being Division Head, **Dr. Karunakaran** also serves as past president of the Saskatchewan Medical Association.

Dr. Abdulhadi leads the Kidney Stone Prevention Clinic, which works with close to 150 patients to prevent recurrent kidney stones.

RESEARCH

One of the goals of the renal program is to increase the penetration of home dialysis among the dialysis population. Various efforts are being undertaken to achieve this. **Dr. Bhanu Prasad** is leading a research study to identify the barriers for home dialysis growth across the province.

Dr. Bonnie Richardson received a SHRF grant to identify and overcome barriers for increasing penetrance of home therapies.

Dr. Prasad is also examining the impact of frailty on the Chronic Kidney Disease population, hemodialysis patients and transplant wait list population.

Division members **Dr. Amanda Ellwood** and **Dr. Richardson** are participating in the Clinical Quality Improvement Program (CQIP) to improve medication reconciliation on patient discharges and optimize anemia management in hemodialysis patients respectively.

NOTEWORTHY PUBLICATIONS

D Thomas, A Huang, M McCarron, J Kappel, R Holden, K Yeates and **B Richardson** (2018). *A Retrospective Study of Chronic Kidney Disease Burden in Saskatchewan's First Nations People*. Canadian journal of kidney health and disease, 5, 2054358118799689.

NEUROLOGY – REGINA

Division Head: **Dr. Melad Shawush**

Faculty: 6 Clinicians

- Clinical Associate Professor: 1
- Assistant Professor: 5

RECRUITMENT AND RETIREMENTS

The division has been successful in recruiting one new member who has an interest in stroke who plans on joining the division in the fall of 2019.

There is one expected retirement in the near future.

QUALITY CARE

Team members are actively involved in the Stroke Prevention Clinic at the Regina General Hospital.

There has been a quality improvement project with the goal to decrease the time for treatment for acute stroke in collaboration with rapid response critical care physicians.

Dr. Shawush is the Director of the southern Saskatchewan MS clinic which operates out of the Pasqua Hospital.

FUTURE GOALS

- Recruitment
- Enhancement of stroke and epilepsy services.



DR. MELAD SHAWUSH

RESPIRATORY MEDICINE – REGINA

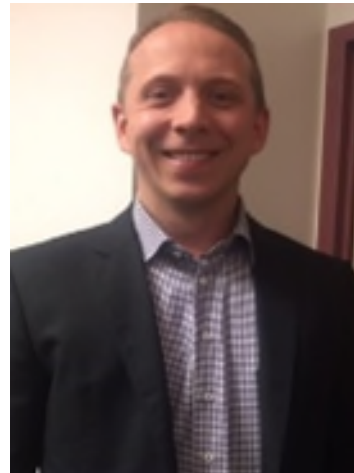
Division Head: **Dr. Zenon Belak**

Division Members: 5 Clinicians

- Clinical Associate Professor: 1
- Assistant Professor: 4

RECRUITMENT

Dr. Kelsey Tallon joined the division in July 2018. Dr. Tallon is a University of Saskatchewan graduate who has a passion for learning and quality. She does interventional respirology. She participates in teaching on the CTU rota.



DR. ZENON BELAK

QUALITY CARE

The division provides a variety of services such as interventional therapy like bronchoscopy and Endobronchial Ultrasound (EBUS).

EDUCATION

The division of Respirology has a strong presence on the CTU. Both Dr. Belak and Dr. Tallon participate on the teaching unit regularly and are fond of teaching respirology procedures to the residents such as chest tube insertion and management as well as thoracentesis. Their teaching feedback is excellent.

NEW INITIATIVES

The division is working at upgrading the cardiopulmonary program with the goal of expanding services to include a pulmonary rehabilitation program.

CRITICAL CARE ASSOCIATES (CCA) – REGINA

Division Head: **Dr. Hennie Van Der Merwe**

Division Members: 25 Family Physicians

QUALITY CARE

The division of Critical Care Associates (CCA) provides 24 hour in-hospital care for patients admitted to critical care units in the Regina General Hospital and Pasqua Hospital. We work collaboratively with intensivists, cardiologists, and nephrologists to participate in multidisciplinary rounds daily in the ICU's, CCU, and dialysis unit respectively.

