

# 2024 Review

**Department of Medicine**

2023- 2024 ANNUAL REPORT





Cover Photography:  
Top: Interdisciplinary Chronic Disease Collaboration: DOM Photo  
Middle: Dr. May Choi Lab | Photographer: Don Molyneaux  
Bottom: Dr. Zahra Goodarzi & Dr. Margaret McGillivray

Department of Medicine

Vision

Optimal healthcare and wellness for all.

Mission

To equitably advance health and wellness by cultivating a community of diverse physicians who lead through care delivery, discovery, innovation, education, and knowledge implementation.

Core Values



**Community of Colleagues** - working collaboratively to create a respectful, inclusive, engaging and compassionate environment for our patients, our colleagues and each other.



**Citizenship in Action** - focused on accountability, transparency and fulfilling our collective duties to provide high quality patient-centered care to all Albertans.



**Leading through Excellence** - by promoting the curiosity and courage needed to aspire innovation and excellence in academic medicine across the CARE (clinical; administration/leadership; research/scholarship; education/training) pillars.



**Focusing on Wellness** - where valuing wellness for the collective supports patients' safety, as well as promotes individual department members to realize optimal integration of career with their personal life.

Geographic scope

The Department of Medicine is located in the Alberta Health Services – Calgary Zone and at the Cumming School of Medicine, University of Calgary. The Department serves a catchment area of 2.4 million residents of Southern Alberta, Southeastern British Columbia and Southwestern Saskatchewan. Department Members are located in 7 medical sites across Calgary, including the Foothills

Medical Centre (FMC) and UCalgary Foothills Campus, Peter Lougheed Centre (PLC) and Sunridge Gallery, Rockyview General Hospital (RGH), South Health Campus (SHC), Richmond Road Diagnostic and Treatment Centre (RRDTC), Sheldon M. Chumir Health Centre, and Bridgeland Seniors Health Centre.

2024 Review  
DEPARTMENT OF MEDICINE  
UNIVERSITY OF CALGARY AND  
ALBERTA HEALTH SERVICES  
2023-24 REPORT

20,446

Inpatients attended in the four  
Calgary Adult Hospitals

PAGE  
20

As the people of the healthcare system strive to perfect the quality of care, I strive to achieve the best quality of life. Together, we make an incredible team.

PAGE  
05

\$28.73

in total research revenue,  
including \$5.67 M in CIHR

PAGE  
17



**PARENT ORGANIZATIONS**  
The Department of Medicine exists as a Department within both Alberta Health Services (AHS) and the University of Calgary (UCalgary). To reflect this unique dual-organizational structure, both AHS' and the UCalgary's logos and colour palettes are featured in balance throughout this Report.

Overcoming stigma and funding delays to transform lung cancer outcomes

Lung Cancer Screening in Alberta

PAGE  
07

**EXECUTIVE SUMMARY**  
DR. JAYNA  
HOLROYD-LEDUC

PAGE  
03

**UPDATE ON STRATEGIC PLAN**  
2023-2028 ACTIVITIES

PAGE  
04

FEATURE STORIES

**ACUTE KIDNEY INJURY & UPTAKE RESEARCH INITIATIVE**

PAGE  
05

**LUNG CANCER SCREENING IN ALBERTA**

PAGE  
07

**LUPUS CENTRE OF EXCELLENCE**

PAGE  
09

**HEALTH ANALYTICS & QUALITY IMPROVEMENT IN THE DOM**

PAGE  
11

53,933

outpatient clinic referrals received by Central Access & Triage (CAT) and 4,239 from Seniors Health One-line

PAGE  
20

**TRANSPLANT MEDICINE: A STORY OF TRANSFORMATIVE CHANGE**

PAGE  
13

**GERIATRIC EMERGENCY MEDICINE TASK FORCE**

PAGE  
15

**INDIGENOUS HEALTH CLINICS**

PAGE  
16

**GI CAT: REFINING THE SINGLE POINT OF ACCESS SYSTEM**

PAGE  
17

**NURTURING A CULTURE OF APPRECIATION IN THE DOM**

PAGE  
18

**KEY DEPARTMENTAL METRICS**

PAGE  
19

**DIVISION / SECTION PROFILES**

Dermatology

PAGE  
23

Endocrinology & Metabolism

PAGE  
25

Gastroenterology & Hepatology

PAGE  
27

General Internal Medicine

PAGE  
29

Geriatric Medicine

PAGE  
31

Hematology & Hematological Malignancies

PAGE  
33

Infectious Diseases

PAGE  
35

Nephrology

PAGE  
37

Respiratory Medicine

PAGE  
39

Rheumatology

PAGE  
41

Transplant Medicine

PAGE  
43

**IMRP**

PAGE  
45

**OUR COMMUNITY**

PAGE  
47

**DEPARTMENT DEMOGRAPHICS & PERFORMANCE METRICS**

Organization Chart

PAGE  
49

Membership Data

PAGE  
50

Faculty Appointment Data

PAGE  
51

ISA and Publication Data

PAGE  
52

Research Revenue Data

PAGE  
53

Physician Funding Data

PAGE  
54

Inpatient Data

PAGE  
55

Outpatient Data

PAGE  
56

Specialist Link Data

PAGE  
58

Promotions and Awards

PAGE  
59

# Executive Summary

## Dr. Jayna Holroyd-Leduc



It is my privilege, as department head, to present the Department of Medicine's 2024 Annual Report. Our division/section heads, faculty, and members of the department's communications, analytics, finance and physician services teams have worked hard to provide reports and information that highlight many of the department's important clinical, educational, research, and administrative activities and accomplishments in the 2023-24 Fiscal Year. I thank them for their contributions.

As a department, we continue to innovate in our delivery of effective patient-centered care. In 2023-24 department members provided exemplary clinical care as attending physicians for almost 20,500 inpatients and as consultant physicians for over 32,000 inpatients. We received almost 54,000 outpatient referrals through Central Access and Triage plus 4,239 through Seniors Health One-line, and nearly 12,000 Specialist Link calls. In addition, many members provided clinical care for patients within their community-based offices.

The department continues to educate future generations of physicians through our excellent core Internal Medicine Residency Program, ten sub-specialty residency training programs, and several Canada-leading Advanced Fellowship training programs. Members of the department also contributed to undergraduate and graduate student education, training and mentorship, as well as to the various continuing medical education and professional development programs. Several members hold educational leadership roles within the university. The faculty within the Department of Medicine are effective and dedicated educators, teachers, mentors, and educational leaders, as evidenced by the number of educational, teaching, and mentorship awards and recognitions that our members have received this past fiscal year.

Researchers within the department, working across the Cumming School of Medicine research institutes, are having broad impact. The Department's total annual research revenue in 2023-24 was \$28.73 million, which supported 337 research projects across the department/university/country. Our department members continue to lead a broad array of innovative and impactful research programs, supported by our Vice Chair of Research and Scholarship.

Department members were authors on over 970 publications, with 266 members having authored at least one publication in 2023. Members are also providing key and effective leadership within the University of Calgary and Alberta Health Services (AHS), as well as through National and International roles and collaborations.

The department continues to progress in our mission to equitably advance health and wellness by cultivating a community of diverse physicians who lead through care delivery, discovery, innovation, education, and knowledge translation. Under the leadership of our Vice Chair for Indigenous Health, the faculty and trainees within the department have continued to expand our role in the provision of high quality care for Indigenous patients, while also respecting community needs and approaches. Our Office of Physician Wellness and EDIA continues to cultivate a healthy, inclusive, and respectful work and care environment, while our Office of Education supports our members to realize their full potential as educators and teachers. The department continues to lead in quality improvement and patient safety initiatives within AHS through our health analytics, quality, and safety portfolio.

Impactful work continues to be done in the department, as evidenced by the outstanding contributions and achievements featured in this report. I hope that you enjoy reading our 2024 Annual Report.

**Dr. Jayna Holroyd-Leduc**  
Department Head, Department of Medicine

# Strategic Plan 2023 - 2028 Status Updates

AS OF TIME OF PUBLICATION DECEMBER 2024

1

**CLINICAL PRIORITY #1**  
Expand shared care both within & outside the department

- Grew/expanded multidisciplinary clinical programs involving members across divisions/departments. Examples of newer or expanded multidisciplinary clinical programs included:
- Microbial Therapeutics and FMT clinic
  - Geri-Oncology clinic
  - ILD clinic
  - Giant cell arteritis fast track clinic
  - Vulvar dermatoses clinic
  - Systemic amyloidosis program
  - Anaplastic Thyroid Cancer Rapid Access Team
  - Transplant Wellness Program

- Expanded inpatient services to meet increasing patient volumes
- Expanded the numbers of General Medical units to ensure optimal patient care, while maintaining a priority on medical education on the Medical Teaching units
  - Worked with AHS Operations and Medical Affairs to optimize non-physician supports, including a focus on all providers working to full scope of practice

Nocturnist program expanded (PLC, FMC and now RGH) to support safe care in the evenings/nights, while preventing physician burn-out

- Working to optimize CAT across the DOM to better manage the increasing volumes of referrals and associated waitlists
- Departmental CAT working group chaired by Dr. Thomas, DOM Deputy Head
  - GI expanded their CAT program (receive over 2500 referrals each month)

- DOM Sections/Divisions continue to provide significant amount of direct support to primary care in the Calgary Zone through Specialist Link
- are 5 of the 10 busiest specialist link services
  - developed 8 of 10 most commonly down-loaded pathways

2

**CLINICAL PRIORITY #2**  
Build capacity to care for Indigenous peoples, members of visible minorities, members within the 2SLGBTQ+ community, refugees, and persons experiencing addictions & mental health issues

- Led by DOM Vice Chair for Indigenous Health (Dr. Kelle Hurd):
- Continued to grow clinical (MD/NP) programs for First Nations (currently 7 programs across 5 First Nation communities)
- Provided educational programing including Structural Safety and Trauma Informed Care sessions for trainees, Indigenous health content in sub-specialty training program, IMRP Indigenous Health Spiral curriculum, and GIM longitudinal fellowship elective at Siksiika

3

**ADMINISTRATION/LEADERSHIP PRIORITY #3**  
Promote an inclusive & empowering leadership culture

- EDI moments continued at Medical Services Executive Council and were added to IMRP Residency Program committee
- Expanded DOM Associate Vice Chair roles to create mentorship and development opportunities for emerging leaders

4

**RESEARCH & SCHOLARSHIP PRIORITY #4**  
Value, support, and promote the broad array of research and scholarship contributions of DOM members

- Updated DOM Research & Scholarship matrix
- Developed a DOM Research Start-up Guidance document for new clinician (GFT) researcher and clinician (MC) investigator hires, introducing standardization and equity across Sections/Divisions
- DOM newsletter, annual report and website highlight research impacts and successes, as well as research funding and grant development opportunities

5

**RESEARCH & SCHOLARSHIP PRIORITY #5**  
Develop the infrastructure needed to support DOM members to pursue quality improvement (QI) and patient safety initiatives that strengthen our health system.

- Continued to develop infrastructure to support QI work within the department (including adding Assoc Vice Chair of QI; hiring QI consultant with UCMG funds; annual DOM data analytic & QI award using UCMG funds)
- Held the first DOM Symposium on Health Care Quality (March 2024)

6

**EDUCATION & TRAINING PRIORITY #6**  
Ensure DOM members are trained and demonstrate effectiveness in areas critical to providing high quality teaching & learning

DOM Office of Education and Education Executive committee are working on:

- Developing and disseminating teaching expectations and standards based on existing PGME and UME standards, and factoring in the diversity and variety of teaching and supervision within the DOM
- Developing an initiative to support physicians to up-skill
  - "Raising the Floor" – to support members who are struggling to meet minimal educational standards
  - "Raising the Ceiling"- for individuals interested in developing their teaching skills and/or in educational career development

7

**EDUCATION & TRAINING PRIORITY #7**  
Recognize and support all DOM members in their contributions to education

- DOM website lists opportunities for teaching within IMRP and clerkship (including sign up)
- DOM Office of Education held a small group session with FFS Educators to gain their insights, with findings to be operationalized over the coming years

8

**OUR PEOPLE PRIORITY #8**  
Promote a culture of active and universal citizenship within the DOM

- Added a Citizenship award to the DOM Annual Awards
- Recognizing Unsung Heroes at Medical Grand Rounds
- Held a DOM Leadership retreat focused on creating a culture of appreciation

9

**OUR PEOPLE PRIORITY #9**  
Create an equitable, diverse, and inclusive DOM free from discrimination, racism, bias, and harassment

- Created a DOM Annual EDIA award
- Incorporated EDI micro-moments into Medical Grand Rounds
- Created a new Office of Physician Wellness & EDIA
  - Dr. Brandie Walker, Vice Chair for Physician Wellness & Vitality
  - Dr. Shannon Ruzycki, Vice Chair for EDIA
- DOM Equity and Diversity Working Group and DOM Anti-Racism Taskforce combined to form the new DOM Equity and Anti-Racism Action Committee

10

**PRIORITY #10**  
Expand career & life transition support with an associated focus on physician wellness

- Office of Vice Chair of Physician Wellness & Vitality focuses included:
  - Peer Support Team
  - Holding new Transition-in-Practice session for mid-career members
- Supported opportunities for coaching and for mindfulness education
- Continued Promotion Mentorship Program





Dr. Michelle Grinman showing patient partners the monitoring kit with Drs. Matthew James and Tyrone Harrison from the DOM

# Acute Kidney Injury & the UPTAKE Research Initiative

## Guiding transition from hospital-to-home to improve patient outcomes

Each year, 5–9% of all hospitalized patients develop acute kidney injury (AKI), affecting over 30,000 Albertans and more than 200,000 Canadians.



Acute Kidney Injury is characterised by a sudden loss of kidney function and is associated with poor health outcomes. Unfortunately, these patients are at significantly high risk for further complications: one in five patients who survive a hospitalization are readmitted to the hospital within 30 days—a rate 40% higher than for other medical patients.



**20%**  
1 in 5 patients get  
re-admitted after hospital  
discharge within 30 days

For those discharged following an AKI episode, the risks of long-term health issues are substantial. Patients face an 8-fold increased risk of developing chronic kidney disease (CKD) and are more than 10 times more likely to progress to kidney failure, requiring dialysis or transplant. Additionally, they have a 50–60% greater risk of experiencing severe cardiovascular events, such as heart failure, heart attack, or stroke. Alarming, within the next year, these individuals also face a risk of death that exceeds that of patients who have suffered a heart attack.



**10x**  
more likely to progress to  
Chronic Kidney Disease  
after AKI episode.

Despite these heightened risks, gaps in post-discharge care for patients with AKI are common. Sixty percent of patients receive no follow-up assessment within the first 30 days after discharge, and fewer than 5% see a nephrologist in the year following hospitalization.

Even among those who develop CKD after AKI, fewer than 30% receive renin-angiotensin system inhibitors or statins—treatments known to help prevent kidney and cardiovascular complications.

### NOVEL SOLUTIONS TO ADDRESS THESE KEY CHALLENGES AFTER AKI

The research team from the Interdisciplinary Chronic Disease Collaboration (ICDC) in the Department of Medicine, UCalgary, includes people with lived experience, clinicians, health system decision makers, and researchers. The team uses an integrated knowledge translation approach to co-design, implement, and test novel solutions to address these key challenges in care after AKI.

Researchers on the team bring expertise in computerized clinical decision support, implementation science, and clinical trials. The work is being done in close partnership with AHS, including clinical informatics specialists with Connect Care, the Home to Hospital to Home Transition (H2H2H) Initiative, and Primary Health Care Integration Network. Drs. Maoliosa Donald, Tyrone Harrison, and Matthew James from the UCalgary and Dr. Neesh Pannu from UAlberta lead the research program. Additional members of the DOM involved with the project include Drs. Sandra Dumanski, Paul Davis, Meghan Elliott, Michelle Grinman, Rachel Jeong, Jennifer MacRae, and Pietro Ravani.

"As the people of the healthcare system strive to perfect the Quality of Care, I strive to achieve the best Quality of life. Together, we make an incredible team."

- D'Arcy Duquette, Patient Partner UPTAKE Project

### PATIENT PARTNER IMPACT

D'Arcy Duquette, a Patient Partner on the UPTAKE project describes his experience

"I had surgery to remove a mass. Things did not go well. I was septic and placed in a medically induced coma for five weeks. This resulted in me spending 71 days in hospital and 16 months in physio recovering, which included three months of dialysis. I still have several issues, but I'm here, and I have learned to live with them. I enjoy sharing my lived experiences to make a positive impact on patients and families. I really enjoy these opportunities because they involve working together toward a common goal. As the people of the healthcare system strive to perfect the Quality of Care, I strive to achieve the best Quality of life. Together, we make an incredible team. In this work, you are working with people within and outside the field of medicine who have knowledge and lived experiences beyond your own to achieve this complex understanding."

### PROJECT SPOTLIGHT: UPTAKE

UPTAKE (Using Personalized risk and digital tools to guide Transitions following Acute Kidney Events) is a research initiative designed to implement and test innovations in care to improve the long-term outcomes for people in Alberta who have been hospitalized with Acute Kidney Injury (AKI). The UPTAKE project is focused around two inter-related randomized controlled trials, that build upon more than a decade of research on AKI at UCalgary. The trials include all patients 18 years of age or older who have been hospitalized with AKI stage 1-3.

#### ➔ UPTAKE-1

AKI can lead to chronic kidney disease (CKD) and related cardiovascular complications. For some individuals, the risks of these complications may be high, while for others, the risks are low. Previous research at UCalgary demonstrated that the risk of CKD following AKI could be predicted based on six routinely collected variables, and that outpatient follow-up strategies based on the risk model were superior to the usual care decisions.

In the UPTAKE project, clinicians and researchers are evaluating ways to improve the care, experiences, and long-term outcomes of people with AKI at the time of hospital discharge. This is achieved through the implementation of care interventions designed to improve continuity of care between hospital and home settings and are tailored to each individual person's specific

medical conditions and CKD risk profile.

The intervention is delivered through decision support tools and care pathways that are integrated with the Connect Care clinical information system across the province of Alberta. Its effectiveness is being tested in a pragmatic randomized trial, measuring the impact on important long-term kidney and cardiovascular health outcomes and patient experiences with their care. The project is funded by a Canadian Institutes of Health Research (CIHR) Transition in Care Team Grant.

#### ➔ UPTAKE-VIRTUAL CARE

Patients with AKI can also experience lengthy hospital stay and one in five are readmitted to hospital within 30 days following discharge, often for preventable reasons such as heart failure, recurrent AKI, or infection. The UPTAKE-VC project is using digital algorithms

implemented in Connect Care to identify patients with AKI and a high risk of readmission or death and testing whether care incorporating digital remote monitoring in the Virtual Home Hospital programs in the Calgary and Edmonton Zones improves patient experiences and outcomes during this particularly vulnerable period of the hospital-to-home transition. Patients are provided with a take home kit with the ability to monitor blood pressure, weight and check in with a physician.

This randomized trial will compare the effect of the intervention to usual care on a primary outcome of days alive at home in the first 45 days following AKI, in addition to processes of care, and patient experiences with their transition from hospital to home. The project is funded by an Alberta Innovates Partnership for Research and Innovation in the Health System (PRIHS) Digital Health Grant.