Our main task is to stabilize, admit, and manage patients in critical care units, and act as the physician lead for the code blue team and massive transfusion situations.

Outside of critical care settings, the Rapid Response CCA provides immediate bedside care to deteriorating and critically ill patients admitted to hospital and coordinates quick and efficient admissions to the critical care units. We are also responsible for the "Safer Hospital at Night" initiative that was spearheaded 2 years ago at the Pasqua Hospital through the creation of the Pasqua Medical Officer. This position has bridged the gap for admitting patients from the emergency room to the ward at night, and currently contributes two thirds of all medicine admissions to the Pasqua Hospital.

NEW INITIATIVES

At a Department of Medicine meeting, the division of neurology expressed concern with the current process of stroke alerts in Regina. **Dr. Van Der Merwe**, division head of CCA's, was quick to respond with "I can solve that problem!" After a summer of discussion,



DR. HENNIE VAN DER MERWE

The CCA division is set to assist with all inpatient stroke alerts by being immediately available at the bedside to administer lifesaving thrombolytic therapy for patients.

EDUCATION

Our division has a commitment to helping residents and medical students gain competence in acute and critical medicine. We offer opportunities for learners to practice airway management, central lines, arterial lines, temporary pacemakers, and other resuscitation skills, in an encouraging and supportive environment.

The CCA's are also heavily involved with CME and practice improvement through various programs. We hold six case study/M&M rounds per year, journal clubs, toxicology rounds, quarterly reviews of the massive transfusion protocol cases, and a syllabus builder (educational rounds with other SHA groups to align practices and protocols).

The division encourages all CCA's to pursue further CME opportunities, and are happy to report that we have had 14 members attend the internationally renowned SMACC critical care conference over the last four years, which has hosted some of the brightest and most progressive keynote speakers in critical care.

We are regularly involved with in-hospital simulations including code blue, organ donation after cardiac death, and massive transfusion simulations. We play an active role in the critical care management committee and contribute to developing and improving the systems in critical care.

RESEARCH

Research in the division of CCA is being led by **Dr. Robin Hughes** with his project on the use of methylene blue to treat Streptococcus Pneumoniae infections. We recognize that there are many more opportunities for research and plan to expand our involvement with future QI projects.

PHYSICAL MEDICINE & REHABILITATION (PM&R) – REGINA

Division Head: **Dr. Jacqueline Kraushaar**

Division Members: 6 Clinicians

We provide inpatient and outpatient rehabilitation services through Wascana Rehabilitation Centre for the southern half of Saskatchewan.

RECRUITMENT

Three of our Physiatrists, **Dr. Amanada Kleisinger**, **Dr. Claire Vayalumkal**, and **Dr. Wendy Chrusch**, expanded our rehabilitation family by bringing new additions to their own families during the past year!

Recruitment continues to be a critical need in our Division to help to meet our strategic goals and continue to further develop robust rehabilitation services in Regina and southern Saskatchewan. The Division has had challenges with recruiting a new Physiatrist to Regina. Our reduced manpower over the past year has unfortunately resulted in accumulating significant waitlists in our outpatient clinics.

QUALITY CARE

The Division of PM&R offers a wide variety of services including inpatient rehabilitation, musculoskeletal (MSK) medicine, pain assessment and management, electrodiagnostics and neuromuscular management, prosthetics and orthotics, pediatric rehabilitation, and spasticity assessment and management. We provide rehabilitation support encompassing the lifespan from pediatric to geriatric populations.



DR. JACQUELINE KRAUSHAAR

NEW INITIATIVES

This past year, **Dr. Kleisinger** joined **Dr. Chrusch** in providing support in the Children's Program at Wascana Rehabilitation Centre with a focus on multidisciplinary pediatric rehabilitation.

Our Division has initiated an outreach clinic in Weyburn with **Dr. Kleisinger** providing electrodiagnostic services. A pilot involving spasticity management for long term care patients has also been initiated at Parkside Extencare in Regina.

With a focus on multidisciplinary care, this past year we established a multidisciplinary Spasticity Clinic with our nursing and occupational therapy colleagues. We also have multidisciplinary clinics for both Prosthetics and Orthotics. We have ambitions for future establishment of a comprehensive multidisciplinary pain management clinic and a neurodegenerative clinic as well.