The research team from the Interdisciplinary Chronic Disease Collaboration (ICDC) and the Virtual Home Hospital







Photographer: Leah Hennel | Dr. Alain Tremblay and Patient Partner of Lung Cancer Screening Research\*

# Lung Cancer Screening in Alberta

## Overcoming stigma and funding delays to transform lung cancer outcomes

Lung cancer remains the leading cause of cancer-related deaths, claiming more lives than breast, colon, and prostate cancers combined. In Alberta alone, more than 1,500 people die from lung cancer each year with only a 28% overall five-year survival rate.

The stigma surrounding lung cancer, often linked to smoking, poses significant challenges in addressing the disease and improving patient outcomes. This negative perception creates barriers to securing funding and donations, as many potential contributors hesitate to support initiatives related to lung cancer due to its association with smoking.

Despite the substantial revenue generated from tobacco taxes, none of these funds are directly allocated to support lung cancer patients. The disease is extremely lethal and severely underfunded

Despite the substantial revenue generated from tobacco taxes, none of these funds are directly allocated to support lung cancer patients. The disease is extremely lethal and severely underfunded, disproportionately impacting individuals from lower socioeconomic groups and rural Albertans, making it a tough issue to tackle.

While screening programs for other cancers like colon, breast, and cervical are well-established, the adoption of lung cancer screening has faced considerable delays despite significant research evidence supporting its benefits.

The National Lung Screening Trial (NLST), a large study conducted in the U.S. in 2011 with 50,000 participants, demonstrated that lung cancer screening reduced mortality (a finding later confirmed in the European NELSON trial). Remarkably, it remains the only cancer screening intervention to demonstrate an all-cause mortality reduction in a randomized trial. However, 13 years later, outside of British Columbia, Canadian provinces have yet to implement full scale lung cancer screening programs.

In 2016, the Canadian Task Force on Preventive Health

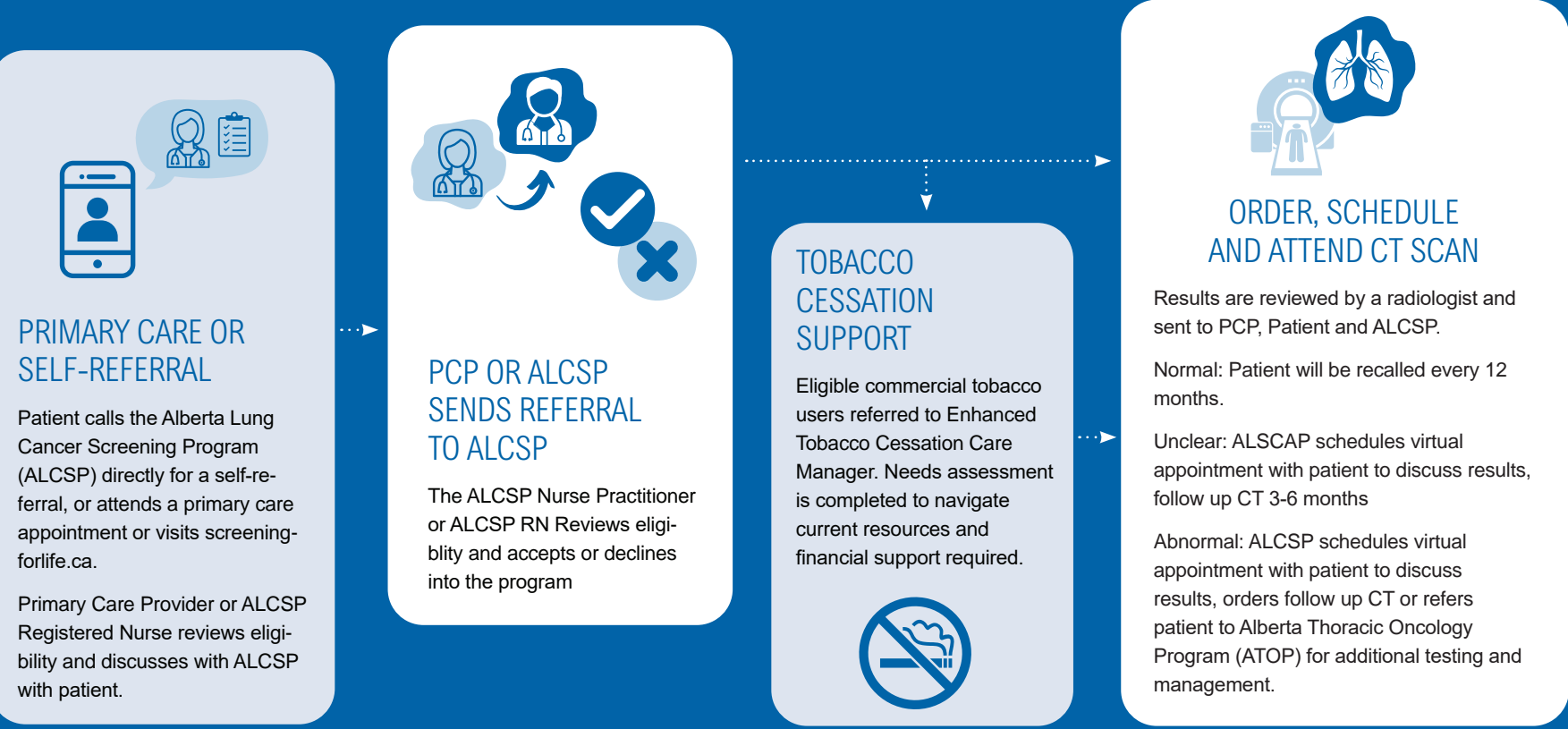
Care recommended adopting lung cancer screening programs, but it remains the only recommendation from the task force that has not been put into practice.

Despite this, research into lung cancer screening has been ongoing in Alberta since 2007. The first significant project saw Calgary participate in the PAN-CAN study which screened 2,500 individuals across the country and generated critical evidence-based Risk Prediction Model for patient management for lung nodules. Findings from this study, published in the New England Journal of Medicine (2013), have been used globally to risk-stratify patient results from lung cancer screening programs.

Building on this foundation, the Alberta Cancer Foundation funded the Alberta Lung Cancer Screening Study (ALCSS), which screened 800 Albertans (2014-2020). This was the first prospective study to assess the efficiency of risk prediction models in selecting individuals for screening, demonstrating their superior effectiveness over pack-year based "NLST-like" criteria.

### LUNG CANCER SCREENING PATIENT PATHWAY SUMMARY

Original Diagram Alberta Health Services / Screeningforlife.ca  
This is a condensed version highlighting the key parts.



### CLINICAL IMPLEMENTATION AND PILOTS IN CANADA

Ontario led the way in Canada with a pilot lung cancer screening project in 2016/2017, followed by British Columbia, which implemented a full-scale program in 2021. Other provinces have taken a more gradual approach, using pilot processes before committing to long-term programs. In Alberta, funding from the Canadian Partnership Against Cancer (CPAC) has supported a pilot project with a \$1.6 million grant. This pilot began in 2021, started enrolling participants in 2022, and will conclude in fall 2024 once 3,800 individuals have been enrolled. The results are being submitted to Alberta Health with the goal of establishing a full-scale lung cancer screening program in 2025.

### ALBERTA PILOT PROGRAM SPOTLIGHT

The Alberta pilot project was a joint partnership between CPAC and AHS, with CPAC providing funding and AHS contributing resources and infrastructure. Dr. Alain Tremblay, a respirologist in the Department of Medicine, was appointed as the Medical Lead of the program. The goal was to enroll and screen 3,000 individuals at risk of lung cancer.

During the planning stages in 2021, it was recognized that Connect Care was being implemented across the province. To ensure long-term efficiency, the screening program was integrated within Connect Care, even though this added some additional time to the implementation phase. This integration made it the first screening program to be entirely managed within Connect Care, covering all aspects from receiving

referrals and calculating risk to requesting CT scans, interpreting results, tracking program metrics, and communicating outcomes to family physicians and patients.

The program opened for screening in September 2022 and successfully enrolled 3,000 participants within approximately 20 months. Enrollment criteria is based on a personalized individual risk of lung cancer using the PLCO model, as tested in the PAN-CAN and ALCS Studies. Individuals identified with a 1.5% or more risk of lung cancer over six years are eligible. Referrals came from both primary care providers and self-referrals via the online tool screeningforlife.ca.

Initially, the project was conducted in Calgary, Edmonton, and Grand Prairie, and has since expanded to include High River and Wainwright. With the pilot initially scheduled to end in April 2024, there are hopes to transition to a full-scale Provincial program in 2025. Interim funding has been secured to extend the pilot to March 2025 with additional support from CPAC allowing for screening 800 more individuals while Alberta Health evaluates the pilot results and Provincial proposal. Efforts are ongoing to refine the Risk Prediction Model to optimize screening intervals and patient care efficiency for those at higher risk.

### RESOURCE CHALLENGES

Resource challenges have become apparent as the project progresses, necessitating additional funding and approval. Diagnostic imaging requirements, particularly capacity for CT scans, must grow significantly to meet the demands of a province-wide screening program. If fully implemented, the program could increase provincial CT scan volumes by 20%. The goal is to screen 50% of all at-risk Albertans within five years and 25% within

three years. Although new resources are required, the Cancer SCN has estimated that by reducing the high cost of treatment for advanced lung cancer, LCS would be overall cost-saving for the health care system.

“It’s better to know now than to find out when it’s too late... Having a screening program is vital for people to have a much better quality of life and see their dreams come true.”

- Patient Partner

Quoted from AHS news article by Vanessa Gomez - "Pilot focuses on early detection of cancer" - Feb 17, 2023\*

### EARLY OUTCOMES FROM THE PILOT ARE PROMISING

Within six months of referral, 98% of participants had undergone their scans, indicating high patient engagement and follow-through.

The screening program detected cancer in 10.8 cases per 1,000 people screened, with 83% of cancers found at an early stage. Early-stage (Stage 1) lung cancer has a cure rate of 90%.

This contrasts sharply to the current clinical practice where 66% of lung cancers are diagnosed at a late stage. Overall, lung cancer has a survival rate of 28% with current clinical processes, but this drops to just 5% for stage IV diagnoses.





# CALGARY LUPUS CENTRE OF EXCELLENCE

# Lupus Centre of Excellence

## Dedicated to Improving the Lives of those Living with Lupus

The University of Calgary Lupus Centre of Excellence was founded in 2013 with a mission to:

- deliver the highest possible standard of care, informed by research, in a multidisciplinary care environment,
- partner with patients to advance understanding of the causes, diagnosis, and treatment of SLE
- provide advanced clinical and research training

The centre is directed by Dr. Ann Clarke, who holds The Arthritis Society Chair in Rheumatic Disease Research at the University of Calgary. Dr. Megan Barber is the Centre's Associate Director of Clinical Research and Clinical Trials and Dr. May Choi is the Associate Director of Translational Research.

### CLINICAL CARE HIGHLIGHTS

Lupus affects almost every organ system and the centre is privileged to offer a range of multidisciplinary clinics for patients with medical complexity. These clinics are co-led by Drs. Clarke and M. Barber together with exceptional colleagues in Hematology (Dr. Leslie Skeith), Nephrology (Drs. Kim Cheema and Nicholas Li), Maternal Fetal Medicine (Drs. Nancy Soliman, Anne

Roggensack and Stephanie Cooper) and Obstetrics Internal Medicine (Dr. Kelle Hurd). These clinics promote patient-centered care and foster research collaborations across divisions and departments.

### CLINICAL RESEARCH AT THE LUPUS CENTRE OF EXCELLENCE

The centre offers patients opportunities to join local, national and international observational studies and access novel and emerging therapies through participating in clinical trials. The Southern Alberta Registry for Lupus Erythematosus (STARLET) is an observational research registry and biorepository, which includes over 450 patients with serum samples bio-banked through Dr. May Choi's research laboratory. Drs. Clarke, M. Barber and Skeith have a unique clinic focused on antiphospholipid syndrome (APS) in collaboration with maternal fetal medicine. Patients with this rare and understudied condition can choose to participate in an APS international registry, APS-related trials, and observational studies.

### ADVANCED LUPUS TRAINING

The centre is dedicated to training the next generation of lupus physicians and researchers. Recent trainees include nephrologists and rheumatologists who are now lupus subspecialists working across Canada.

“Being a lupus fellow at UCalgary, I had the privilege of working with Dr. Clarke, Dr. M Barber and other physicians who collaboratively lead multidisciplinary clinics. Training at the Lupus Centre of Excellence, Calgary, greatly enriched my ability to advance patient care at the Lupus Clinic at the Mary Pack Arthritis Centre, Vancouver, and to spark ideas in cutting edge research and collaborative and multidisciplinary care for lupus patients in BC.”

- Dr. Azin Ahrari, Lupus Clinic at the Mary Pack Arthritis Centre, Vancouver

### RESEARCH SPOTLIGHT - DR. MAY CHOI, TRANSLATIONAL RESEARCH PROGRAM AI.Dx

Following in the footsteps of her mentor, Dr. Marvin Fritzler (Professor Emeritus, Director of MitogenDx), Dr. Choi's research is focused on biomarker discovery and validation for the prediction of clinical outcomes in autoimmune rheumatic diseases, and the prevention of autoimmune disease development and disease-related complications. Dr. Choi is a rheumatologist and clinician scientist who started on faculty in 2020 and is a Member of the McCaig Institute for Bone and Joint Health. Although her post-graduate training at the Brigham and Women's Hospital (Boston, MA) was in lupus, she conducts research in many other immune-mediated diseases including autoimmune inflammatory myopathies, systemic sclerosis, rheumatoid arthritis, and vasculitis. Dr. Choi continues to be an active part of MitogenDx as their Associate Director, and she also acts as the Associate Director of Translational Research for the University of Calgary Lupus Centre of Excellence.

Dr. Choi's translational research program AI.DX (Artificial Intelligence and Autoimmune Diagnostics) consists of six streams: 1) Biomarker Discovery, 2) Autoimmune Disease Biobank, 3) Artificial Intelligence in Biomarker Analysis, 4) Knowledge Translation and Patient Advocacy, 5) Clinical Trials, and 6) Indigenous and Global Health. Her team includes several senior lab technologists, coordinators, and undergraduate, graduate, and post-graduate students.

All the biomarker testing and analysis is conducted in her laboratory in the Health Research Innovation Centre. Most projects are done in collaboration with clinicians, research teams, and organizations from around the world. Within the Department of Medicine at the CSM, she collaborates across multiple disciplines including hematology, endocrinology, gastroenterology, respiratory, and nephrology, as well as pediatrics.

Her program has become an important translational research center. By leveraging machine learning to analyze extensive datasets—encompassing biomarkers and patient clinical information, this integration of machine learning with traditional research methods sets it apart. The establishment of a national biobank not only facilitates high-quality sample collection and storage but also supports collaborative research efforts across multiple institutions, making it a valuable resource for advancing scientific knowledge. The program has enhanced its research capabilities by establishing an extensive national and international network of research institution collaboration.

Since 2020, Dr. Choi has been a nominated PI or Co-PI on 26 peer-reviewed grants totaling nearly \$11 million. She received a Canadian Institutes of Health Research project grant in her first year and a Canadian Foundation of Innovation (CFI) John R. Evans Leaders Award in her second year as an early career investigator. This funding enables the team to sustain its operations, pursue ambitious research goals, and continue to make significant advancements in the field.

### THE OVERALL GOALS OF AI.Dx ARE:

- **Improved Early Diagnosis and Management:** By identifying novel biomarkers and developing predictive models, the program aims to enable earlier, more accurate diagnosis of rheumatic diseases.
- **Enhanced Access to Diagnostic Testing:** Implementing remote testing technologies, the program seeks to expand diagnostic access, especially for underserved or remote communities, reducing barriers and ensuring timely care.
- **Better Understanding of Disease Risk and Complications:** Research on biomarkers and disease mechanisms will offer insights associated

with rheumatic diseases, helping predict and mitigate severe outcomes, such as cardiovascular issues for patients living with lupus.

- **More Effective Treatments and Interventions:** Collaborations with research centers and the integration of machine learning aim to develop more effective treatments. Patients will benefit from data-driven advancements in therapy.

### TRANSLATIONAL RESEARCH BY THE NUMBERS

**20**



#### COLLABORATION

20 Independent multi-disciplinary researchers\*

**30,000**



#### BIOBANK SAMPLES

30,000 patient samples from some of the rarest auto immune diseases.

**\$11**



MILLION

#### FUNDING

Almost \$11 Million in funding to date from Tri-Council agencies and donors.



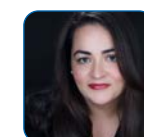
#### LEADING LABORATORY

A leading diagnostic laboratory for autoantibody discovery with the newest biomarker technologies

\* From across rheumatology, endocrinology, respirology, neurology, nephrology, hepatology, cardiology, dermatology and hematology

### THE LUPUS CENTRE OF EXCELLENCE TEAM

This multi-disciplinary team, directed by Dr. Ann Clarke:



Dr. Megan Barber (DoM)



Dr. May Choi (DoM)



Dr. Leslie Skeith (DoM)



Dr. Kim Cheema (DoM)



Dr. Nicholas Li (DoM)



Dr. Kelle Hurd (DoM/Obstetrics)



Dr. Stephanie Cooper (Maternal Fetal Medicine)



Dr. Nancy Soliman (Maternal Fetal Medicine)



Dr. Anne Roggensack (Maternal Fetal Medicine)



Dr. Ann Clarke (DoM)



**AI.DX**  
CHOI LAB  
Artificial Intelligence  
Autoimmune Diagnostics

Top left to bottom right: Farbod Moghaddam, Kevin Zhan, Nathan Barreth, Grace Li, Mansimran Virk, Ashley Clarke, Haiyan Hou, Jean Kawasoe, May Choi, Jen Choi (Photo: Don Molyneux)





First Annual HealthCare Quality Symposium 2024



Dr. Andrew Frank-Wilson presenting at the First Annual HealthCare Quality Symposium 2024

## DEPARTMENT OF MEDICINE HAQ INITIATIVES

### First Annual HealthCare Quality Symposium 2024

The inaugural HealthCare Quality Symposium hosted by HAQ marked a significant milestone in fostering a culture of QI within the DOM. The symposium convened over 30 attendees, including staff, faculty, and residents from all 11 sections/divisions of the department. The seminar was aimed to enhance participants' understanding of QI strategies and methodologies applicable to clinical settings. It provided a platform for sharing insights, successes, and best practices in healthcare quality. The feedback from attendees was overwhelmingly positive highlighting appreciation of engaging topics and practical insights shared by speakers. The symposium's success indicated strong interest and participation in QI initiatives within DOM. The HAQ plans to expand educational offerings and continue fostering a culture of continuous learning and improvement.

### Monthly Speaker Series

For the academic year beginning in September 2024, the HAQ is launching a monthly speaker series aimed at enhancing knowledge and skills in healthcare quality and analytics. Sessions will feature expert speakers covering topics such as methodologies, leadership, research, and data tools.

The series will consist of interactive sessions designed to facilitate learning and exchange of ideas among DOM members. Each session will focus on a specific theme relevant to healthcare quality and analytics. Participants can expect to gain practical insights, expand their knowledge base, and network with peers and experts in the field. The sessions aim to inspire collaboration and foster innovation in healthcare quality within DOM.

The sessions have been approved for CME credits, up to a total of 10 credits for the series.