LEADERSHIP

The Division of PM&R in Regina has been working closely with the Department of PM&R in Saskatoon to develop a comprehensive rehabilitation strategy for the entire province.

Dr. Milo Fink continues to be involved with leadership roles within eHealth and the Saskatchewan Medical Association (SMA).

Dr. Shane Wunder is a member of the SMA Electronic Medical Records (EMR) Co-Management Committee.

EDUCATION

The Division of PM&R is actively involved in undergraduate medical student teaching including lectures, facilitating small group sessions, and clerkship rotations. The number of learners requesting clinical rotations and electives continues to increase each year.

This past year, **Dr. Kleisinger** took on the role of UGME Regina Site Coordinator for PM&R. Each fall, the entire Division participates in two UGME PM&R Skills Days alongside our patients and allied healthcare colleagues. The Skills Days consistently receive positive feedback from our learners.

Dr. Kraushaar is currently the Course Director for Medicine & Society IV, a course focusing on physician leadership roles. In 2018, **Dr. Kraushaar** also took on the role of Year 2 Chair for the College of Medicine.

Dr. Wunder continues as the Program Director for the provincial PM&R residency program.

We currently have a total of 11 residents in our 5-year program. All members of the Regina Division are actively involved in postgraduate medical education.

Our specialty is currently in the process of implementing competency-based medical education and is projected to launch the new curriculum in 2020.

RESEARCH

We continue to be actively involved in clinical research, with a current primary focus on supporting UGME and PGME research projects in PM&R. This past summer, **Dr. Kleisinger** supervised a Summer Student Research Project on “Injury Rates and Types in Amateur Cheerleaders in Saskatchewan” in which her student was awarded a \$1500 Research Grant through the Saskatchewan Academy of Sports Medicine. She is also supervising another second year medical student project, “Saskatchewan Dance Teachers Demographics, Teacher Training and Experience in Injury Prevention”.

Our Division is actively involved in several resident research projects with our Psychiatry residents.

Drs. Wunder and Kraushaar are involved in supervising resident projects in the areas of spasticity management, pediatric hip surveillance and medical education.

QUALITY IMPROVEMENT

The Division of PM&R faculty and residents have incorporated the Patient Safety/Quality Improvement curriculum through Health Quality Council into the resident Academic Half Days with the goal of expanding our Quality Improvement initiatives in PM&R.

We are currently working with our nursing and therapy colleagues on the inpatient rehabilitation unit at Wascana Rehabilitation Centre to continue to improve patient care and rehabilitation services on the unit through development of a Quality Improvement Committee.

SASKATCHEWAN HEALTH AUTHORITY

AREA LEADS

Dr. A Ben-Saleh, NE Area Lead. Prince Albert. Four internists provide internal medicine consults and ICU care for referred patients from Family Physician and ER Physicians. They also provide educational rounds for medical students.

Department members are actively involved with the LiveWell™ with Chronic Conditions program and the fitLife Exercise and Education program.

Goal for next year: Continue lobbying for a Cardiac Function Clinic Support to optimize patients with Class III / IV Congestive Heart Failure.

Dr. Fauzi Ramadan, practices in Moose Jaw and leads the SW area team made up of nine internists.

Dr. Saliu Oloko, practices in Yorkton with one other internist and is the SE area lead.

Dr. Abdul Lookman is the acting area lead for the NW team. He practices in North Battleford.

EDUCATION PROGRAMS

PROGRAM DIRECTORS AND SUPPORT STAFF

PROGRAMS	DIRECTORS	SUPPORT STAFF
Undergraduate Education	Dr. Rahul Mainra	Tenille Shivak Angela Kuffner
Postgraduate Education		
Core Internal Medicine	Dr. Karen Laframboise	Jenny Gates-Debogorski Melissa Pardy Yimika Plumptre Andrea Holtkamp (Regina)
Cardiology Subspecialty	Dr. Kelly Coverett	Sherrise Mareschal Angela Kuffner
General Internal Medicine Subspecialty	Dr. Heather Ward	
Nephrology Subspecialty	Dr. James Barton	
Respirology Subspecialty	Dr. Mark Fenton	
Rheumatology Subspecialty	Dr. Wojciech Olszynski	
Neurology Residency Program	Dr. Gary Hunter	Angela Loehndorf

UNDERGRADUATE MEDICAL EDUCATION

2018 was a successful year for the College of Medicine as it was granted full accreditation for up to eight years. This was an incredible accomplishment and many of our department members played integral roles in this achievement. Years of hard work and dedication has paid off and we are thankful to all those who were involved in this success.