### Annual Health Analytics and Quality (HAQ) Award

The HAQ Award is an annual competition that offers \$50,000 to support the development of clinically relevant process and outcome measures, focusing on Quality Improvement (QI) projects. This award encourages faculty members to propose innovative QI initiatives that enhance healthcare delivery and patient outcomes. It aims to promote excellence in healthcare quality and analytics by funding projects that contribute to evidence-based practices and patient-centered care. For this year's HAQ award, the call for applications will be announced on the DoM website in the fall. If you're interested in supporting QI projects and initiatives, HAQ provides opportunities to engage with QI methodology, tools, approaches, and education. You can collaborate with HAQ to strengthen QI ideas and projects by leveraging their resources and expertise in healthcare improvement.

# Health Analytics & Quality Improvement in the DOM

Facilitating a culture of QI and patient safety to improve delivery of patient care

## OVERVIEW

The Office of Health Analytics, Quality & Safety within the Department of Medicine, is responsible for facilitating a culture of quality improvement (QI) and patient safety that will improve the delivery of care to patients.

The aim of the Office is to implement clinical structure, process and outcome measurement tools, support education opportunities, and support the design and implementation of QI initiatives in the Department of Medicine (DOM). The goals also align with the Cumming School of Medicine's Strategic Priority area of supporting innovative collaboration and teamwork.

## HAQ TEAM MEMBERS

The HAQ (Health Analytics and Quality) working group within the DOM Office of Health Analytics, Quality & Safety is led by Dr. Ward Flemons, Chair of the committee, and Co-Chair Dr. Mayur Brahmania. Dr. Andrew Frank-Wilson serves as the Health Analytics & Quality Team Lead, bringing expertise in data analytics, while Divya Tyagi contributes as a QI consultant. Additionally, representatives from each section/division of the department are appointed to champion and advance QI initiatives across DOM. This collaborative team is dedicated to enhancing healthcare outcomes through innovative analytics and continuous QI practices.

## COLLABORATE & PARTICIPATE

HAQ invites DOM members to engage actively in upcoming activities and contribute to quality improvement initiatives by submitting project proposals through the Project Intake form located under the Requests for Support section of the HAQ website.

Visit the [departmentofmedicine.com](http://departmentofmedicine.com) website for more information and updates. You'll find the HAQ committee website under physician resources including the form for "Requesting Support".

### Leaders and key DOM representatives



**Dr. Ward Flemons**  
(Chair HAQ Committee)



**Dr. Mayur Brahmania**  
(Co-Chair HAQ Committee)



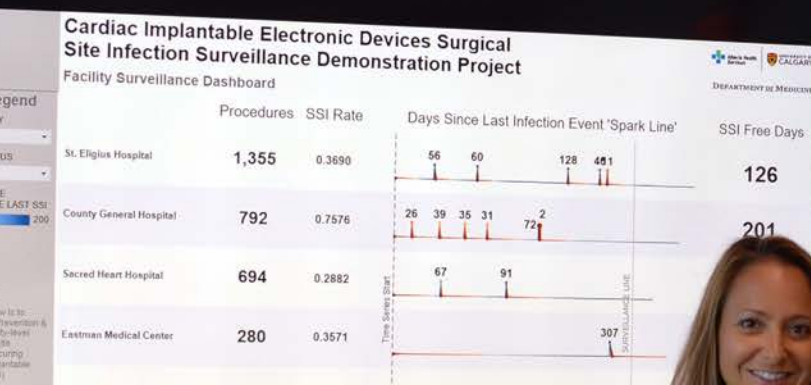
**Dr. Andrew Frank-Wilson**  
(HAQ Team Lead)



**Divya Tyagi**  
(QI Consultant)

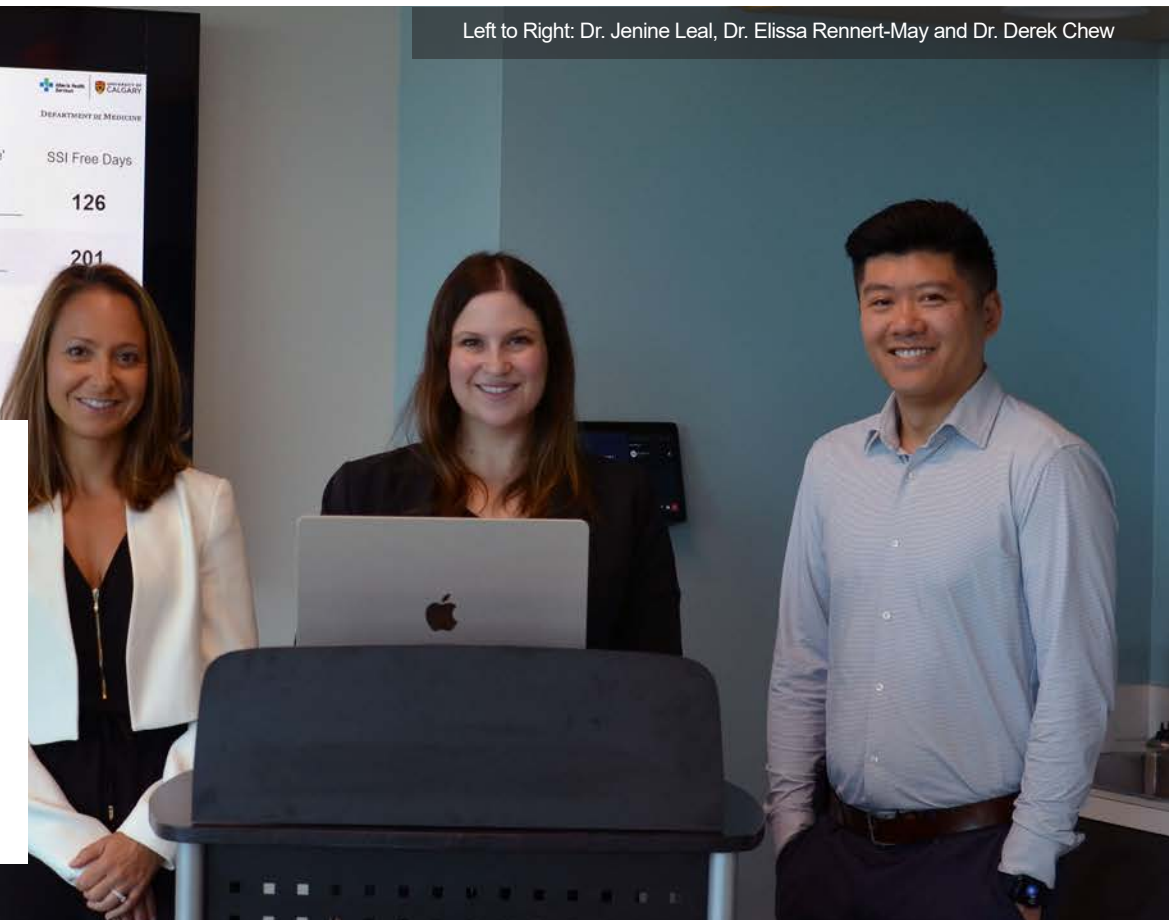
### Division/Section Representatives:

- Dermatology - Dr. Laurie Parsons
- Endocrinology - Dr. Vicky Parkins
- Gastroenterology - Dr. Aziz Shaheen
- GIM - Dr. Michelle Grinman
- Geriatric Medicine - Dr. Erika Dempsey
- Hematology - Dr. Lesley Street
- Infectious Diseases - Dr. Kristen Brown
- Nephrology - Drs. Melissa Schorr & Matt James
- Respiriology - Dr. Rachel Lim
- Rheumatology - Dr. Claire Barber



"Working with the Health Analytics & Quality Improvement Group was a very valuable experience for our research team. They provided excellent support for the project, quick turnaround times, were proactive and encouraged thoughtful discussion and creative solutions."

- **Dr. Elissa Rennert-May** (Recipient of the 6th Annual Clinical Analytics Grant)



Left to Right: Dr. Jenine Leal, Dr. Elissa Rennert-May and Dr. Derek Chew

## PROJECT SPOTLIGHT - DR. ELISSA RENNET MAY (RECIPIENT OF THE 6TH ANNUAL CLINICAL ANALYTICS GRANT)

### CARDIAC IMPLANTABLE ELECTRONIC DEVICE INFECTION SURVEILLANCE USING ADMINISTRATIVE HEALTH DATA: AN ALBERTA PILOT

Our team worked closely with Dr. Elissa Rennert-May (Division of Infectious Diseases) winner of our 6th Annual Clinical Analytics Grant, to automate an administrative data approach to identifying complex surgical site infections following cardiac implantable electronic device (CIED) surgeries using continuous monitoring in a Tableau dashboard.

The ability to track surgical infection rates is essential for monitoring quality of cardiac care. Unfortunately, there is no provincial or nation-wide strategy for comprehensive monitoring and reporting of CIED infection. Reasons for

this include the personnel time and costs associated with traditional infection surveillance methods.

Her team, which includes Dr. Derek Chew (Cardiac Sciences, Community Health Sciences), Dr. Jenine Leal (Community Health Sciences, Microbiology, Immunology and Infectious Diseases), Madelyn Knaub (W21C), Logan Armstrong and Jennifer Ellison (AHS Infection Prevention & Control), sought to assess the feasibility and acceptability of continuous CIED infection surveillance using administrative data in collaboration with traditional Infection Prevention and

Control, healthcare providers that implant the CIEDs, and patient groups. After several engagement sessions with knowledge users, the research team has created a policy document outlining different reporting strategies for surveillance highlighting the use of a Tableau dashboard. This document is currently under review by Infection Prevention and Control groups who will assist in planning next steps for provincial implementation and operationalization.



"Having transplantation represented at a department level is important as the needs of the transplant physicians are drastically different from those of the core organ groups. This redefinition ensures that transplant medicine has a stronger voice in clinical and academic discussions, improving recruitment and retention, and leveraging resources for research and education."

- Dr. Debra Isaac



Photo: Dr. Kelly Burak, Dr. Debra Isaac (Outgoing Transplant Medicine Division head), Dr. Mitesh Thakrar (Incoming Division Head)

# Transplant Medicine: A Story of Transformative Change

## Section/Division of Medical Transplant

The Section/Division of Medical Transplant has undergone remarkable transformations since its inception in 2021, making significant strides in improving clinical processes, enhancing educational frameworks, focusing on physician recruitment, expanding clinical programs, and redefining the perception of transplant medicine.

### IMPROVED CLINICAL PROCESSES & POLICIES



#### Pancreas Transplantation

A significant achievement has been to formalize the pancreatic transplant program. While the number of pancreatic transplants is not large, whole-pancreas and combined kidney/pancreas transplants have been performed in Calgary since 1998. Spearheaded by Dr. Jason Bau (Transplant Nephrology) and Dr. Laura Hinz (Endocrinology), a formal partnership between transplant nephrology and endocrinology has been developed to streamline the referral, evaluation, and follow-up processes for these patients. This partnership is crucial, given the intersection of diabetes and kidney transplantation. Dr. Bau is primarily appointed within the Division of Transplant Medicine, and Dr. Hinz is primarily appointed in endocrinology with a secondary appointment in Transplant Medicine.



#### Living Donor Renal Transplantation

Led by Transplant Nephrologists Dr. Ngan Lam and Dr. Wenji Wang, the Division of Transplant Medicine has been working to optimize the management of living renal organ donors. This initiative encompasses the entire donor journey, from expressing interest to post-donation follow-ups and support. An upcoming project aimed at reducing hospital stay lengths, pre-operative and post-donation, for living donors will also address improving communication and support throughout the journey.



#### Transplant Volumes in all groups have increase significantly

Throughout all solid organ transplant groups transplant volumes have skyrocketed in the last five years, resulting in significant escalation of the volume of clinical care. Patient outcomes have steadily improved, and patients are living longer. There has also been an increase in patient acuity and co-morbidities, meaning more complexity pre and post transplantation. While outcomes are excellent, everyone is now working significantly harder with the same resources and this volume will be difficult to sustain in the current model. Work is being done to identify how clinics and resources can be optimized including: patient flow, re-allocation of tasks to the appropriate personnel, the introduction of nurse practitioners as well as evaluation and optimization of all processes that effect pre- and post- transplant patients.

### EDUCATIONAL ADVANCEMENTS

Within Post Graduate Medical Education (PGME) a transplant medicine selective has been introduced within the Internal Medicine Residency Program providing opportunities for 2-3 residents per academic year to gain specialized experience in the area of Transplant Medicine as part of their elective time. This year was the second year of this program so still relatively new and will continue to be optimized as feedback is received.

The division, is currently working with the Royal College of Physicians and Surgeons of Canada (RCPSC) to secure Area of Focused Competence (AFC) accreditation for training of transplant fellows (led by Dr. Jason Bau, Dr. Kevin McLaughlin, and Dr. Lea Harper). Certification through the American Society of Transplantation is also in progress for renal transplant which will encompass renal transplant medicine and transplant surgery fellows. The cardiac transplant group maintains an Advanced Heart Failure Fellowship program, encompassing cardiac transplantation and mechanical circulatory support, led by Dr. Kristin Lyons.

Continuing Medical Education (CME) has been strengthened, with Dr. Kelly Burak formally establishing accredited multidisciplinary transplant rounds. These monthly sessions cover a range of cross-sectional, cross-transplant- related topics for example: palliative care, liver disease in pre- and post-transplant patients, transplant-related renal dysfunction, infectious diseases, and bone disease management after transplantation.

### FOCUS ON PHYSICIAN RECRUITMENT

Recent recruitment to the Transplant Medicine division include Drs. Jason Bau, Emily Chan and Carol Wang for Renal Transplant; Dr. Mayur Brahmania for Liver Transplant; Drs Lian Szabo and Nick Romatowski for Pulmonary and Dr. Brennan Ballantyne for Heart.

An ongoing priority will be recruitment of a formal transplant infectious disease (ID) physician to be part of both the ID and Transplant Medicine Divisions. This would be an important addition given the high risk of severe infections in transplant patients. For example: approximately 25% of lung transplant recipients die of an infection; common infections are more severe and uncommon infections are the norm. Not only are different types of infections common in immunocompromised patients, but duration and intensity of therapies differ, specific to the solid organ transplant recipient.

A Clinical ARP for the 4 solid-organ transplant groups is currently continuing through the application process, although on pause due to AMA/AHS negotiations. A Clinical ARP has also been developed which focuses on allied specialists such as endocrinologists, dermatologists, infectious disease experts, and psychologists who provide transplant-specific patient care. The Clinical ARP for allied transplant physicians is currently going through approval stages and is expected to be in place before the end of the year. These Clinical ARPs will serve as an important step in supporting recruitment and retention of transplant specialists.

### RESEARCH SPOTLIGHT: TRANSPLANT WELLNESS PROGRAM

The Transplant Wellness Program (TWP), launched in 2023, is an exercise-based behavior change intervention designed to improve the well-being of solid organ transplant patients. It aims to enhance transplant candidacy for potential donors, expanding access to life-saving therapy, while improving post-transplant outcomes and reducing complications related to frailty and comorbidities.

The program includes a 12-week Exercise Intervention (EI) with wellness behavior support, followed by maintenance programming, delivered pre- or post-transplant. The TWP tailors programs to meet participants' physical and psychosocial needs before and after surgery. Maintenance resources include group exercise classes, wellness behavior support, and educational webinars. The RE-AIM framework evaluates EI implementation, focusing on reach, effectiveness, adoption, implementation, and maintenance at both individual and system levels. Feedback from participants and support persons is gathered via surveys and interviews to build evidence for embedding standardized wellness resources into transplant

care. EI effectiveness outcomes include functional fitness outcomes (frailty, musculoskeletal function) and patient-reported outcomes on quality of life, physical activity, sleep, nutrition, and mental health (anxiety and depression). Health economic evaluations assess the cost-utility of integrating wellness into the clinical care pathway.

Between November 2023 and May 2024 the TWP enrolled 54 transplant patients (39 kidney, 15 liver). Ten participants have completed the EI, and 5 continue in maintenance classes. Participant feedback has been positive, highlighting the need for wellness within the transplant clinical care pathway. The TWP will continue to implement and collect data to inform best wellness practices for Southern Alberta transplant populations. PhD student, J. Sim, will study implementation markers and behavior change components to facilitate continued effectiveness. Summer student, A. Exall, will develop support person wellness resources through a participant-orientated research approach. Future plans for 2024-2025 include adapting the TWP for lung transplant patients.



Transplant Wellness Leadership: Stefan Mustata MD (Medical Director), Debra Isaac MD (Senior Advisor), Nicole Culos-Reed, PhD (Behaviour Change Expert), Vanessa Bahry, BKin, CEP (Kinesiologist), Maneka Perinpanayagam, PhD, PMP (Senior Research Program Manager), Kelly Burak, MD, MSc (Scientific Director), Photo credit: Julia Daun photography.

### BROADER INFLUENCE ON TRANSPLANT MEDICINE AS A WHOLE

A transformative shift in how transplant medicine is perceived has been a key outcome of the division's efforts. The emphasis on transplantation as a medical condition with a surgical component (and not just transplant surgery itself) has reshaped the narrative across the country, influencing other institutions to follow our innovative example. The University of Alberta has now formed their own Section/Division of Medical Transplant.

Having transplantation represented at a department level is important as the needs of the transplant physicians are drastically different from those of the core organ groups. This redefinition ensures that transplant medicine has a stronger voice in clinical and academic discussions, improving recruitment and retention, and leveraging resources for research and education.

In conclusion, the Section/Division of Medical Transplant has achieved transformative change through improved clinical processes, educational advancements, strategic physician recruitment, expanded clinical programs, and broader influence on the perception of transplant medicine. These accomplishments have set a robust foundation for continued growth and excellence in transplant care through the division.





Dr. Zahra Goodarzi (Department of Medicine, Geriatrics), Dr. Margaret McGillivray (Department of Emergency Medicine)



Photo: Stoney Health Services Centre Multidisciplinary Team with Dr. Kelle Hurd, Department of Medicine (Centre/front)

"Working alongside patients and other care providers in Siksika over the course of the past year has resulted in immense personal and professional growth. I am learning how to provide care in a way that meets the unique needs of the community while continuously reflecting on my role in decolonizing healthcare, how to turn allyship into tangible actions, and how my colleagues and I can do better."

- Dr. Angela Schneider Trainee (GIM Longitudinal Fellowship)

# Geriatric Emergency Medicine Task Force

## Improving the quality of care for older adults in the Emergency Department

In 2019, the emergency department started a Geriatric Emergency Medicine Task Force, which Dr. Zahra Goodarzi now co-leads with Dr. Margaret McGillivray (Department of Emergency Medicine) for the Calgary Zone.

### A MULTIDISCIPLINARY TEAM

This is a multidisciplinary, multisite collaborative team focused on identifying, studying and developing tools to address concerns of older adults in the Emergency Department (ED). The primary goal is to improve quality of care, access to care, and implement an increased amount of evidenced-based geriatric approaches in the ED. The infographic represents on of the educational activities.

The team is comprised of a diverse group of professionals including bedside nursing (e.g., RNs), patient care managers, department managers, occupational therapists, clinical nurse specialists, clinical nurse educators, ED physicians, geriatricians, and pharmacists.

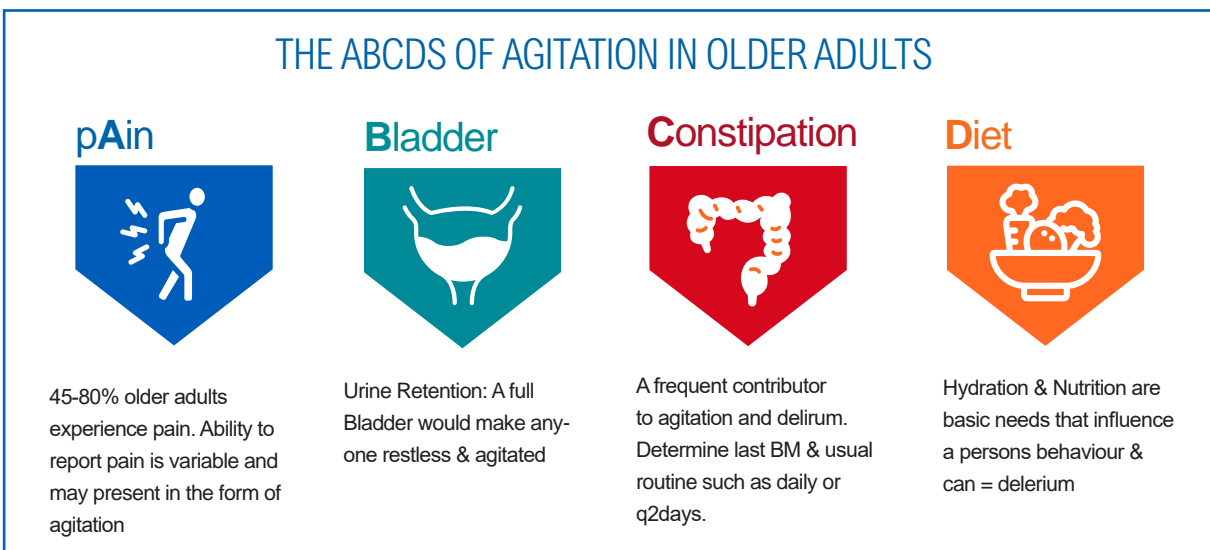
Dr. Goodarzi plays a pivotal role in this team by providing leadership for geriatric medicine initiatives, offering content expertise and knowledge, guiding research methodological expertise, advocating for improved care, and fostering collaboration within the team. As part of the core team, Dr. Goodarzi is actively involved in planning

initiatives, shaping approaches to projects and setting future goals. The team is engaged in several ongoing quality improvement initiatives and research projects, focusing on areas such as delirium, agitation, diet status, exercise in the ED, and improving access to geriatric services from the ED.

### RESEARCH FOCUS

This work has led to research that integrates the EMS team, ED, and protective services to examine restraint

use across the zone and its impact on patient and system outcomes. All teams are committed to improving their processes and approaches to care. The team was recently awarded a CIHR grant to conduct this research, ranking #1 in its panel, and receiving the CIHR Institute of Aging Prize: Yves Joannette Award of Excellence in Research in Aging. This award is granted to the highest-ranking funded project in the CIHR Fall Project Grant that aligns with the Institute of Aging's goals.



Providing culturally safe care to Indigenous communities requires respecting Indigenous ways of knowing and healing as well as having a deep understanding of the impacts of colonization, the Indian hospital system, and the residential school system on health inequities.

"Working in partnership with communities, meeting patients where they are at in life, and focusing on rebuilding trust in a system that many Indigenous patients find unsafe is my goal."

- Dr. Kelle Hurd (Vice Chair, Indigenous Health)

The role of Vice Chair of Indigenous Health was established in 2018, with Dr. Hurd taking on the role 2 years ago. Dr. Hurd practices in both rural and urban Indigenous communities, she is a member of the Metis Nation of Alberta and has a passion for delivering and educating about culturally safe medical care. She serves on numerous committees, including the PGME Anti-Racism Task Force as Indigenous Health curriculum lead, and partners with the Indigenous Local and Global Health Office to develop curriculum content for all 60 residency programs in the CSM. She has been involved with the National Consortium for Indigenous Medical Education and the RCPSC Indigenous Health Expert Working Group.

### CLINICAL SERVICES THROUGHOUT INDIGENOUS COMMUNITIES

The Stoney Health Services Centre (SHS) located at Mini Thni (formerly Morley, AB) provides healthcare services to members of Stoney Nakoda Nation and partners with the DOM as a teaching and clinical site. DOM members practicing at SHS include Dr. Dianne Mosher (Rheumatology) and Dr. Michelle Ramien (Dermatology). In 2023, Dr. Hurd (GIM) re-established an Internal Medicine clinic providing both General and Obstetric Internal Medicine consultations as well as telehealth consults for primary care providers practicing at the clinic.

The Siksika Health Centre provides health care services to members from the Blackfoot Confederacy and also partners with the DOM as both a teaching site and clinical services location. DOM members practicing in Siksika include former VC of Indigenous Health, Dr. Cheryl Barnabe (Rheumatology), Dr. Paul davis (GIM), Dr. Jori Hardin (Dermatology), Ellen Novak (Nurse Practitioner, Nephrology) and Dr. Erika Dempsey (Geriatrics).

In addition to these two clinics, both Dr. Luke Rannelli (GIM) and Dr. Cheryl Barnabe provide consultative services at the Tsuut'ina Health Centre. Multiple GIM physicians (Drs. Kelle Hurd, Kelly Zarnke, Kate Colizza, Luke Rannelli) and Dr. Stephanie Garner (Rheumatology) also provide consultative services at the Elbow River Healing Lodge in downtown Calgary.

### GIM LONGITUDINAL FELLOWSHIP

The GIM Longitudinal Fellowship Elective was established in 2023 by Drs. Kelle Hurd and Paul Davis. Early in her career, Dr. Hurd covered the GIM clinic at Siksika and quickly recognized gaps in her training required to provide quality care to Indigenous patients living in remote communities. She has now established a formal fellowship experience, supervised by Dr. Davis and in partnership with the Siksika Health Centre, which aims to create training experiences that will better equip a medical resident to provide excellent and culturally safe care. Dr. Angela Schneider, PGY5 GIM resident, is the first trainee to come through the program [See Header Quote]. The fellowship requires attending 80% of clinics, completion of the Coursera Indigenous Health Canada Course and AHS Cultural Sensitivity Training, as well as a letter of intent outlining their experience and interest in Indigenous Health and rural medicine.

### CURRICULUM FOR DOM PROGRAMS

Indigenous Health is a core part of the IMRP academic curriculum which includes education around the history and legacy of residential schools and the impact of colonization on health inequities, principles of trauma informed care, respect for Indigenous knowledge, science, and wellness practices, all towards the goal of providing culturally safe care.





"Large-scale efforts like this require collaboration.

We have a fabulous team of physicians and nurses who work together city-wide! "

- Dr. Steve Heitman (Division/ Section Head of Gastroenterology & Hepatology)

Dr. Matthew Mazurek, Medical Director, Calgary Zone GI-CAT (left) with members of the GI Triage (CAT) Team

DOM Leadership Retreat Appreciation Workshop and Brainstorming Session

Dr. Bhavneet Kahlon, Nephrology and Division Head Dr. Jennifer MacRae

# GI CAT: Refining the Single Point of Access System

## National Leaders in Triage

# Nurturing a culture of appreciation in the DOM

## Appreciation leads to more connection and satisfaction at work

The GI Triage (CAT) team successfully managed a significant backlog of referrals, reducing them to target numbers through a collaborative and holistic team approach.



In January 2023, following the launch of Connect Care at FMC, the GI CAT team faced a backlog of approximately 3,700 referrals waiting to be triaged. Under normal circumstances, a manageable number would be closer to 1,000, with an ideal goal of 600-800 referrals, given the capacity to triage around 100 referrals per day under optimal conditions.

The GI Triage CAT team, consisting of highly trained nurses, typically manages the process using co-designed, program-specific triage algorithms with only around 20% of more complex cases requiring physician input. With the backlog growing to 3,700, it became clear that the standard triage team would need additional support to catch up, particularly given the efficiency constraints posed by the new Connect Care system.

### REDUCING THE BACKLOG WITH A PHYSICIAN "TRIAGE BLITZ"

Recognizing the urgency of the situation, GI physicians were brought in to assist with a "Triage Blitz," where each physician was responsible for triaging 50 referrals. This was a critical step in bringing the backlog under control.

Although referrals continued to grow at a rate of about 50 per day, by the end of the first month the backlog had been reduced to 2,500 with the addition of over 50 physicians to the team. This intervention provided the RNs some breathing room to train and recruit additional staff that allowed the triage team to manage the remaining backlog over the next eight months.

### RECOVERY FUNDING PIVOTAL IN REACHING TARGET LEVELS

Recovery funding from AHS was secured to address backlogged procedures, enabling the addition of triage staff (2.6 RN FTE and 1.0 Admin FTE).

The Calgary Zone was tasked with completing 1,771 recovery procedures during fiscal 2023/24 year, 95% of these were completed between September 2023 and

February 2024, with the remainder finished by the end of March 2024. Thanks to the team's dedication, most of the procedures were completed after hours, allowing the work to be completed ahead of schedule. Currently, the number of outstanding referrals has stabilized within the 500-700 targeted goal on a monthly basis.

### LOOKING AHEAD

The GI CAT team is preparing to take on the triage of hepatology referrals. This will not only free up the hepatologists' time for more critical tasks but will also ensure that all referrals are handled consistently within the same framework, reducing the variation in triage methods between different hepatologists.

Finally, recruiting additional physicians to join CAT has historically been a challenge, but over the past two-three years, the proportion of physicians participating has risen from around 65% to over 95%. This shift means the majority of referrals will now be managed uniformly, improving accessibility, appropriateness and effectiveness of care.

Over the last year the leadership team has been nurturing a culture of appreciation across the DoM.

### WHEN WAS THE LAST TIME YOU THANKED A COLLEAGUE?

Although appreciation is important for well-being, many of us don't spend time thinking about it. Appreciation is an acknowledgment of someone's inherent worth. When we feel appreciated, valued for who we are as people, we feel connected and are more satisfied with our jobs. Expressions of appreciation result in mutual benefit for both the recipient and the person delivering the message of appreciation.

Not all of us are like Ted Lasso and it isn't second nature to regularly say "I appreciate you!" If you have not built a practice of appreciation, you can feel awkward or concerned about saying the wrong thing. There is a phenomenon known as the "Illusion of Transparency" where we overestimate the degree to which others can perceive what we are thinking. This phenomenon can result in us thinking people feel appreciated when we haven't actually taken the time to explicitly express our appreciation. Nurturing a culture of appreciation requires intentionality and support and we are building our appreciation skills together as a community of colleagues.

### CONTRIBUTING TO THE DOM'S CORE:

**VALUES:** Community of Colleagues, Citizenship in Action, Focusing on Wellness

**VISION:** Optimal healthcare and wellness for all

**STRATEGIC PLAN PRIORITY #8:** Promote a culture of active and universal citizenship within the DOM.

As part of the 2024 DOM Leadership Retreat in March 2024, leaders from across the department participated in an appreciation workshop facilitated by Dr. Shannon Ruzycki and Dr. Chandra Thomas. Participants were presented with the evidence supporting appreciation and had the opportunity to practice different approaches to expressing appreciation. Leaders were encouraged to try the different approaches and reach out for support.

Across the DOM, written messages of appreciation have been sent on cards and in emails. Meetings and retreats have included time for verbal expressions of appreciation. Medical Grand Rounds also includes a

segment during wrap up each week highlighting an Unsung Hero, where colleagues can be appreciated in a larger setting as well as encouraged to nominate their colleagues.

### VISION FOR THE FUTURE

Looking to the future, we aspire to have everyone in the department regularly receive and express appreciation. We hope the discomfort and awkwardness in expressing appreciation diminishes through ongoing support and building our appreciation skills.

"I have to admit that when the activity was described I was worried it would be really awkward and cheesy. I think often we appreciate a lot of things about our colleagues but never actually verbalize it. I'm happy to report it was actually very heartwarming and made it apparent how much mutual respect and appreciation we have for each other."

- Dr. Bhavneet Kahlon





## Total research revenue

2023-24: \$28,733,465  
2022-23: \$29,191,606  
2021-22: \$28,895,274

Total research revenue in Department of Medicine was \$28.73 Million in 2023-24. (See breakdown of statistics for an explanation of the methodology used for this year, previous years using the same methodology have been provided for comparison).

# 28.73

# Million

Supporting 337 projects across the Department of Medicine for 2023-24.

***“As a department, we are leading through care delivery, discovery, innovation, education and knowledge implementation. We are focused on equitably advancing health and wellness for Albertans and Canadians”***

**Dr. Jayna Holroyd-Leduc**

Researchers within the department, working across the Cumming School of Medicine research institutes, are having broad impact. Our department members continue to lead an array of innovative and impactful research programs.

## PUBLICATIONS



1167  
in 2020-21



1063  
in 2021-22



971  
in 2022-23

## PUBLICATIONS

971  
publications

2023-24 ↓8.5%

2023-24	971
2022-23	1063
2021-22	1167

Department members produced a total of 971 unique publications in 2023-24.

Publications numbers have used a new dashboard pulling from Scopus & Scival API for this year (data accessed Oct 9, 2024), previous years now pulled off the same dashboard for comparison, may differ from past report).

16.02 publications  
per RE

Primary department members produced 16.02 publications per Research Equivalent (RE) in 2023-24 based on a 60.6 FTE in Research.

266 members  
published in 2023

46.05k citations

Citations made in 2024 of all publications linked to the current DOM members published in previous years/before data captured on Oct 9, 2024.



478

MEMBERS

2023-24	478
2022-23	422
2021-22	430

The Department of Medicine consisted of 478 primary members in 2023-24

83

FULL-TIME ACADEMIC (GFT) MEMBERS

2024-25	83
2022-23	77
2021-22	76

The department had 83 primary members with Full-Time Academic (GFT) appointments.

236

AMHSP MEMBERS (INCLUDING CARDIOLOGY)

2023-24	236
2022-23	233
2021-22	230

236 department members, including both primary department members and cross-appointed members from the Division of Cardiology within the Department of Cardiac Sciences, were part of the Internal Medicine Academic Medicine Health Services Program (AMHSP) Plan.

108

ALBERTA HEALTH SERVICES LEADERSHIP ROLES¹

14 AHS Strategic Clinical Network (SCN) Leadership Roles  
11 AHS Provincial Leadership Roles (Non-SCN)  
83 AHS Calgary Zone Leadership Roles

Outside of the Department of Medicine, department members held a total of 108 leadership roles (38.9 FTE) within Alberta Health Services in 2023-24, including 2 SCN Senior Medical Directors an SCN Scientific Director. ¹Leadership data based on a snapshot in time in the 2023-2024 year

(AMHSP Data Includes Cardiology leadership roles)

80

UNIVERSITY OF CALGARY LEADERSHIP ROLES¹

8 CSM Leadership Roles in the Office of the Dean  
59 CSM UME/PGME/CME&PD Leadership Roles (outside the Dean's Office)  
8 Leadership Roles in CSM Research Institutes or other Departments  
5 University of Calgary Leadership Roles (outside the CSM)

Outside of the Department of Medicine, department members held a total of 80 Leadership roles (18.01 FTE) within the Cumming School of Medicine and UCalgary 2023-24, ¹Leadership data based on a snapshot in time in the 2023-2024 year

RESEARCH REVENUE

\$474,149

per RE

2022-23

2023-24:	\$474,149
2022-23:	\$520,661
2021-22:	\$449,088*

The Total Research Revenue per Research Equivalent (RE) in the Department of Medicine was \$474,149 in 2023-24.

\*years 2021-22 calculated using a different methodology to pull research revenues due to a rebuild of system processes and new analytics team - included for reference only but not comparison.

2023-24

\$20.33 million in Non-Tri Agency Revenue

2023-24

\$172.9k in NSERC and SSHRC Funding

2023-24

\$5.67million in CIHR revenue

2023-24	↓15.28%
2023-24:	\$5,667,714
2022-23:	\$6,689,690
2021-22:	\$8,015,350

\*Data for the previous two years was pulled at then time of Annual Reporting last year.

AMHSP PHYSICIAN RESEARCH REVENUE

DOM AMHSP 36.95% Research Revenue within the South Sector AMHSP

Department of Medicine: \$27.56 Million

All South Sector Clinical AMHSP Departments: \$74.57 million. Research Revenue from the Department of Medicine accounted for 36.95% of the revenue for all Clinical AMHSP Departments in the South Sector AMHSP.

2023-24

\$27.56 million

2023-24

\$74.57 million

2023-24

\$2.56 million Other Tri-Agency

External sponsors that use tri-agency funds (original source) sponsoring UCalgary projects.

CLINICAL STATS

8.90 days in hospital

2023-24 ↓1.44%

2023-24	8.90
2022-23	9.03
2021-22	8.66

The average hospital length of stay (LOS) in the Department of Medicine was 8.90 an decrease of 1.44% from 2022-23.

2023-24

32,012 inpatient consults

2023-24	↑3.41 %
2023-24	32,012
2022-23	30,955
2021-22	35,569

Department Members provided a total of 32,012 inpatient consults in Calgary hospitals in 2023-24, a increase of 3.41% from 2022-23.

17,246 inpatients admitted

2023-24 ↑11.94%

2023-24	17,246
2022-23	15,406
2021-22	14,452

Department Members were the admitting physicians for 17,246 inpatients in the four Calgary Adult Hospitals in 2023-24, an increase of 6.8% from 2022-23.

2023-24

20,446 inpatients attended

2023-24	↑15.06%
2023-24	20,446
2022-23	17,770
2021-22	14,701

Department Members were the attending physicians for 20,446 inpatients in the four Calgary Adult Hospitals in 2023-24, an increase of 15.06% from 2022-23.

53,933 CAT outpatient clinic referrals

2023-24 ↑13.23%

2023-24	53,933
2022-23	47,632
2021-22	47,915

Central Access & Triage (CAT) for Endocrinology, Gastroenterology, General Internal Medicine, Hematology, Respiratory Medicine, and Rheumatology received a total of 53,933 outpatient referrals, an increase of 13.23 % from 2022-23.

2023-24

11,720 Specialist Link Calls\*

2023-24	11,720
2022-23	11,833

The number of specialist link calls made to Department of Medicine divisions and programs in 2023-24.

\*Includes our 11 Divisions as well as Clinical Pharmacology, COVID, OB Internal Medicine, Thrombosis and Wound Care clinics.

4,239 Seniors Health outpatient clinic referrals

2023-24 ↑13.49%

2023-24	4,239
2022-23	3,735
2021-22	3,565

Geriatric Medicine received a total of 4,239 outpatient referrals from Seniors Health One-line in 2023-24 an increase of 13.49% from 2022-23.

EDUCATION

183 Residents

In 2023-24, there were a total of 183 Residents in the Department's Core and Subspecialty Residency Training Programs, with 113 Residents in our core IMRP Program (PGY1 – PGY4) and 70 Residents in our ten Subspecialty Training Programs (PGY4 – PGY6).



# Dermatology

The Section of Dermatology is a diverse team of 34 dermatologists dedicated to patient-centered care. Our physician researchers, educators, and clinicians are internationally recognized leaders in inflammatory skin disorders, skin cancer, and wound healing. We provide exceptional clinical care in both hospital and community settings, including outreach clinics and rural areas. Our members are committed to advancing dermatological science through cutting-edge research and are dedicated to training the next generation of dermatologists. Our program emphasizes not only clinical excellence but fosters a culture of equity, diversity, and inclusion, ensuring that our graduates are equipped to provide compassionate and culturally competent care to all patients.



Dr. Régine Mydlarski

Dr. Régine Mydlarski is the Division Head of Dermatology and an Associate Professor in the Department of Medicine. She founded the Dermatology Residency Program at the University of Calgary and chairs the Specialty Committee in Dermatology for the Royal College of Physicians and Surgeons of Canada. In recognition of her contributions to Canadian Dermatology, she received the 2023 Canadian Dermatology Association's Award of Merit. Dr. Mydlarski leads the internationally recognized Precision Medicine and Translational Research Program in Dermatology, focusing on autoimmune blistering disorders, immunodermatology, transplant dermatology, and the skin microbiome. She is proud to collaborate with the diverse and accomplished Section of Dermatology faculty members.