The Department of Medicine continues to play a vital role in undergraduate education within the pre-clerkship and clerkship years.

The start of the 2019 – 2020 academic year will see the piloting of competency-based education within the undergraduate curriculum.

We continue to strive to assist students in mastering concepts within Internal Medicine in order to achieve excellence in their Medical Council of Canada (MCC) exams. To assist them in this goal, we developed a series of webinars and will continue to add more topics.

We will be phasing out the NBME assessment for year 3 clerks. Therefore, all departments are beginning work on an “in-house” exam that will evaluate the medical expertise of our students. This in-house exam will need to be validated to ensure it predicts future success in the MCC, as did the NBME

There are many people within our Department that have key leadership positions within the undergraduate program, and we thank them for their countless hours of dedication.



DR. RAHUL MAINRA
DIRECTOR
UNDERGRADUATE EDUCATION

CORE INTERNAL MEDICINE RESIDENCY PROGRAM

Our biggest accomplishment in the 2018 / 2019 academic year was to be granted full accreditation at the Royal College of Physicians and Surgeons for our Internal Medicine training program in June 2019.

We are now on the regular PGME accreditation cycle at the University of Saskatchewan. This success is due to the many department members who engaged in the improvement process.

Much of the 2018/19 academic year was spent preparing for the Royal College mandated Internal Review and the introduction of the Royal College's Competence By Design (CBD) training curriculum. There were multiple faculty development and training opportunities where we reviewed entrustable professional activities (EPAs), answered questions and gave advice on coaching methods.

Resident input will lead to ongoing improvements within the CBD curriculum, and ongoing faculty development will be one of the priorities for the coming year.



DR. KAREN LAFRAMBOISE
DIRECTOR – CORE INTERNAL MEDICINE
RESIDENCY PROGRAM

ACHIEVEMENT AWARDS

Each spring the Department of Medicine gathers for a special evening of mixing and mingling, with residents and faculty celebrating the successes of the past year.

2018 - 2019 Core Internal Medicine Residents

PGY1



PGY2



PGY3



RESIDENT RESEARCH DAY AWARDS

PGY1 – Case Presentation

1st Place - DWIP PAREKH (pictured)

2nd Place - YASAMAN TORABI

3rd Place - TARA SWAMI (pictured)



PGY2 – Poster / Podium Presentation

1st Place (Tie) - TONY HADDAD and IDRIS BARE

2nd Place - CHRISTOPHER OLIVIER

3rd Place - BRANDON SUEN (pictured)



RESIDENT RESEARCH DAY AWARDS

PGY3 Podium Presentation



1st Place -

BRIANNE

PHILIPENKO

2nd Place -

YUNCONG

(ANDY) ZHANG



RESIDENT AWARDS



PRATEEK KUNDAPUR

Dr. David Cotton Jr. Professionalism Award

Awarded to the junior resident who best displays the qualities of professionalism, accountability, commitment to excellence, duty, integrity and respect for patients and colleagues.

BRENDON MACKNAK

Alex Trebek Sr. Teaching Award

Awarded by the PGY1 residents to the senior resident who displays excellence in bedside teaching, informal teaching and morning report teaching or any other teaching activities.



YUNCONG (ANDY) ZHANG

Kloppenburg Award

Awarded to the PGY 3 resident who has shown consistent excellence in research throughout their core years.

RESIDENT TEACHING AWARDS (As voted by Residents)



BRIANNE PHILIPENKO

Dr. Ian Holmes Sr. Professionalism Award

Awarded to the senior resident who best displays the qualities of professionalism, accountability, commitment to excellence, duty, integrity and respect for patients and colleagues.