## CLINICAL:

The divisions specialized clinics offer a multidisciplinary approach to care for people of all ages, supporting patients with immunobullous disease, connective tissue disease, contact dermatitis, solid organ transplants, wounds, vulvar disease, high-risk pigmented lesions, nonmelanoma and melanoma skin cancers, and cutaneous lymphomas. Our members also provide outreach clinics at the Siksika Nation Health and Wellness Center, the Stoney Community Health Centre (Morley, Alberta), and the Alex Community Health Center. Additionally, virtual care clinics support rural communities, ensuring that patients in remote areas have access to specialized dermatologic care.

Two recent initiatives represent significant advancements in our commitment to delivering specialized and timely care to our patients. Firstly, the expansion of the Rapid Access Oncodermatology service, led by Dr. Jori Hardin, ensures that cancer patients receive prompt, specialized care for a broad range of dermatologic needs. Secondly, the establishment of the Scleroderma and Fibrosing Disorders Clinic, led by Drs. Jason Lee and Régine Mydlarski,

integrates rheumatology and dermatology expertise to provide a comprehensive approach to patients with systemic sclerosis, morphea, eosinophilic fasciitis, and other complex fibrosing disorders.

## ADMINISTRATIVE:

The section is an engaged and dynamic community, with faculty members holding various administrative roles. In this academic period, Dr. Michele Ramien served as President of the Canadian Dermatology Association, where she championed engagement, accessibility, and the integration of EDI principles. Dr. Kirk Barber, Editor-in-Chief of the Journal of Cutaneous Medicine and Surgery, also held the position of Vice-President of the Camp Liberté Society. Additionally, Dr. Régine Mydlarski chaired the Royal College of Physicians and Surgeons of Canada (RCPSC) Specialty Committee in Dermatology, a role soon to be assumed by Dr. Laurie Parsons, the current Vice-Chair. Dr. Mydlarski also served as incoming Chair for the 4th biennial Women in Dermatology Leadership conference. Lastly, Dr. Susan Poelman held the position of Past President of the Canadian Hidradenitis Suppurative Foundation.

## RESEARCH:

The division includes a diverse and accomplished group of researchers across all career stages, excelling in clinical and basic science research.

In 2023-2024, our members conducted over 60 clinical trials, making Calgary home to the largest clinical trial group in Western Canada. Key research sites include: Beacon Dermatology, Calgary Dermatology, Northwest Dermatology and Laser Centre, Rejuvenation Dermatology, Richmond Road Diagnostic and Treatment Centre (RRDTC), and Skin Health & Wellness Centre. Generous support from the Canadian Institutes of Health Research (CIHR), Canadian Dermatology Foundation (CDF), Susanne V. Gibson Research Fund, Office of Health and Medical Education, and industry partners has been instrumental in our success. These grants have enabled our members to co-develop the Skin Investigation Network of Canada (SKIN Canada), explore new treatments for skin cancer prevention, study the skin microbiome in transplant recipients, address implicit bias in dermatology, and improve medical education on skin of color.

## EDUCATION:

At UME level, Dr. Jori Hardin made substantial contributions to the RIME curriculum, enhancing the teaching of skin of color and Indigenous dermatology. In addition to being the Competence by Design (CBD) chair, she prepared to take on the role of Program Director, bringing fresh innovations and vision to the position. She follows the exemplary leadership of Dr. Lynne Robertson, whose dedication has set a high standard for the Dermatology Residency Program's success. Our highly sought-after 5-year residency program has continued to thrive since the launch of CBD in July 2022. Dr. Hardin also co-chaired the Dermatology Residents Innovation & Vision in Education (DRIVE) program, which plays a crucial role in supporting residents' success at the Royal College examinations.

Additionally, Dr. Kirk Barber led the Journal of Cutaneous Medicine and Surgery podcasts, further contributing to the field's educational resources.

## KEY CHALLENGES:

The Section of Dermatology, like many others in the healthcare sector, has encountered several challenges. Our members are actively addressing the complexities of implementing ConnectCare while managing the significant changes in community lab service providers. It has been crucial to maintain continuity of care during a time of system-wide adjustments. Additionally, we are working through the ongoing shortage of primary care physicians and the critical demand for more nursing support, particularly case managers for our patients with complex dermatological needs. Further, we have been supporting patients who face difficulties in accessing medications prescribed for "off-label" indications, which adds further complexity to our patient care efforts. In the surgical arena, Mohs micrographic surgery has been impacted by a shortage of laboratory technical expertise. Despite these challenges, our Section remains steadfast in its commitment to delivering high-quality care and adapting to the evolving landscape of healthcare.

## KEY SUCCESSSES:

The division achieved significant milestones, including the expansion of specialized services such as the Rapid Access Oncodermatology service and the establishment of the Scleroderma and Fibrosing Disorders Clinic. The Section operates numerous specialty clinics, supports outreach services to communities such as the Siksika Nation and Stoney Community Health Centre, and provides virtual care to remote regions. The strength of the Dermatology Residency Program continues to be a highlight, offering comprehensive training and fostering the next generation of specialists. The Section also hosted a highly successful 16th Annual Dermatology Day for Family Physicians, attracting over 200 attendees, enhancing collaboration and education across disciplines. The Section maintained its leadership in research, conducting over 60 clinical trials, making Calgary a hub for dermatological research in Western Canada. Our members' commitment to equity, diversity, and inclusion (EDI) was further evident in various administrative and educational roles.

## ARTIFICIAL INTELLIGENCE-DRIVEN PERSONALIZED SKINCARE

All Skin is a digital health platform designed to improve access to personalized, unbiased, and evidence-based skincare information. In a market flooded with disinformation and poorly supported products, it helps users build effective skincare routines tailored to their individual needs by analyzing products and ingredients from a dermatologic perspective. For instance, the All Skin app can help those with mild acne build an effective over-the-counter routine, guide those with eczema toward non-irritating and hydrating products, or assist people with known contact allergens avoid culprit ingredients and cross reactors.

The platform employs a data-driven approach, utilizing a comprehensive database of over 22,000 products and 16,000 ingredients, cross-referenced with over 300 citations from peer-reviewed research, clinical practice guidelines, expert consensus from dermatologic societies, and FDA/Health Canada cosmetic regulations. This ensures users

receive scientifically supported recommendations for managing various skin concerns.

All Skin is led by dermatologist-scientists, Dr. Ryan Lewinson, MD, PhD, FRCP and Dr. Isabelle Vallerand, MD, PhD, FRCP. Founded during the COVID-19 pandemic, the team was mentored by Dr. Laurie Parsons with an initial focus on remote patch testing systems for contact dermatitis. The team subsequently developed a Health Canada-approved patch test system, laying the foundation for broader skincare applications.

Supported by funding from UCeel, HaloHealth, Alberta Innovates, and the National Research Council, the platform is committed to advancing technology with scientific rigour and collaboration with physician stakeholders. It provides a valuable resource for those seeking informed and effective skincare solutions, free from brand or marketing biases.

## INNOVATIONS IN DERMATOLOGY: HIGHLIGHTS FROM THE 5TH ANNUAL SKIN RESEARCH DAY

The division hosted the 5th Annual Skin Research Day, held on November 16, 2023, at the Red & White Club in Calgary, Alberta. This was a significant event that highlighted cutting-edge research and collaboration within the field of dermatology which brought together clinicians, researchers, residents, fellows and graduate students to share their latest findings and foster a sense of community within the dermatology research field.

The first keynote speaker, Dr. Mark Kirchhof, Head of Dermatology at the University of Ottawa, delivered an insightful presentation on the emerging role of cannabis in dermatology, exploring its applications from bedside care to laboratory research. Throughout the day, participants had the opportunity to engage in a series of oral presentations that covered a wide range of topics, from skin inflammation and immune response to innovative case studies in dermatology. Noteworthy trainee talks included Dr. Bryan Ma's (PGY-2) exploration of the epidemiology and healthcare expenditure for skin disease in Alberta's emergency departments, and Dr. Isabelle Vallerand's (PGY-4) investigation into the prevalence of North American Contact Dermatitis Group (NACDG)

contact allergens in topical prescription therapies. Dr. Matthew Stephens (fellow) presented his innovative work on targeting the CLEC4E receptor for psoriasis treatment, while Alexander Pun (MSc) examined how nociceptive sensory input affects fibroblast and immune cell responses in skin wound healing. These presentations highlighted the diverse and impactful research emerging from the dermatology community.

A highlight of the event was the second keynote address by Dr. Nicole Johnson, a Clinical Associate Professor at UCalgary, who discussed the importance of incorporating EDI into healthcare research. Dr. Johnson's talk emphasized the need for EDI principles to be woven into the fabric of all research efforts, ensuring that advancements in dermatology are accessible and beneficial to diverse populations.

The day also featured interactive sessions, including a team-building exercise designed to strengthen collaboration among attendees. Poster presentations allowed participants to showcase their research in a more informal setting, facilitating networking and discussions that sparked future collaborations.

## REVOLUTIONIZING WOUND CARE AT THE SHELDON M. CHUMIR WOUND CLINIC

Under the leadership of Medical Director, Dr. Laurie Parsons, the Sheldon M. Chumir Wound Clinic pushes the boundaries of wound care, integrating research findings into clinical practice to improve patient outcomes. The multidisciplinary team provides comprehensive wound care management for patients with acute and complex chronic wounds. This clinic is designed to address a wide range of wound care needs, particularly for individuals with diabetes, by providing specialized services such as acute wound management, chronic wound consultation, and personalized care planning. The clinic also offers gait and footwear assessments for clients with neuropathy-induced wounds and plantar foot wounds, including biomechanical evaluations to identify pressure sources that contribute to wound development. For clients requiring custom-made footwear, the clinic facilitates referrals according to Alberta Aids to Daily Living (AADL) guidelines, ensuring that patients receive appropriate and supportive footwear to aid in wound healing and prevention.

In addition to wound care and prevention, the clinic incorporates advanced innovative therapies into its treatment protocols, including Negative Pressure Wound Therapy (NPWT), Ultrasound, E-Stim, and Total Contact Casting (TCC), which provide alternative methods for treating wounds and promoting healing. These therapies represent the clinic's commitment to offering cutting-edge care for patients with challenging wound conditions.

Moreover, the clinic extends its services to homeless and marginalized clients through drop-in wound care support, ensuring that even the most vulnerable populations have access to essential wound care services. This aspect of the clinic's work reflects its dedication to inclusivity and the provision of care for all individuals, regardless of their circumstances.

The Specialty Wound Clinic is not only focused on patient care but is also actively involved in education and research. The clinic collaborates with basic scientists on wound healing research and conducts clinical trials on novel therapies, contributing to the advancement of knowledge in the field.

15

SUBSPECIALTY TRAINING  
PROGRAM RESIDENTS  
five year program, 3 per year

51

APPLICATIONS FROM PROSPECTIVE  
SUBSPECIALTY TRAINING  
PROGRAM RESIDENTS



# Endocrinology & Metabolism

The Division of Endocrinology and Metabolism is diverse group of physician researchers, clinical educators, and expert clinicians that are internationally recognized as leaders in Diabetes, Hypertension, Reproductive Endocrinology, Endocrine Disorders of Pregnancy, Gender Health, Pituitary Disorders, Osteoporosis and Thyroid Cancer.



Dr. Doreen Rabi

Dr. Doreen Rabi is a clinician researcher with expertise in cardiovascular risk reduction, social determinants of health and health equity. She is a Professor within the Department of Medicine with cross appointments to Cardiac Sciences and Community Health Sciences. Dr. Rabi is well known for her activities in developing guidelines for the care of persons living with hypertension and diabetes and leads the Canadian Collaboration for Complex Care- an international, multidisciplinary team that is dedicated to promoting equity-focused transformation of health care.

**CLINICAL:**

The Division of Endocrinology and Metabolism provides high quality and diverse specialized endocrine services to Southern Alberta. With increasing demand for specialized services (particularly in osteoporosis, diabetes, diabetes in pregnancy, and thyroid cancer), our physicians have worked closely with operations to support the upskilling of existing staff and the hiring of non-MD prescribing clinicians to optimize access and cost-efficiency in our programs.

Dr. Vicky Parkins, the newly appointed Quality Improvement Lead, is working with all clinical and operational leads in the Division to ensure data-driven quality improvement and the development of a Just Culture to promote patient, clinician, and learner safety.

**ADMINISTRATIVE:**

The Endocrinologists of the Department of Medicine are well represented in leadership at the Cumming School of Medicine, Alberta Health Services and Cancer Care Alberta.

Endocrinology leaders include Dr. Doreen Rabi in the role of interim Senior Medical Director, DON SCN as

well as the Co-Chair of the Provincial Diabetes Steering Committee. Dr. Karmon Helmle is the Associate Chief Medical Information Officer in the Calgary Zone. Dr. Sana Ghaznavi holds the role of Provincial Lead, Thyroid Cancer. Dr. Sonia Butalia is the Medical Director of the Cumming School of Medicine Physician Learning Program. Dr. David Campbell is the Co-Director of the Health Policy Trials Unit at the O'Brien Institute for Public Health. Dr. Julie McKeen is also a Co-Chair of the Provincial Diabetes Working Group

**RESEARCH:**

The Division of Endocrinology has seven academic GFT members that are research intensive (Drs. Benham, Butalia, Campbell, Leung, Rabi, Paschke, and Sigal) and four major clinical faculty that are very active academically (Drs. Donovan, Ghaznavi, Kline, and Lithgow).

With a total of 158 publications and over \$14 million collectively in peer reviewed research funding, our division is doing highly impactful work in the areas of diabetes, diabetes in pregnancy, hypertension, osteoporosis, pituitary disease and thyroid cancer.

In addition to knowledge generation, our academic members have notable roles and achievements in research mentorship. Dr. Campbell is the co-Chair of the Person to Population Research Group and in that role provides strategic guidance to graduate students and early career researchers in the Libin Cardiovascular Institute. Dr. Leung was distinguished as being the Research Preceptor of the Year at the Cumming School of Medicine.

**EDUCATION:**

The Endocrinology Specialty Training program welcomed Dr. Laura Hinz as the new Program Director while Dr. Shelly Bhayana continued in her role of Associate Program Director. The program continues to attract, train, and graduate outstanding clinicians.

Dr. Hinz and her administrative team organized the inaugural PGME Wellness Retreat for Medicine Residents which featured important content on optimizing professional and personal wellbeing. Dr. Jillian Horton, acclaimed author, and physician, provided an affecting keynote address.

The division is home to several

outstanding clinical teachers that received recognition with UME Gold Star awards for their contributions in the final year of Course IV including Drs. Greg Kline, Hanan Bassyouni, and Laura Hinz. Several other members were distinguished with Associate Dean Letter's of Excellence including Drs. Alex Leung, Greg Kline, Julie McKeen, and Chris Symonds. Dr. Hanan Bassyouni, was honored with the Jersey Award for her unwavering dedication to supporting UME learners.

**KEY CHALLENGES:**

The shortage of primary care physicians in the community continues to be a challenge for our group. Patients that do not have access to timely primary care will present with acute concerns that require urgent access to endocrinology or emergency department care. Without being able to share care or discharge stable patients back to primary care, endocrinologists are needing to support an increasing number of patients with stable but chronic endocrine disease while simultaneously responding to an increasing number of highly urgent referrals. In short, the rising prevalence of endocrine conditions and the growing need to provide longitudinal care has created a significant capacity challenge.

This capacity challenge is occurring at a time when the health care system is being refocused and the position of specialized ambulatory care within the new organization remains unclear. This organizational uncertainty prevents us from effectively addressing our current challenges and limits our ability to plan for a successful future.

**KEY SUCCESSES:** Despite massive organizational change and increasing clinical demands, the Division remains very united as a community. We continue to find strength in collaboration. We have an increasing number of requests for post-graduate training in highly specialized areas such as endocrine hypertension, metabolic bone disease and diabetes in pregnancy.

**REVITALIZATION OF REPRODUCTIVE ENDOCRINOLOGY PROGRAM**

The reproductive endocrine program at UCalgary, under the leadership of Dr. Bernard Corenblum, has been providing comprehensive endocrine care for patients with endocrine causes of subfertility and infertility for over 40 years.

Since Dr. Corenblum's retirement in 2022, there was an opportunity to further expand and evolve care in the field of reproductive medicine and endocrinology at SHC. These specialized ovulation induction strategies with pulsatile GnRH and exogenous gonadotropins provide unique fertility treatments for patients with disorders of the hypothalamic-pituitary-ovarian axis. Without these treatments, these patients lack the necessary hormonal pathways required for an ovulatory cycle and thus would be unable to conceive without assisted reproductive therapies. With the support of the Regional Fertility Program, our program strives to provide

comprehensive care and treatment options not available at any other Western Canadian centre.

The first pulsatile GnRH cycle at the SHC reproductive endocrine program was offered in September 2023. Since then, four cycles of pulsatile GnRH have been completed with 2 successful pregnancies. Similarly, three cycles of exogenous gonadotropins have been completed with 1 pregnancy outcome.

Ultimately, the greatest success of this program thus far is the opportunity for individuals with hypogonadotropic hypogonadism to conceive with minimal invasiveness and low risk of adverse outcome. The current SHC reproductive endocrine team is comprised of three endocrinologists, 2 nurses (one RN and one LPN), and MOA support staff.

**DEVELOPING A PROVINCIAL DIABETES STRATEGY**

In 2022 under an order from the Alberta Ministry of Health, the provincial Diabetes Working Group (DWG) was established with the mandate to "review diabetes care in Alberta and provide recommendations to improve diabetes prevention, diagnosis, treatment and management". Drs. Julie McKeen and Peter Sargious were appointed co-Chairs for the DWG.

The DWG drew on the enormous expertise of the Division to inform recommendations for a comprehensive, evidence-based provincial diabetes strategy. The co-Chairs oversaw a working group of approximately 200 participants. There were 8 distinct subcommittees. The subcommittees convened several meetings and members completed surveys between meetings, to ensure the process of identifying recommendations and priorities was robust and rigorous.

In total, there were 13 Division members (8 physicians and 5 non-MD clinicians)

that volunteered over 180 hours to this unique initiative. This level of engagement in a Ministry-sponsored diabetes initiative speaks not only to the regard for Divisional expertise but also the genuine commitment and passion our Division has for excellence in diabetes care.

As per the Ministerial order, in the spring of 2024, Drs. McKeen and Sargious submitted a final report that outlined the work and recommendations of the DWG. It is the hope of all DWG participants (that included pan-provincial, cross-sectoral partners, people living with diabetes, and families) that the work translates to an innovative, comprehensive, and equity-focused strategy to improve the lives of people living with diabetes in Alberta. If this comes to pass, the role the Division played in reshaping diabetes care in this province will be a remarkable Divisional legacy.