BRENDON MACKNAK

Dr. T.W. Wilson Spirit Award

Awarded by the Internal Medicine Residents to the resident whose outstanding contribution to the program helped to build a rewarding and positive environment, motivating and inspiring his or her colleagues.



FACULTY TEACHING AWARDS (As voted by Residents)

DR. MICHAEL PRYSTAJECKY

Clinical Teacher of the Year Award

Awarded by the Internal Medicine Residents to a staff teacher for teaching excellence in informal and formal settings.



DR. SHAQIL PEERMOHAMED

Distinguished Lecturer Award

Awarded by the Internal Medicine Residents to a staff teacher for teaching excellence in Grand Rounds, Academic Half Day or any Subspecialty Rounds.

DR. UPUL MADAMPAGE

IPPA Bedside Teaching Award

Awarded by the Internal Medicine Residents to a staff teacher for excellence bedside teaching.

DR. LIZ GIBBINGS

Outstanding Regina Teaching Award (Regina Faculty)

Awarded by the Regina Internal Medicine Residents to a staff teacher for teaching excellence in informal or formal settings.

RESEARCH FUNDING

(Source: USask Uview based on site PI information).

NAME	DIVISION	AGENCY	TITLE
Payam Dehghani	Cardiology	College of Medicine	Heart Failure after Laboratory-Confirmed Influenza Infection (FLU-HF)
Payam Dehghani	Cardiology	Edwards Lifesciences Corporation	PVC-imate Trial: Using Premature Ventricular Contraction Hemodynamics from the cardiac catheterization lab to discriminate pseudo from true aortic stenosis
Erik Pausjensen	Cardiology	Department of Medicine	The Dr. Viktor A. Pollak and Mirka B. Pollak Cardiology Research Fund
Colin Pearce	Cardiology	CSL Behring Canada Inc.	AEGIS-II - A Phase 3, Multicenter, Double-blind, Randomized, Placebo-controlled, Parallel-group Study to Investigate the Efficacy and Safety of CSL112 in Subjects with Acute Coronary Syndrome
Jay Shavadia	Cardiology	Department of Medicine	Metformin Continuation Versus Interruption Following Coronary Angiography: A Pilot Control Trial
Alexander Zhai	Cardiology	Quintiles Canada Inc.	1245.110 - A phase III randomised, double-blind trial to evaluate efficacy and safety of once daily empagliflozin 10 mg compared to placebo, in patients with chronic Heart Failure with preserved Ejection Fraction (HFpEF)
Alexander Zhai	Cardiology	Quintiles Canada Inc.	1245.121 EMPEROR: A Phase III Randomised, Double-Blind Trial to Evaluate Efficacy and Safety of Once Daily Empagliflozin 10 Mg Compared to Placebo, in Patients with Chronic Heart Failure with Reduced Ejection Fraction
Alexander Zhai	Cardiology	University of Alberta	The long-term effects of dietary sodium restriction on clinical outcomes in patients with heart failure (SODIUM-HF - Study of Dietary Intervention Under 100 MMOL in Heart Failure)”

NAME	DIVISION	AGENCY	TITLE
George Katselis	CCHSA	College of Medicine	College of Medicine Research Award (CoMRAD): Proteomics Studies in Parkinson's Disease
George Katselis	CCHSA	SHRF	Investigating the Role of Diabetic Pregnancies in Kidney Disease Among Type 2 Diabetes Mellitus Adolescents Using Urine Proteomics
Shelley Kirychuk	CCHSA	SHRF - Lung Association of Saskatchewan	Ambient Air Quality and Respiratory Health in Saskatchewan: the influence of PM2.5
Shelley Kirychuk	CCHSA	Mitacs	The Effects of Resp-Aid on Asthma (re Amanda Florentina do Nascimento)
Niels Koehncke	CCHSA	College of Medicine	College of Medicine Research Award (CoMRAD): Worker Radiation Safety Practices During Mobile Equine Radiography
Josh Lawson	CCHSA	College of Medicine	College of Medicine Research Award (CoMRAD): An investigation into the relationship between childhood asthma and mental health conditions
Josh Lawson	CCHSA	SHRF - Lung Association of Saskatchewan	Patterns of exposure to traditional and electronic cigarette smoking and their relationship to lung health outcomes among children and adolescents
Debra Morgan	CCHSA	CIHR	CIHR Summer Program in Aging (in Technology) Melanie Bayly: Dementia-related support and education accessibility and use in rural areas: Barriers and promising solutions
Debra Morgan	CCHSA	CIHR	Dementia care in rural and remote area, Phase II of Canadian Consortium in Neurodegeneration in Aging, CIHR and partners including SHRF.
Catherine Trask	CCHSA	Alberta Ministry of Labour	Combining health and safety with productivity in agriculture: an ergonomic evaluation of exoskeleton for farm tasks
Terra Arnason	Endocrinology	Department of Medicine	Overcoming multiple drug resistance in malignancy: climbing the evolutionary ladder

NAME	DIVISION	AGENCY	TITLE
Sharyle Fowler	Gastroenterology	College of Medicine	Cannabidiol in IBD: Assessment of current use in Saskatchewan and Phase I dose escalation study
Sharyle Fowler	Gastroenterology	Iqvia	ABX464-103 Confidential Disclosure Agreement
Sharyle Fowler	Gastroenterology	Quintiles Canada Inc.	CDA with IQVIA for SERES-201 protocol
Lawrence Worobetz	Gastroenterology	College of Medicine	Antimicrobial Susceptibility of Helicobacter Pylori in the Saskatoon Health Region (Kundapur)
Sharon Card	GIM	College of Medicine	Using Design Thinking to Improve Internal Medicine Residents' Educational Experiences under a Competency Based Medical Education Model (Dean)
Alexandra King	GIM	CIHR	Connections With The Land: Developing Gender Appropriate Two-Eyed Seeing Land-based Wellness Interventions, Wise Practices, Research Methodologies, and Knowledge Translation and Exchange for Indigenous People with Lived HIV and/or HCV Experience.
Alexandra King	GIM	CIHR	Current Best Practices in Chronic Disease Prevention, Self-Management and Care: How Does this Translate into a Community Based Model?
Alexandra King	GIM	CIHR	Decolonizing health and wellness interventions by creating, implementing and evaluating culturally responsive program components with Indigenous women living with HIV and Aging with Wisdom
Alexandra King	GIM	CIHR	Peers4Wellness: Indigenous Approaches to Wellness Support and Research for Indigenous Women with HIV and HCV in British Columbia and Saskatchewan
Alexandra King	GIM	College of Medicine	CheckUp: Time to Focus on and Learning from Inuit

NAME	DIVISION	AGENCY	TITLE
Alexandra King	GIM	Department of Medicine	DRUM 2: First Nation and Metis communities working in partnership to develop shared care models for HIV and other STBBI - Saskatchewan component
Alexandra King	GIM	Pauktuutit Inuit Women of Canada	CheckUp: Time to focus on and learning from Inuit
Alexandra King	GIM	Saskatchewan Centre for Patient-Oriented Research	Patient Engagement Application Development Award
Rabia Shahid	GIM	College of Medicine	Effectiveness of Pre-Operative Per-Protocol Selective Testing Versus Routine Testing in Elective Joint Replacement Surgery
Rabia Shahid	GIM	Department of Medicine	Assessing the impact of health literacy on patient outcomes in hospitalized patients
Eric Sy	GIM	Department of Medicine	Early Airway Pressure Release Ventilation (APRV) in Adult Acute Respiratory Distress Syndrome (ARDS)
Stuart Skinner	Infectious Diseases	College of Medicine	Integrating Indigenous culture with HIV care to reduce HIV-related stigma and enhance HIV screening, diagnosis and linkage to care
Alexander Wong	Infectious Diseases	College of Medicine	College of Medicine Research Award (CoMRAD): Nursing Initiated Community HIV/Hepatitis Engagement (NICHE) Project
Alexander Wong	Infectious Diseases	Department of Medicine	Towards an Elimination Strategy for Hepatitis C in Saskatchewan - Identifying and Overcoming Barriers in Care for Persons with hepatitis C
David Reid	Nephrology	Department of Medicine	Prevention of Acute Kidney Injury During Cardiopulmonary Bypass: Role of matrix metalloproteinases
Ahmed Shoker	Nephrology	Bristol-Myers Squibb Canada Inc.	CDA with BMS
Ahmed Shoker	Nephrology	Icon Clinical Research Canada Inc.	CDA with ICON for Vitaeris Inc.: Phase 3 Chronic Active ABMR Study in Kidney Transplant Recipients (Study No: 3940/0006).