1 ADVANCED FELLOW

4 SUBSPECIALTY TRAINING PROGRAM RESIDENTS  
PGY4: 1 | PGY5: 3

24 APPLICATIONS FROM PROSPECTIVE SUBSPECIALTY TRAINING PROGRAM RESIDENTS



# Gastroenterology & Hepatology

The Division of Gastroenterology & Hepatology prioritizes high value innovative care, cutting edge basic, translational and clinical research in addition to excellence in education. Across our four adult hospitals our division functions as a cohesive group of over 60 members. We are international leaders in the areas of inflammatory bowel diseases, hepatology, colorectal cancer screening, gastrointestinal motility disorders and advanced endoscopy. Our division is also recognized as national leaders in innovative patient care models. Calgary’s Adult Gastroenterology Residency Training Program remains one of the most sought after in the country and each year Canadian and international physicians select Calgary to acquire additional training in one of our highly acclaimed subspecialty fellowship programs. Finally, many of our division members are renowned in their disciplines and are frequently invited to speak around the world



Dr. Steve Heitman

Dr. Heitman is Professor of Medicine in the Departments of Medicine and Community Health Sciences. He currently holds the N.B. Hershfield Chair in Therapeutic Endoscopy. In addition to his leadership role in the Department of Medicine, he has been the Scientific Director for the Digestive Health Strategic Clinical Network of Alberta Health Services. Dr. Heitman’s research interests are focussed in the areas of colorectal cancer screening, endoscopy quality and outcomes of advanced endoscopy.

## CLINICAL

The section provides a full complement of clinical services to patients both within and outside the Calgary Zone. We have the highest demand for outpatient care of all divisions within the Department of Medicine. At the same time demand for in-hospital care continues to rise among our aging and increasingly complex medical patients. However, dedicating additional bandwidth towards inpatient care comes at a high cost of falling further behind on our substantial outpatient waitlists.

Efforts such as our Primary Care Clinical Pathways and Specialist Link service are designed to provide timely support for referring physicians which we hope also reduces the number of unnecessary referrals that can be managed in the medical home. It is only through a combination of optimizing clinical service delivery AND controlling the influx of specialist referrals that our section will be able to improve on our wait times for accessing care.

Focussing our efforts on added service supply would be met with an

accompanying increase in demand. The Section is very aware of this interplay and has been focussing on making gains in both areas.

## ADMINISTRATIVE

Many of our members are involved in administrative leadership.

Dr. Carla Coffin is the DOM Vice Chair for Research & Scholarship and Dr. Mayur Brahmania is the DOM Associate Vice Chair for Health Analytics, Quality and Safety. Dr. Bob Hilsden is the Medical Director of the Forzani & MacPhail Colon Cancer Screening Centre (CCSC). Dr. Paul Belletrutti is the Therapeutics Lead at CCSC, the Medical Lead for Endoscopy in the Calgary Zone and is also the GI Site Lead at Foothills Medical Centre.

Drs. Nauzer Forbes, Laura Stinton and Michelle Buressi are the Site Leads at the Peter Lougheed Centre, Rockyview General Hospital and South Health Campus, respectively.

Dr. Stephen Congly is the Lead for Hepatology and Dr. Nauzer Forbes is

the Head for Therapeutic Endoscopy. Dr. Matthew Mazurek is the Medical Lead of Central Access and Triage (CAT). Dr. Kerri Novak has been the Senior Medical Director of the Digestive Health Strategic Clinical Network (DHSCN) of AHS. Dr. Edwin Cheng is our newly appointed Program Director for our Residency Training Program taking over from Dr. Melanie Stapleton who was held this role for over 10 years.

## RESEARCH

The division continues to excel in research across its disciplines. For the 2023-24 academic year well over 100 unique manuscripts were published by one or more of our members including many in the top general medical and speciality journals.

Dr. Gil Kaplan and team received a CIHR Project Grant – Priority Area Award: “Inflammatory Bowel Disease in 2035: A National Study of the Canadian Gastro-Intestinal Epidemiology Consortium (Can- GIEC).

## EDUCATION

Many of our division members are heavily involved in teaching and educational leadership.

Dr. Remo Panaccione is the Assistant Dean, MD Admissions (UME) at the University of Calgary. Dr. Sylvain Coderre is the Director of Teacher Development for the Office of Faculty Development. Dr. Kelly Burak is Assistant Dean, Continuing Medical Education and Professional Development & Physician Learning Program. Dr. Edwin Cheng is the Director of the Gastroenterology Residency Training Program and an Associate Program Director for the Internal Medicine Residency Program.

The Division also offers highly sought-after subspecialty fellowship programs in IBD (Director – Dr. Remo Panaccione), Advanced Biliary Endoscopy (Dr. Suqing Li), Advanced Luminal Endoscopy (Dr. Paul Belletrutti), Hepatology (Dr. Meredith Borman) and Motility (Dr. Matthew Woo). We also offer training in intestinal ultrasound lead by Dr. Kerri Novak.

## KEY CHALLENGES:

The Digestive Health Strategic Clinical Network (DHSCN) was one of 11 SCNs and 5 Provincial Programs in Alberta who’s over-arching goal was to provide a scaffold for translation of evidence and optimization of clinical care important to Albertans. The DHSCN was considered by many to be a model of success for the SCN concept. Unfortunately, Government made the decision to dissolve the SCNs in the spring of 2024. The DHSCN was comprised of highly engaged clinical, academic and operational leaders across the province who worked collaboratively and alongside stakeholders including patients to establish and support mutual priorities and co-led projects. It also provided a robust mechanism to effectively communicate with senior AHS leadership. One notable example of the positive impact of the DHSCN was in helping to secure resources and providing stewardship for the expansion of GI Central Access and Triage (GI CAT) in Calgary and Edmonton in addition to creating a GI CAT in Red Deer.

Moving forward there are several challenges, uncertainties and risks facing gastroenterologists, hepatologists and patients across Alberta. Those who worked extremely hard and passionately within the DHSCN can hopefully be re-engaged to continue their important work within the newly established Program Improvement and Integration Network (PIN) model that has been put in place. However, it is not clear whether and how our people, Alberta’s most important resource will continue to work together as they did within the DHSCN.

Another key challenge has been in the area of recruitment. The

section has experienced significant physician turnover over the past couple of years. Since the change in section leadership starting January 2022, 7 long-standing division members have either retired, are in the process of retiring or have left Alberta for positions elsewhere. During this same time frame 13 new members have been added to the section. Fortunately, we have managed to generate a small net increase in clinical FTE which has been desperately needed given our rapidly growing population and accompanied increase in clinical demand. To allow for the hiring of additional members beyond replacement the section had to be strategic. With help from Operations, previously untapped capacity in the outpatient clinic at the Foothills Medical Centre was realized and we also leveraged efficiencies in endoscopy utilization to permit recruitment.

Unfortunately, recruitment in the division will now pause until additional endoscopy and clinic capacity becomes available. This is problematic given the projected further growth in the City and Zone. Luckily, we are fortunate to be training outstanding physicians, many who have expressed interest in staying in Calgary. As such, the focus must be on operationalizing facilities that currently exist or are about to come on-line (e.g. the new RGH GI unit, the endoscopy room at the Arthur Child Cancer Centre and the envisioned expansion of endoscopy on the 4th floor of FMC). While additional funding and staffing will be required to support this added clinical activity, at least the space is already developed or requires renovation rather than a much larger capital outlay to build new.

## CENTRALIZED ACCESS AND TRIAGE (CAT) “BLITZ”

The launch of Connect Care at FMC caused enormous problems for GI CAT which receives over 2000 referrals per month. The substantial change in workflow and added tasks placed on our chronically understaffed triage workforce coupled with an increasing volume of referrals quickly led to an unmanageable situation where each day many more referrals were received than could be processed.

Within 3 months the number of referrals needing to be triaged grew to nearly 4000 compared to historical levels of less than 1000 with no end in sight. At that time there was no simple solution for catching up. Therefore, it was decided that every

member of the Section would chip in to triage simultaneously alongside CAT over a 4-week period. Not only did this immediately halt the daily rise in the number added to the waitlist, but after 4 weeks the number on the list to be triaged fell to approximately 2500. Around this time new help began to arrive with the additional funding organized through the work of the DHSCN described previously.

Within 6-9 months GI CAT consistently had fewer than 500 referrals waiting to be triaged despite the addition of the remaining GI physicians at the Rockyview General Hospital who hadn’t been part of GI CAT. This was a significant success story made possible by teamwork.

## FOCUS ON PHYSICIAN WELLNESS

It is hard to believe that it has only been in the last few years that physician wellness has gained the attention it deserves. The underlying issues that have contributed to physician burnout and mental illness within our profession have been present for decades. Over the past year our Section has tried to complement the support programs offered through the Department of Medicine and the Alberta Medical Association. At the start of the year, we held a brainstorming session over dinner where we discussed ways in which we can support the needs of each other.

We now have a monthly evening dinner event where topics identified by the section membership are discussed. So far, these sessions have been reasonably well-attended, but additional participation is certainly possible.

These evenings touch on inter-related topics contributing to one’s well-being (e.g. sleep, exercise, mindfulness). We are even planning a future event in a kitchen where participating members will learn how to prepare fast and healthy meals together – an event that is sure to be a lot of fun too!

While each monthly session is designed around a particular topic of interest, part of the tangible benefit arises from the much-needed social interaction that has been lacking over the past few years.

Finally, the Section has been offering subsidies for those who wish to obtain extra training in this area or attend seminars focused on wellness.

5

SUBSPECIALTY TRAINING  
PROGRAM RESIDENTS  
PGY4: 3 | PGY5: 2

40

APPLICATIONS FROM PROSPECTIVE  
SUBSPECIALTY TRAINING  
PROGRAM RESIDENTS



# General Internal Medicine

General Internists diagnose patients with undifferentiated disease and manage conditions when it is unclear as to which organ system is involved or many organ systems are involved. They are suited to care for patients who have acute or chronic multiple system disease. The ability to adapt allows a general internist to provide high quality subspecialty care when not available in non-metropolitan areas. General internists also provide medical care during critical periods such as before surgery or during pregnancy. General Internists working in academic centers often are well-suited to be educators, researchers and administrative leaders.

### CLINICAL

Our members continue to attend on the Medical Teaching Unit, providing care to some of the most complex patients admitted to the hospital. General Internal Medicine clinical services have expanded at all four Calgary Regional Hospitals due to an increase in volume and complexity of patients needing admission.

In addition to attending on the medical teaching units and general medical units, our section also covered inpatient consultation services, obstetrical medicine consultations, vascular medicine consultations, thrombosis consultations, addiction recovery and community health team, vulnerable population clinics and vaccination policy development, and obesity medicine clinics at the Calgary Adult Bariatric Clinic.

Outpatient general internal medicine clinics also included complex chronic disease management clinics, a fellows clinic, an urgent assessment clinic, and immunodeficiencies and hypertension clinics.

### ADMINISTRATIVE

Many members in our section hold administrative positions within the Calgary Zone, CSM, UCalgary and at provincial level. General Internists have unique perspectives on many areas

in our healthcare system due to their broad range of clinical services, making them well-suited for leadership in healthcare services, medical education and other academic areas.

Some examples include and are not limited to: Medical Informatics Leads Drs. Evan Minty and Caley Shukalek. Medical Director, Seniors, Palliative and Community Care, Dr. Michelle Grinman and the Medicine SCN, Senior Medical Director, Dr. Anna Purdy.

Three out of four DOM Site Leads are general internists (Drs. Caley Shukalek, Kathryn Watson and Jolene Haws). Other DOM leadership positions held by general internists include the Vice Chair of Workforce Planning, Dr. Kelly Zarnke. In the area of wellness and EDI: the DOM Vice Chair Physician Wellness and Vitality, the Director of Physician for the Wellness Office of Professionalism, Equity and Diversity at the CSM, UCalgary, as well as the director of Well Doc Alberta, held by Dr. Jane Lemaire; the DOM Associate Vice Chair EDIA, Dr. Shannon Ruzyski; and the DOM Vice Chair Indigenous Health, Dr. Kelle Hurd.

Dr. Maria Bacchus serves as Executive Director of the Alberta International Medical Graduates Program. Dr. Janeve Desy is Assistant Dean, Evaluation and Research (CSM). Dr.

Aleem Bharwani is Director of Public Policy and Strategic partnerships CSM and the O'Brien Institute, UCalgary. The Academic Director of the UCalgary Pluralism Initiative, Office of the Vice-President Research, is held by Dr. Gabe Fabreau. Dr. Bill Ghali is Vice President Research, CSM, UCalgary. Dr. Paul Davis is the Director of the Virtual Home Hospital CZ; Dr. Eliana Castillo is Medical Director of Quality Improvement in the Physician Learning Program CZ.

Research Chair Holder, John A. Buchanan Chair of GIM, is Dr. Irene Ma and the President of the Canadian Society of Internal Medicine (CSIM) is Dr. Jeffrey Schaffer.

### RESEARCH

There are currently ten academic (GFT) researchers in the division with 100 publications in peer-reviewed journals and four non-peer-reviewed or government publications.

Topics of research include obstetrical internal medicine epidemiology, remote delivery of medicine and supplies, clinical services, point-of-care ultrasound, thrombosis, refugee health and policy, cardiovascular prevention in high-risk postpartum populations, medical leadership, equity, diversity and inclusion research and pluralism and public policy.

### EDUCATION

The involvement of general internists in medical education include many hours taught at the UME and PGME level, in addition to medical education research, innovation, ultrasound and simulation educational programs. General internists participate in curriculum development and hold director-level positions in teaching innovation. Point-of-Care Ultrasound (POCUS) education has been formally developed with a rotation now offered at the PGME level and fellowship training for R5-level GIM Fellows. Simulation education has received Royal College of Physicians and Surgeons Accreditation.



Dr. Leanne Reimche

Dr. Leanne Reimche is a specialist in General Internal Medicine and is a clinical associate professor (UCalgary). She has completed formal training in patient safety/quality improvement/informatics/ leadership (Harvard Medical School) and obesity medicine (Diplomate of the American Board of Obesity Medicine). She also holds Masters of Management in International Health Leadership (uMcGill).

### KEY CHALLENGES

The major clinical challenge remains the increased demand for our clinical services. We have increased recruitment to meet this demand with the aging population and the rising prevalence of chronic disease in the community.

We have expanded our number of non-teaching general internal medicine units at the Foothills Hospital, Peter Lougheed Hospital and the Rockyview General Hospital to meet growing acute care patient volumes.

### KEY SUCCESSES

In addition to the several awards from the IMRP, UME and Department of Medicine given to several of our members, there are many significant provincial/national awards, including the Meredith Marks New Educator Award from CAME National, which was received by Dr. Janeve Desy. Dr. Michelle Grinman was recognized for Empowering Women: Breaking Barriers and Leading in the Hospital at Home Industry at the World Hospital at Home Congress.

Dr. Rahim Kachra was honoured with the Laureate Award by the Alberta Chapter of the American College of Physicians, the Jones Award for Leadership Excellence in the UME program at CSM, an Alumni of Distinction Award and the Canadian Association for Medical Education (CAME) Merit Award.

### DR. KARA NERENBERG

Dr. Kara Nerenberg is known internationally for her leadership in conducting foundational research to identify evidence-based interventions, models of care, implementation and engagement strategies to address important clinical research gaps in cardiometabolic health promotion for women over the reproductive years.

Some of Dr. Nerenberg's work includes developing the Alberta Pregnancy & Postpregnancy Longitudinal Evaluation Surveillance System (APPLES). Her team developed APPLES by linking 6 population-level administrative databases for comprehensive data on all pregnancies in Alberta through 2010-20 with up to 10 years of follow-up to monitor:

- trends in CARE (Cardiometabolic Associated Reproductive Events);
- clinical practices of screening and management of CV-RF after CARE;
- health services utilization.

APPLES data has identified opportunities to implement health system-level health promotion interventions and evaluate their impacts on health outcomes, utilization and costs after CARE. Key findings recently presented as abstracts at national and international meetings in 2023-24 include:

- High CARE incidence: 11,400 patients annually to reach with health

promotion interventions.

- Increasing CARE incidence: by~25% from 2010-2020 despite the availability of evidence-based interventions to reduce CARE events (e.g., low dose aspirin,- physical activity, etc.).
- Low rates of CV-RF screening (lipids, dysglycemia, etc.) ~35% by 4 years after CARE.
- High incidence of cardiometabolic multimorbidity: (i.e., 2+ of hypertension, obesity, dysglycemia, heart attack, stroke, etc.) of ~15% within 5 years after CARE.
- High rates of health services utilization: (i.e., Readmission, ED visits, Family Physician and Specialists visits) in 1 year after CARE; alarmingly >10% had no family physician follow-up.

General Internal Medicine has been involved in a longitudinal clinic to help reduce CV risk. We found that in Calgary's PreVASC clinic with annual follow-up, CARE patients reported high levels of satisfaction with the clinic model, 95% reported at least one health behaviour change, and 32% had medication adjustments (CJC Open 2024).

### POCUS

Dr. Irene Ma works at the zone, provincial, and international levels to promote POCUS skills within GIM. She has been re-elected as third Vice President for the American Institute of Ultrasound in Medicine, serving as co-chair of the Medicine SCN POCUS Working Group, where Best Practice Recommendations are being finalized. She also serves as co-chair of the HIMSS/SIIM/AIUM POCUS Work Group White Paper and a governor of the American College of Physicians (Prairie Provinces Chapter). Locally, Dr. Ma is working hard to bring POCUS consultation services availability to areas outside of GIM at FMC as well as training fellows to support GIM patients on inpatient services.

POCUS has expanded to a consultation service at RGH with increased availability from the team there. This has resulted in an increase of physicians recruited to RGH with POCUS skills leading to more training opportunities for our GIM fellows and residents in the IMRP.

### SIMULATION EDUCATION

Simulation education is a critical component of our academic portfolio, providing a safe and controlled environment where learners can practice and refine their clinical skills without risking patient safety. This teaching strategy is one of the strengths of our department. The DOM has a group of certified simulation educators — Dr. Alejandra Boscan, Dr. Jolene Haws and Dr. Ghazwan Altabbaa — that run the simulation activities including the Internal medicine residency program, the GIM fellowship program, some UME activities, and most recently started collaborating with the clinical skills course for the masters of physician assistant studies at UCalgary.

The group of simulation educators facilitate over 100 sessions per year including the personal protective equipment training for all upcoming residents and tailored sessions to assist with Learning support plans for residents facing challenges during their training.

### DR. GABE FABREAU, REFUGEE HEALTH UPDATES

Dr. Gabe Fabreau is a national and international leader in Refugee Health. His organization successfully hosted NARHC 2023 in Calgary which was the largest, and most successful international conference in the society's 14-year history.

Dr. Fabreau has worked with the World Health Organization (WHO) Department of Migration Health since October 2023, and he has been invited to collaborate with WHO and co-lead a 2nd World Report on the Health of Refugees and Migrants. He was also invited to join the expert technical advisory committee for

the UN High Commission for Refugees (UNHCR) Group of Friends of Health and to participate in the Global Refugee Forum in Geneva in December 2023. In February 2024, Dr. Fabreau also spoke as a panelist and speaker at a joint WHO/UNHCR global technical meeting on non-communicable diseases in Copenhagen.

Locally, Dr. Fabreau has established a new multi-disciplinary UCalgary partnership and team that includes the Center for Health Informatics. He co-directs Refugee Health YYC (RHYYC) which centers all of its work around

inclusion, diversity and health equity. Specifically, the EDI for Canada's newest and most vulnerable residents.

Externally, the team's mission is to ensure equitable access to inclusive treatment in healthcare, led by EDI principles, for the diverse population of refugees arriving in Calgary, Alberta and Canada. A refugee patient advisory committee ensures service delivery and research is grounded in the needs and experiences of the refugees RHYYC serve.