NAME	DIVISION	AGENCY	TITLE
Ahmed Shoker	Nephrology	Quintiles Canada Inc.	CDA with Quintiles for IFX-1-P2.6 protocol
Brett Graham	Neurology	Canadian Stroke Trials for Optimized Results	Building Stroke Research Capacity in Saskatoon
Gary Hunter	Neurology	College of Medicine	College of Medicine Research Award (CoMRAD): Focused cardiac ultrasound in stroke: a feasibility study
Michael Levin	Neurology	Biogen Canada Inc.	MS Clinical Research Seminar Series
Michael Levin	Neurology	College of Medicine	A dysfunctional RNA binding protein contributes to neurodegeneration in multiple sclerosis (MS)
Michael Levin	Neurology	SHRF	Acquired DNA mutations contribute to neurodegeneration in MS
Iliia Poliakov	Neurology	F. Hoffmann-la Roche Ltd	MN39159, "An Open-Label Single-Arm 4-year study to evaluate effectiveness and safety of ocrelizumab treatment in patients with progressive multiple sclerosis"
Kerri Schellenberg	Neurology	Cytokinetics Inc.	A Phase 2, Multi-Center, Double-Blind, Randomized, Dose-Ranging, Placebo-Controlled Study To Evaluate The Efficacy, Safety, And Tolerability Of CK-2127107 In Patients With Amyotrophic Lateral Sclerosis (ALS) FORTITUDE-ALS
Jose Tellez-Zenteno	Neurology	Royal University Hospital Foundation	Changes in attention and executive function in patients with new onset epilepsy who start for the first time anti-epileptic drugs
Donald Cockcroft	Respirology	Allergen NCE Inc.	Inhaled Allergen Challenge Methodology: Assessment of a Vibrating Mesh Nebulizer for Allergen Administration
Mark Fenton	Respirology	SHRF - Lung Association of Saskatchewan	Synchrotron imaging to characterize chronic allograft rejection in a swine lung transplant model
Donna Goodridge	Respirology	Canadian Centre for Aging and Brain Health	CABHI CID – Improving Access to Support: Development and Evaluation of a Novel App for Family Caregivers of People with Dementia

NAME	DIVISION	AGENCY	TITLE
		Innovation Advancement Inc.	
Donna Goodridge	Respirology	College of Medicine	Building Bridges - Fostering Respectful Communities in Senior's Social Housing
Donna Goodridge	Respirology	Department of Medicine	Improving Chronic Illness Care: Pilot Study of a Collaborative Goal Setting Intervention with Patients with Advanced Respiratory Illness
Donna Goodridge	Respirology	Royal University Hospital Foundation	Health Literacy: Reducing Inequities and Improving Outcomes for Clients of the Mental Health Assessment Unit
Donna Goodridge	Respirology	Saskatchewan Centre for Patient-Oriented Research	Promoting Health Literacy of Stroke Survivors
Donna Goodridge	Respirology	SHRF	"Advances in Respiratory Research: What Patients and Families Need to Know"
Donna Goodridge	Respirology	SHRF	Improving Access to Support: Development and Evaluation of a Novel App for Family Caregivers of People with Dementia
John Gordon	Respirology	College of Medicine	Regulatory dendritic cell immunotherapy for allergic diseases
John Gordon	Respirology	Department of Medicine	Regulatory dendritic cell (DCreg) therapies research
John Gordon	Respirology	GlaxoSmithKline Inc.	Humanization of NSG Mice for Asthma Studies
Darcy Marciniuk	Respirology	Mereo BioPharma Group plc	MPH966-2-01: A Phase 2, Proof-Of-Concept, Multicentre, Double-Blind, Randomised, Dose-Ascending, Sequential Group, Placebo-Controlled Study To Evaluate The Mechanistic Effect, Safety, And Tolerability Of 12 Weeks Twice Daily Oral Administration Of Alvelestat (MPH966) In Participants With Alpha-1 (PiZZ Or Null Genotype/Phenotype) Antitrypsin Deficiency
Erika Penz	Respirology	Astrazeneca Canada Inc.	POWER: Patient Outcomes Real World Evidence Registry