# Geriatric Medicine

The Section of Geriatric Medicine has 24 members who specialize in the care for older adults living with frailty. This includes providing specialized clinical care in acute care and community settings via Specialized Geriatric Services and involvement with other programs, including Neurology, Cardiology, SAC, MAID and Homecare. The section is actively engaged in research and program development relevant to the population we serve, leadership at multiple levels within AHS & UCalgary, and medical education at all levels.



Dr. Karen Fruetel

Dr. Fruetel became the Division Head starting September 2021. She previously held this position from 2008-2016, along with other positions including Medical Director of Specialized Geriatric Services and Medical Leader Seniors, Palliative and Continuing Care. She is the Vice Chair of Education for the Department of Medicine and in 2021 became a Certified Executive Coach and provides coaching services to Department Members.

### CLINICAL

The Division supports clinical activities through Specialized Geriatric Services (SGS) and has also developed relationships with divisions and programs outside of SGS. Acute care services include hospital consultations and the Acute Geriatric Unit. Ambulatory services including Seniors Health clinics, Falls Clinic, Geriatric Peri-operative clinics, Rural clinics and the Geriatric Day Hospital. Dr. Selynne Guo, a new member of the division, has started a relationship with Oncology to conduct pre-treatment comprehensive geriatric assessments.

Members also provide clinical support to programs outside of SGS including the Movement Disorders Clinic, the Wound Clinic, the Alex Seniors Clinic and HIV clinics. Dr. Zahra Goodarzi co-chairs a multidisciplinary task force with Emergency Medicine that includes members of our division with the goal to optimize care of older adults in the ED (see feature article earlier in the Annual Report for more details).

### ADMINISTRATIVE

Several of our division members hold significant leadership positions. These positions include: Medical Director of

the Seniors Health SCN held by Dr. Silvius, Medical Lead AHS Provincial Fracture Liaison Service held by Dr. T Wong; Medical Director of Specialized Geriatric Services and Transition Services held by Dr. Fruetel; the Medical Director of Home Care held by Dr. Kwan; Medical Director of MAID held by Dr. J Arnold; and the Academic Lead of the Brenda Stafford Centre on Aging is held by Dr. Holroyd-Leduc.

Members are also providing leadership to the Department of Medicine, including the Head of the Department, Dr. Holroyd Leduc as well as the Vice Chair of Education, Dr. Karen Fruetel.

### RESEARCH

The five researchers within the division had 62 peer reviewed publications, in 2023-24, and held a total of \$2.6 million in grant funding as PI or coPI.

Dr. Holroyd-Leduc is the Brenda Stafford Foundation Chair in Geriatric Medicine and Academic Lead of the Brenda Stafford Centre on Aging. Dr. McMillan is the local PI for the Canadian Longitudinal Study on Aging and co-chair of the CIHR Canadian HIV and Aging Research Development Team. Dr. Hogan is a member of the

CIHR Institute of Aging Advisory Board and chair of the Canadian Longitudinal Study on Aging (CLSA) Clinical Working group.

Dr. Goodarzi is the Program Director of the UCalgary Leaders in Medicine program and was awarded a national CIHR award for research on agitation and restraint used within with EMS and acute care.

### EDUCATION

Geriatrics makes a significant contribution to education across the whole spectrum of medical education. In UME, members are involved in a wide range of direct teaching including three members (Drs. Pearce, Hall and Kwan) who are RIME educators.

Within PGME, our members support not only the geriatric residency program, but also make significant contributions as academic advisors in the Internal Medicine Residency Program.

Educational Leadership roles within the Division include Dr. Burbuck who is currently the Chair of the IMRP Competency Committee, Dr. Dempsey who is the Program Director of Geriatric Medicine, Dr. Fruetel who holds the DOM VC of Education role,

Dr. Goodarzi who is the PD of the LIM Program, Dr. McMillan who is the associate PD of CIP, Dr. Pearce who is the current PGRM Wellness lead and Chair of the PGME resident appeals committee, and Dr. Schmaltz who is the Divisional CME lead and DOM rep on CSM CME/CPD committee.

### KEY CHALLENGES:

With the aging of the Alberta population, there will be an increase need for academic geriatricians to lead in the areas of aging research and policy development, as well as in educating other healthcare providers about the unique care needs of older adults. However, our ability to recruit this needed workforce will be impacted by current limitations within the DOM AMHSP.

### KEY SUCCESSES:

The Acute Geriatric Unit (AGU) at Rockyview General Hospital (RGH) introduced an additional consult stream called the AGU Direct Pathway. This Pathway reviewed older adults in the Emergency Room for consideration for direct admission to the AGU. Between May 2023 to March 2024 this pathway received 113 consults where 66% were directly accepted and 22% were redirected for full comprehensive geriatric assessment by the RGH Geriatric Consult team.

The AGU 30 day readmission rate averaged 2.3% compared to the average Calgary Zone Medicine rate of 6.1%.

### PERI-OPERATIVE GERIATRICS CLINIC:

Specialized Geriatric Services, under the leadership of Dr. Stacey Hall, created the first Geriatric Preoperative Clinic in Alberta in 2020. Dr. Krista Reich joined the clinic in 2023, bringing her clinical and research interest in geriatric perioperative care.

This clinic was created in response to growing evidence showing that geriatric syndromes such as frailty and cognitive impairment are key predictors of poor postoperative outcomes in older adults, both of which are often under recognized before surgery. Comprehensive geriatric assessments have been determined to be effective in improving outcomes, specifically increasing chances of returning home, reducing the length of stay

and reducing the risk of delirium.

In this program, older adults living with frailty who are undergoing elective surgery receive a comprehensive geriatric assessment that facilitates an individualized risk discussion to help navigate complex decisions around having elective non-cardiac surgery and improve perioperative care and outcomes. Patients are followed by our clinical nurse specialists postoperatively who implement delirium prevention plans.

Current initiatives to support further growth of this clinic include the ongoing collaboration with other perioperative care services including surgery, anesthesia, and internal medicine, as well as the Alberta

Prehabilitation Program.

Furthermore, our team received the MSI Foundation grant, for \$100,000 over two years, to facilitate implementation research aimed at increasing referrals and access to the Geriatric Preoperative Clinic.

Currently our clinic has served over 150 older adults considering surgery, with 50 of those patients assessed over the last year. Our end goal is to provide a full perioperative geriatric service that includes preoperative comprehensive geriatric assessments followed by postoperative geriatric care, as well as evaluate the clinical effectiveness of this program.

### IMPACT OF CHEMICAL AND PHYSICAL RESTRAINTS

Dr. Goodarzi, along with a large team of local and national researchers, aim to examine the impact of chemical and physical restraints on the patient, hospital and system level outcomes for older adults with emergency services.

The project which is co-led by the EMS and ED departments, aims to understand not only these specific outcomes for patients and our system but also the experiences of providers - to provide a nuanced understanding of a difficult topic. Understanding the impact of restraints will help to inform the further work needed to improve these outcomes for patients and staff.

This project was funded on its first submission to the CIHR, and awarded **CIHR Institute of Aging Prize: Yves Joanne Award of Excellence in Research in Aging**. This award is granted to the highest-ranking funded project in CIHR Fall Project Grant that aligns with the Institute of Aging goals.

### ONCO-GERIATRICS CLINIC

Dr. Selynne Guo is a new geriatrician who completed her Geriatric Oncology fellowship at the Princess Margaret Cancer Centre in Toronto. She has been working with the Genitourinary Medical Oncology group to pilot a new Onco-Geriatric Clinic with the goal of completing comprehensive geriatric assessments to help with cancer treatment decision making and with co-management of patients while under-going cancer treatment. There is strong evidence that this intervention has positive impacts on older adults including reduction in chemotherapy adverse effects, reduced health care utilization, improved QoL, reduced falls and cost effectiveness.



# Hematology & Hematological Malignancies

The Section of Hematology consists of 31 physicians based out of one of three acute care (FMC, PLC, SHC) sites in Calgary. Our physicians also operate clinics at the Tom Baker Cancer Center (TBCC), the Richmond Road Diagnostic and Treatment Center (RRDTC) and the Holy Cross Center. Expertise in the Section extends across the entire spectrum of blood disorders. Our section includes the Southern Alberta Rare Blood and Bleeding Disorders Program, the Alberta Blood and Marrow Transplant Program and the Calgary Thrombosis Program.



Dr. Andrew Daly

Dr. Andrew Daly is a hematologist with special interest in allogeneic hematopoietic stem cell transplantation, acute leukemia and lymphoma. He completed his medical training at McGill University in Montreal, Quebec, and trained in stem cell transplantation at the University of Toronto. Research interests include the use of alternative donors for stem cell transplantation and the use of cellular therapy to improve the outcome of alternative donor transplants. He has been section head since 2019.

## CLINICAL

Clinical workload within the Section of Hematology remains substantial. The Section manages outpatients at six sites (Peter Lougheed Hospital, South Health Campus, Foothills Hospital, Tom Baker Cancer Center, Holy Cross Hospital and Richmond Road Diagnostic and Treatment Center). Our clinics include General Hematology, Thrombosis, Hematological Oncology, Stem Cell Transplant and Cell Therapy, Immunodeficiency, Bone Marrow Failure and Rare Blood and Bleeding Disorders clinics. A significant portion of our workload involves Specialist Link and virtual consultations, which facilitate interactions either between physicians or directly with patients.

The Section also provides inpatient hematology consultation at all four acute care hospitals in Calgary. The Hematology Inpatient Unit provides chemotherapy and immunotherapy for patients living with leukemia, lymphoma and plasma cell disorders, supportive care for individuals with non-malignant blood disorders, such

as Sickle Cell Anemia and Thrombotic Thrombocytopenic Purpura, and advanced treatments like stem cell transplant or CAR T-cell therapy for patients meeting indications for these treatments.

## RESEARCH

The section has research strengths in multiple myeloma, thrombosis, bone marrow transplantation and clinical trials. Currently, there are 39 active clinical trials in malignant hematology, including three local investigator-initiated studies and five cooperative group trials.

The Section also conducts research in thrombosis, thalassemia and hereditary angioedema and is planning to launch clinical trials for Sickle Cell Anemia. Members of the Section contributed to 125 unique publications (including 45 abstracts) in 2023-24, in which 34 members were first or senior author. In total, the section secured \$5.5 million in research grants.

## EDUCATION

The section provides medical education at the UME, PGME and CPD levels. Clinical Clerks and Internal Medicine trainees continue to rotate through Hematology inpatient service, outpatient clinics and consult service.

The Hematology Training Program at the University of Calgary is one of the most sought-after programs in the country. This year, the program included four core hematology residents, with one trainee funded by the Clinician Investigator Program. Trainees are exposed to all aspects of our subspecialty, including Classical Hematology, Hematological Oncology, Cellular Therapy, Immunodeficiency, Laboratory Hematology, Rare Blood and Bleeding Disorders and Consultative Hematology. Trainees within the Hematology Training Program are expected to engage in academic pursuits and present their findings at national or international meetings.

## KEY CHALLENGES

Clinical workload remains significant. Last year, Hematology Central Access and Triage received 4,400 referrals, while the Cancer Centre received 958 referrals. Of these, 2,300 patients were seen in person, and 675 cases were managed through physician-to-physician phone consultations. Hematologists were also contacted over 2,000 times through Specialist Link, resulting in Hematology remaining the most consulted service on this platform.

There has been a corresponding increase in the number of follow-up visits performed by hematologists over the past year. Overall, the number of visits to Hematology clinics has grown substantially over the past five years. However, as there has not been any increase in the number of Hematology clinics either at the Cancer Center or in other outpatient clinics, we are observing a concerning rise in wait times for access to our services.

## KEY SUCCESSES

We have been successful in recruiting four new hematologists to our center over the past year and aim to continue to recruit additional staff over the next several years.

The Chimeric Antigen Receptor T-cell (CAR T-cell) program continues to grow. Last year, 26 patients received CAR T-cell therapy as part of their treatment for non-Hodgkin lymphoma, acute leukemia or multiple myeloma. With an expanding list of approved products as well as broadening indications, we anticipate that this program will continue to grow rapidly.

The Alberta Blood and Marrow Transplant Program treated 245 patients last year, marking the highest number of patients ever treated by the program.

## CLINICAL TRIALS RESEARCH IN THE DIVISION/SECTION OF HEMATOLOGY

Clinical trials are essential to any successful division of hematology. These trials provide early access to new or improved medications, expand indications for some agents, and in many cases provide treatment options to patients who would otherwise go without treatment. Trials by cooperative groups are also an opportunity to investigate critical questions and are likely to change management significantly. Currently, we are participating in five cooperative group studies focusing on patients with acute leukemia, multiple myeloma, lymphoma and myeloproliferative neoplasms.

Members of our section have also developed and opened research projects that are being conducted locally and internationally. The PARTUM trial, led by Principal Investigator Dr. Leslie Skeith, is an international, CIHR-funded trial of post-partum thromboprophylaxis for women at high-risk of VTE.

Other investigator-initiated trials include studies examining the outcomes of patients with myelodysplastic syndrome (Dr. Michelle Geddes), exploring the use of high-dose antithymocyte globulin for GVHD prevention (Dr. Jan Storek) and home self-administration of chemotherapy for multiple myeloma (Dr. Jason Tay).

Outside of the cancer center, our investigators are engaged in gathering real-world evidence to address knowledge gaps identified by Canadian regulatory bodies, creating "synthetic clinical trials" to fill these gaps (Dr. Dawn Goodyear). Additionally, they have also developed a national clinical registry for patients with Hereditary Angioedema (HAE), aiming to advance understanding of the natural history of HAE and its response to treatment (Dr. Goodyear).

In total, members of the section are

Principal Investigators in 40 clinical trials at the Cancer Center and several trials for non-malignant conditions being conducted through the University of Calgary Clinical Research Unit. In the past year we enrolled nearly 100 patients into clinical trials and have almost 500 patients on follow-up, representing 60% of all patients in clinical trials at the Cancer Center.

In 2022/23 (the last year for which data is available), over \$13 million worth of clinical trial drugs were provided at no cost to patients being treated at the cancer center. Per-patient funds, representing the additional cost to treat patients on study, were also substantial and were used to support the salaries of clinical trial personnel such as study nurses and research coordinators. There is substantial physician workload associated with conducting clinical trials, in many cases amounting to hundreds of hours per year.

## THE COLLABORATIVE IMMUNOLOGY PROGRAM

The Collaborative Immunology Program is the only adult immunodeficiency program in Canada and represents a significant advance in the management of patients with hereditary or acquired disorders of immune function. The program is jointly supported by the Sections of Hematology and Transfusion Medicine.

The program screens patients with suspected immunodeficiency, provides access to advanced diagnostic testing, and directs treatment to reduce the impact of the disease. Patients may receive immunoglobulin replacement therapy, usually with subcutaneous immunoglobulin that is administered by the patient at home. In some cases, more definitive therapy, in the form of hematopoietic stem cell transplantation, may be required. The Collaborative Immunology Program also accepts patients in transfer from Alberta Children's Hospital and provides comprehensive, lifelong care to affected individuals.

Key Contributors to this initiative include Dr. Jennifer Grossman (Hematology), Dr. Dave Sidhu (Transfusion Medicine), Yolanda Mitchell (Manager FMC Outpatients), Joanne Lenton (Manager UCMC Unit 5 & 6), Jennifer Coulthard (Executive Director, FMC Medicine)

## THE SYSTEMIC AMYLOIDOSIS PROGRAM

Systemic Amyloidosis is a rare, life-threatening condition that arises from deposition of abnormally folded proteins in organs targeted by the disease. Common sites of involvement include the heart, kidneys, nerves, and gastrointestinal system. Patients may experience heart failure, kidney dysfunction, peripheral neuropathy, and weight loss. Most patients with systemic amyloidosis have an underlying plasma cell neoplasm.

Due to its diverse presentations, systemic amyloidosis is often diagnosed late in its course, leading to poor outcomes and significant morbidity. The Systemic Amyloidosis Program is a multidisciplinary clinic that involves the Sections of Hematology, Cardiology, Neurology and Hematopathology. This program provides patients with early access to diagnostic procedures,

advanced cardiac imaging, case management and treatment of the underlying malignancy. This approach has been associated with improved outcomes for patients with amyloidosis and the program has provided significant research output.

The University of Calgary Amyloidosis Program represents the only multidisciplinary amyloidosis program in Canada. The University of Calgary Amyloidosis Day is a highly-regarded international conference hosted annually by Dr. Victor Zepeda and the Section of Hematology.

Key contributors to this initiative include Dr. Victor Zepeda (Hematology), Dr. Noel Fine (Cardiology), Dr. Chris Hahn and Dr. Sameer Chhibber (Neurology), and Dr. Etienne Maha (Hematopathology)

1 TRAINEE  
Clinical Investigator Program

4 SUBSPECIALTY TRAINING  
PROGRAM RESIDENTS  
PGY4: 2 | PGY5: 2

19 APPLICATIONS FROM PROSPECTIVE  
SUBSPECIALTY TRAINING  
PROGRAM RESIDENTS



# Infectious Diseases

The Infectious Disease (ID) Division provides inpatient consultative services at each of Calgary's four adult hospitals (with two services covering different portions of the Foothills Medical Centre). In addition, the division operates the home parenteral (antibiotic) therapy program (HPTP) at each site providing immediate consultation and follow-up for individuals with severe/complicated infections referred via emergency/or those discharged from hospital – saving resources. Members also lead care delivery across several multi-disciplinary ambulatory clinics including: General Infectious Diseases (at the RGH), HIV (SAC), Tropical Medicine, Sexually Transmitted Infections, Cystic Fibrosis, Hepatitis C, Tuberculosis and Wound Care.



Dr. Michael Parkins

Mike Parkins has been the Section Chief of Infectious Diseases since 2019. He is also the Director of the Calgary Adult Cystic Fibrosis Clinic and Director of the Home Parenteral Therapy Program (HPTP). Dr Parkins is a clinician-scientist with research interests supported by CIHR, the Cystic Fibrosis Foundation, Cystic Fibrosis Canada, Genome Canada, CFI, NIH and Alberta Health, and he is a leader of the Pan Alberta Wastewater monitoring network monitoring respiratory viruses, bacterial pathogens and antibiotic resistant organisms, and substances of abuse.

## KEY CHALLENGES

Again in 2023-2024 shortages in the availability of trained and licensed ID clinicians was the greatest issue facing the ID Division. In addition to increasing patient volumes this was impacted by prior retirements as well as workforce re-allocation to non-clinical pillars. These challenges occurred in parallel with a nationwide shortage of available infectious disease trained physicians exacerbating the problem. Through the "over and above" efforts of a number of dedicated division members we were able to ensure that all consult services and HPTP programs were fully staffed at all times, such that acute care delivery was not disrupted. Fortunately, by fostering a supportive and welcoming environment, and aggressive recruiting, the division approaches workforce neutrality for the next year.

Control and Hospital Epidemiology, Journal of Medical Virology, and basic science journals such as Cell Reports, Water Research and Science of the Total Environment.

Division members also led or contributed to more than 45 separate grants representing more than \$25 million in direct research funding from prominent agencies such as; NIH, NSERC, CIHR, PHAC, MITACS, CFI, Genome Canada and the Cystic Fibrosis Foundation. A number of ID division members serve as Principal Investigators on a range pharmaceutical and investigator initiated clinical trials advancing science and improving access to care for Albertans.