NAME	DIVISION	AGENCY	TITLE
Erika Penz	Respirology	College of Medicine	Exploration of End of Life Care in Lung Cancer and COPD
Erika Penz	Respirology	SHRF - Lung Association of Saskatchewan	An examination of patient reported outcomes in COPD patients utilizing a novel mobile application
Rob Skomro	Respirology	SHRF - Lung Association of Saskatchewan	Study of the pathogenesis and progression of bleomycin-induced idiopathic pulmonary fibrosis in the distal airway and alveoli using synchrotron-based imaging.
Julian Tam	Respirology	Astrazeneca Canada Inc.	Dr. David Cotton Excellence Award for 2018 - Dr. Julian Tam
Julian Tam	Respirology	Cystic Fibrosis Canada	Saskatoon Adult Cystic Fibrosis - Cystic Fibrosis Canada Clinic Incentive Grant
Chung-Chun (Anderson) Tyan	Respirology	Saskatchewan Health Authority	Stather Canadian Outcomes Registry for chest ProceDurEs (SCOPE) Registry
Veronica Marcoux	Respirology	Providence Health Care Society	Data Transfer Agreement, Canadian Registry for Pulmonary Fibrosis (CARE-PF)
Regina Gjevre	Rheumatology	Saskatchewan Centre for Patient-Oriented Research	Patient Engagement Application Development Award
Prystajecky, Michael		Department of Medicine	Increasing Postpartum Diabetes Screening Among Patients with Gestational Diabetes Mellitus: A Continuous Quality Improvement Initiative

DEPARTMENT PUBLICATIONS

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B Hiebert, K Harrison, A Panahifar, A Ashique, **T Arnason**, J Andronowski. (2019). Trends in health care-associated infections in acute care hospitals in Canada: an analysis of repeated point-prevalence surveys. *CMAJ*, 191(36), E981-E988.

G Sivaskandarajah, **T Arnason**. (2018). Unsuspected Von Hippel-Lindau syndrome in acute-onset resistant hypertension. *BMJ case reports*, 2018, bcr-2018.

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M Herridge, S Lapinsky, J Muscedere, **J Barton**, D Griesdale, M Soth, A Ambosta, G Lebovic, R Wald and on behalf of the Canadian Critical Care Trials Group (2019). Selection and Receipt of Kidney Replacement in Critically Ill Older Patients with AKI. *Clin J Am Soc Nephrol*, 14 (4) 496-505; DOI: <https://doi.org/10.2215/CJN.05530518>

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A Carter, A Denton, L Ladino, I Hassan, T Sawchuk, T Snyder, M Vrbancic, M Reuber, R Huntsman, **J Tellez-Zenteno**; PNES Canada Group. (2018). Experience of psychogenic nonepileptic seizures in the Canadian league against epilepsy: A survey describing current practices by neurologists and epileptologists. *Seizure*, 61, 227-233.

S Ezzat, **G Caspar-Bell**, C Chik, M Denis, M Domingue, S Imran, M Johnson, H Lochnan, B Grégoire Nyomba, A Prebtani, R Ridout, J Ramirez, S Van Uum. (2019). Predictive Markers for Postsurgical Medical Management of Acromegaly: A Systematic Review and Consensus Treatment Guideline. *Endocrine Practice*, 25(4), 379-393.

D Kaminsky, A Coates, B Culver, **D Cockcroft**, T Hallstrand, J Haynes, N MacIntyre, J Wanger. (2019). Reply to Amirav and Newhouse: PC20 versus PD20: Why Change a Scientifically Well-Established and Clinically Relevant Test?. *American journal of respiratory and critical care medicine*, 199(8), 1038-1038.

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M Fenton, **B Graham**, S Stanojevic, L Whitford, L Ironstand. (2018). Interpretation of spirometry in saskatchewan first nations adults. *Annals of the American Thoracic Society*, 15(10), 1237-1239.

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