## EDUCATION

The Infectious Disease Division is proud of their recently graduated PGY-5 trainees. Dr. Carolina Diaz Pillares and Dr. Brandon Christensen have chosen to remain in Calgary, where they will be practicing infectious disease and sub-specialty care. The Infectious Disease residency training program has been led by Dr. Stephen Vaughan since 2020.

leaders of regional and provincial Infection Prevention and Control, Antimicrobial Stewardship Programs, organ recovery programs and as the Medical Directors of a range of clinics supported by the division. Recently, Dr. Kristen Brown began an exciting new role as the Medical Informatics Lead at the Chief Medical Information Office of Alberta Health Services. In this role, Dr. Brown helps to ensure that matters relevant to infectious disease and medical microbiology practitioners are thoroughly considered in new applications.

## RESEARCH

Members of the Infectious Disease Division continue to be highly productive in both clinical and applied research. Members from the group contributed to or led more than 120 publications in 2023/24, including in prestigious medical journals such as; The Lancet, JAMA, and CMAJ; the most impactful of Infectious Disease/ Microbiology journals including Lancet Infectious Diseases, Lancet HIV, Lancet Public Health, Clinical Microbiology Reviews, Clinical Infectious Disease, Clinical Microbiology and Infection, Emerging Infectious Diseases, Infection

## CLINICAL

Times have never been busier for the Division of Infectious Disease. The consult services at each of the sites are operating at maximum capacity providing support to clinicians through the full spectrum of medical and surgical services.

The Home Parenteral Therapy Program (HPTP) reviews all patients within 24-hours who are referred via emergency rooms and urgent care as well as those discharged from inpatient units. Through this mode of operation HPTP has no wait list. Last year there were more than 28,000 physician visits.

Within HPTP, patients are reviewed by an ID physician, following that, a plan is formulated. Pharmacists and nursing staff work with the patient to teach, and develop a plan for self-administered treatments at home (with or without home care support) for up to two weeks between visits. This practice reduces health resource utilization and helps to minimize the burden of care for patients.

## ADMINISTRATIVE

Members of the division serve in a wide variety of administrative roles including

## KEY SUCCESSES

Members of the division are involved in a wide range of clinical, scientific and translational research, as well as quality improvement endeavors that align with their scope of clinical practice. These activities include studies on pharmacologic treatment interventions, clinical studies in infection prevention and control, and basic science experiments studying the epidemiology and pathobiology of a range of bacteria, fungi and viruses. Division members are involved in work to improve access and performance of diagnostic testing.

## THE PANDEMIC EVIDENCE COLLABORATION (PEC)

With the generous support of the Home-McCall MacBain Foundation and after two years of planning, the Pandemic EVIDENCE Collaboration (PEC) was launched in April 2024 at Kellogg College at the University of Oxford<sup>1</sup>, engaging experts in the area of evidence-based medicine from leading academic centres worldwide, including the United Kingdom (Oxford), Australia (Gold Coast), Norway (Oslo) and Canada (Calgary & Hamilton).

The aim of PEC is to "identify, develop and implement strategies to generate high-quality evidence for non-pharmacological interventions (NPIs) during public health emergencies to inform policy and care decisions". This is particularly relevant as decisions for many NPIs during the COVID-19 pandemic, including, but not limited to – distancing, closures (daycares, schools, universities, businesses, borders), and capacity reductions for hospitals and healthcare – appear to have been made with limited evidence relative to the very high-quality data generated from the many randomizes controlled trials (RCT's) used in the development of vaccines and antivirals.

Questions to be addressed include:

- How to generate high-quality evidence (including but not limited to randomized trials) for NPIs during a global public health emergency;
- How to foster effective and efficient knowledge exchange so that scientists, clinicians and public

health officials can incorporate the resulting evidence into informed decision-making;

- How to best study the short and long-term consequences (benefits and harms) of NPI policies.

Outcomes including health benefits, economic and psychosocial impacts, effects on population equity and environmental considerations (example: natural and built environments like biosafety and waste management) parameters will be key metrics of study.

The division members included in this exciting initiative include Dr. John Conly (a founding member of the EVIDENCE Collaboration who spent the 2023-24 academic year as a Visiting Fellow at the University of Oxford), Dr. Ranjani Somayaji and Dr. Elissa Rennert-May (who successfully competed for a prestigious Evidence-Informed Fellowship (EIF) with the PEC<sup>2</sup>, which was designed to provide graduate trainees, post-doctoral fellows and early to mid-career investigators to allow for specific research skills development and visiting knowledge exchange programs at participating institutions. Other non-ID UCalgary members, including founding member Dr. Jenine Leal (Department of Community Health Sciences) are also involved. The ID Division looks forward to their contributions to this exciting multi-year initiative on a global basis and sharing their enriched research skills and contributions with other members of the DOM.

Sources:  
1) <https://www.kellogg.ox.ac.uk/news/kellogg-fellows-launch-new-collaborative-project-to-build-evidence-based-solutions-to-global-pandemics/>  
2) <https://research.ucalgary.ca/opportunity/2024-pandemic-evidence-collaboration-evidence-informed-fellows>

## CALGARY NEURO-INFECTIOUS DISEASE CLINIC LAUNCH

In collaboration with the Department of Clinical Neurosciences (DCNS), the division of ID has launched the Calgary Neuro-Infectious Disease Clinic (NIDC) at Rockyview General Hospital. The main objective of this clinic is to provide collaborative care to patients with neurologic infections by facilitating concurrent evaluations by infectious diseases specialists (led by Dr. Joseph Kim along with Dr. Bayan Missaghi and Dr. Joanne Salmon) and neurologists with subspecialty training in Neurologic Infections and Neuro-Immunology (Dr. Ronak Kapadia). Appropriate diagnostic testing will be arranged and expedited as required to ensure optimal patient care.

This clinic will also aim to create op-

portunities for neuro-infectious disease subspecialty training for learners across various related disciplines. As there is limited data regarding the natural history, long-term outcomes and complications of various neurologic infectious diseases, the development of a patient registry will be organized to advance our understanding. Additionally, a program for use of experimental therapeutics for rare neurologic infectious diseases will be established.

Adult patients with confirmed or suspected neurologic infections (based on initial evaluation/testing) will be referred by members of the DCNS and the Division of ID and others. Referrals will be triaged by Dr. Kapadia and Dr. Kim for an initial ID, Neurology or combined

consultation. Typical patients seen in the NIDC may include individuals with progressive multifocal leukoencephalopathy, HTLV-associated myelopathy, neurocysticercosis, CNS toxoplasmosis, recurrent HSV meningitis among others. Patients with confirmed viral encephalitis will be eligible for long-term follow-up.

NIDC will take place one half-day per month at the Holy Cross Ambulatory Centre at RGH.

The concentration of both ID and Neurology expertise will provide a unique place where these complex patients can be seen, investigated, managed ensuring quality of care and higher patient satisfaction.

## 35 YEARS OF EXCELLENCE AT THE SOUTHERN ALBERTA HIV CLINIC (SAC)

The Southern Alberta HIV Clinic (SAC) opened in October 1989 under leadership of the new Medical Director, Dr. M. John Gill, to provide HIV care for all persons with HIV in southern Alberta. Over 35 years, HIV Care has continually adjusted to reflect changing needs – from initially providing intense, comprehensive care to a small number of very ill individuals, to currently functioning as a high-volume multidisciplinary clinic enabling many patients to live completely normal lives, with a minimal burden from HIV care.

While most physicians practicing at SAC are ID specialists, expertise from other disciplines is increasingly required, including internal medicine, geriatrics, neurology, pediatrics, and increasingly family physicians – many who specialize in transgender medicine, palliative care and substance use care. The SAC team is truly multidisciplinary including specialized nursing, pharmacy, social work, analytics and outreach – all located in a single comprehensive clinic located at the Sheldon M. Chumir Centre.

Built upon recognizing our patient needs, SAC undertakes both local and international research on the epidemiology (as a founding cohort member of the NIH funded North American AIDS Cohort Collaboration on Research and Design (NA-ACCORD)) and the Antiretroviral Therapy Cohort Collaboration), pharmaceutical trials, implementation science, outcomes analysis and costs of care. These efforts have resulted in numerous knowledge transfer publications in high impact medical journals such as NEJM, Lancet HIV and JAMA. Local care initiatives have led to innovations in antiretroviral treatment programs enabling system-wide cost savings amounting to millions of dollars without compromising quality of care.

The most recent challenge SAC has been addressing is accommodating the tripling of new patients referred for ongoing care. This large increase in patient volumes (often from migrant populations requiring continued HIV care or newly diagnosed) and the complex mix of patient populations with diverse medical and social needs and barriers to care has created significant challenges which require innovative care delivery to ensure HIV remains well managed across southern Alberta.



# Nephrology

The Division of Nephrology includes a diverse group of 40 nephrologists, who, as leaders in kidney medicine, research and education, provide integrated kidney care to improve quality of life and outcomes for our patients and their families using innovative, and collaborative strategies. Our division also includes 7 Fellows, 3 Locums and 3 Clinical Associates. The Division of Nephrology encompasses a dynamic group of individuals all of whom are united by the drive to improve the lives of people living with kidney disease. In addition to providing excellence in clinical care, our group is engaged in research activities ranging from sex and gender influences, shared decision making, acute kidney injury, creating kidney organoids and innovating new COVID therapies.



Dr. Jennifer MacRae

Dr. Jennifer MacRae is the Section Chief of Nephrology and Medical Director for Alberta Kidney Care South and Co-Chair for the Renal Area Council. She is a Professor within the Department of Medicine and the Department of Cardiac Sciences and a member of the Libin Institute.

## CLINICAL

Providing patient and family centered care is at the heart of the clinical care provided by the division. Key priorities for our program include promoting and facilitating home dialysis and improving access to kidney transplantation.

## ADMINISTRATIVE

The division of Nephrology aims to foster a culture of quality improvement through collaboration and engagement with multiple stakeholders. As such, the majority of our members have leadership roles within the Division, the Department, the University, the Medicine Strategic Clinical Network and Alberta Health Services. New leadership roles this past year include Dr. Melissa Schorr as the Conservative Care Program Medical Lead, and Dr. Braden Manns holding the Senior Associate Dean, Clinical Research and Associate Vice-President of Health Research.

## RESEARCH

Research, innovation and evaluation are core principles guiding the Division. Our clinician scientists contributions are increasingly recognized through successful CIHR grant funding and numerous awards.

## EDUCATION

Educating the next generation of Nephrologists is taken very seriously in our program. Not only do we have a highly sought after Nephrology Fellowship program, but also have created an Advanced Nephrology Fellowship Program to support additional learning as a PGY6.

We are proud to have successfully graduated our first Glomerulonephritis Fellow, our first Home Dialysis Fellow, and have now welcomed our first Kidney Transplant Fellow as of July 1, 2024.

## KEY SUCCESSES

We had a successful Division retreat in Banff, Alberta where we re-grouped and re-iterated our vision for growth in our program.

## 21 APPLICATIONS FROM PROSPECTIVE SUBSPECIALTY TRAINING PROGRAM RESIDENTS

## 7 SUBSPECIALTY TRAINING PROGRAM RESIDENTS

PGY4: 3 | PGY5: 3 | PGY6: 1

## 1

### ADVANCED FELLOW

Advanced Nephrology Fellowship in Home Dialysis (PGY6) - Dr. Bushra Muzammal  
Graduated June 2024

## USING COMPETING RISK ANALYSIS GO GUIDE DECISION MAKING

Dr. Pietro Ravani's team is involved in multiple collaborative projects focusing on predictive models for chronic kidney disease (CKD) outcomes. KDpredict is a novel prediction model designed to forecast kidney failure and mortality risks over a one- to five-year period from the initial documentation of CKD stage 4 or 3b. It utilizes four or six input variables (age, sex, ACR, eGFR, with or without diabetes and cardiovascular disease) to provide these predictions.

The validated KDpredict tool incorporates sustained eGFR reductions over a minimum of 90 days and addresses the competing risks of death and kidney failure. Future plans include enhancing KDpredict to incorporate updated predictions for individuals returning to the clinic with stage 4 CKD, thereby providing ongoing risk assessments tailored to individual patient trajectories and clinical scenarios.

## KIDNEY PRECISION AND REGENERATIVE MEDICINE

Clinician scientists at the University of Calgary have been using cutting-edge approaches to provide world-class patient care and research for kidney disease. At the Snyder Institute for Chronic Diseases, the Program for Kidney Precision and Regenerative Medicine led by Dr. Daniel Muruve and Dr. Justin Chun consists of several platforms to conduct research and provide leading-edge clinical care for patients with kidney disease.

At the core of the program is the Biobank for The Molecular Classification of Kidney Disease (BMCKD) – a facility that collects and currently holds over 18,000 kidney biospecimens (kidney tissue, cells, blood and urine). The Biobank provides in-depth clinical data and histology slides from all patients with kidney disease in Southern Alberta.

Established in 2012 by Dr. Muruve, the BMCKD is the largest bio-repository of its kind in Canada which integrates patients to world-class technology and research. The BMCKD is a vital resource for local, national and international researchers to use human samples to promote discoveries and validate research results in human tissue. More recently, Dr. Chun, the current

Co-Director of the Human Organoid Innovation Hub at the Snyder Institute for Chronic Diseases (CSM), and his team are reprogramming patient blood cells to stem cells to generate "mini-kidneys" called kidney organoids for disease modelling and the development of drug testing platforms. Over the past year, they developed a core curriculum to train the next generation of stem cell scientists.

The Kidney Organoid and Regenerative Medicine Program has now secured state-of-the-art technologies including Nanostring's spatial transcriptomics platforms called GeoMx and CosMx, which can profile the molecular changes at single-cell resolution for kidney biopsies and patient-derived kidney organoids. With these new tools combined with accessibility to patient samples, the Kidney Precision and Regenerative Medicine initiatives are advancing our molecular understanding of kidney diseases to develop new therapies. Every year, we are getting closer to achieving the long-term goals of finding new cures and building functional kidneys that can be transplanted in patients with kidney failure.

## SEX AND GENDER IN KIDNEY HEALTH RESEARCH: ON THE ROAD TO PRECISION MEDICINE

Kidney health and wellness is not only influenced by biological sex-related factors, but also by sociocultural factors related to gender. However, these factors are poorly incorporated into clinical care at present. An improved understanding of the differences and effects of various sex and gender-related aspects of an individual, both within their physiology and their environment and lifestyle, is crucial for formulation and execution of precision prevention and treatment strategies to optimize kidney health for all.

The Kidney ReACH (Reproductive And Cardiovascular Health) Initiative, a patient-directed research program led by Dr. Sandi Dumanski, is actively addressing this important knowledge gap by generating and mobilizing actionable knowledge

about the effects of sex and gender on multiple important facets of kidney health and disease. Specifically, Dr. Dumanski and her team employ translational research methods to examine the complex interplay between reproductive health, cardiovascular health, and kidney health and disease.

Innovative projects within the Kidney ReACH Initiative seek to understand the mechanistic underpinnings of the bidirectional relationship between numerous reproductive health factors (including reproductive hormones, fertility and fertility treatments) and kidney and cardiovascular health outcomes. Additionally, novel work aims to characterize and further understand a variety of reproductive health abnormalities in individuals living with

chronic kidney disease, focusing on areas such as sexual wellness and function, semen quality, fertility, menstruation and menopause, and the use of contraception and menopausal hormone therapy. Finally, the Kidney ReACH Initiative works closely with its patient partners to develop strategies to assess the reproductive health-related perceptions and priorities of individuals living with chronic kidney disease, as well as the self-identified knowledge gaps and educational needs of their care providers.

The Kidney ReACH Initiative consists of a large, collaborative, and transdisciplinary team that includes patient partners, research trainees, and numerous scientists, physicians, and allied health care providers with diverse expertise in facets

of kidney, cardiovascular, and reproductive health. The initiative engages international collaborations, and its work is supported by the Kidney Foundation and the Canadian Fertility and Andrology Society.

Dr. Dumanski is passionate about development of research capacity, and has embedded a supportive trainee research and mentorship environment within the Kidney ReACH Initiative. An incredible community of 14 passionate and collaborative undergraduate, graduate, and post-graduate trainees, all actively participate in research training and structured mentorship that fosters growth and success.



# Respiratory Medicine

The Division provides comprehensive inpatient and outpatient care to Southern Alberta patients at all four adult acute care sites in Calgary, staffing eight on-call inpatient services and assisting with two others (cystic fibrosis and lung transplant/pulmonary hypertension). Patients referred for assessment are seen in general respiratory clinics as well as subspecialty clinics including asthma, complex inflammatory airways, COPD, cough, interstitial lung disease, hereditary hemorrhagic telangiectasia, dyspnea (malignant pleural effusion), Alberta Thoracic Oncology Program (ATOP) / Interventional Pulmonary Medicine, ALS, pulmonary hypertension, nontuberculous mycobacteria (NTM), TB, chronic ventilation / neuromuscular, sleep, bronchiectasis, cystic fibrosis, and bone marrow transplant.



Dr. Ward Flemons

Dr. Ward Flemons, is in his ninth year as Division Head, practices general respiratory inpatient and outpatient medicine and sleep medicine at the Foothills Medical Centre; he also sees patients in the bone-marrow transplant clinic. Dr. Flemons is the Department of Medicine Vice-Chair, Health Analytics, Quality and Safety and is the Quality and Safety Lead of the Cumming School of Medicine's Precision Health Certificate / Diploma / Masters Program. He is also a Collaborator with Well Doc Alberta and a member of the Cumming School of Medicine's Centre for Mindfulness. Dr. Brandie Walker is the Division's Associate Division Head.

## CLINICAL

The division continues to provide innovative care across the spectrum of respiratory disease. From successful expansion of the nationally renowned Interstitial Lung Disease clinic from SHC to FMC, to the planned opening of an additional Severe Asthma Clinic to serve north east Calgary, we strive to provide specialized services in areas of need. In May 2023, SHC and RGH both launched Connect Care, completing the transition to the new Electronic Medical Record system to all sites within Respiratory Medicine. The division has been updating its Central Access and Triage protocols and establishing strategies to ensure timely and equitable access to respiratory medicine clinics, including urgent access clinics, general respiratory medicine and multiple specialized clinics. The division hosted a successful annual retreat, focusing on the topic of personalized medicine within Respiratory medicine.

## ADMINISTRATIVE

Dr. Richard Leigh continues as Senior Associate Dean, Faculty Affairs, CSM, and Dr. Ward Flemons continues as DOM Vice-Chair,

Health Analytics and Safety. Dr. Alain Tremblay serves as the co-chair of the Alberta Thoracic Oncology Program and Medical Director of the Alberta Lung Cancer Screening Program. Dr. Alex Chee is the Medical Informatics Lead, Ambulatory Medicine for the Calgary Zone, AHS. Dr. Chee also assumed a major Connect Care leadership role in ambulatory medicine. Current Site Leads for the division: Drs. Brandie Walker (FMC), Alex Chee (SHC), Dina Fisher (PLC) and Kristin Fraser (RGH).

## RESEARCH

Division members contributed 33 peer-reviewed publications as first or senior author (30 unique publications) and an additional 80 middle-author publications (65 unique). Members were principal investigators on 10 national or international peer-reviewed funded grants and CoPI on an additional 12 (10 unique) – the majority of these grants were CIHR funded.

Additionally, division members made 27 invited national or international presentations and numerous local or provincial talks. One of our newest

researchers Dr. Christina Thornton has established her independent research lab evaluating the role of the lung microbiome in suppurative lung diseases such as bronchiectasis. She is already supervising a graduate student, a post-doctoral fellow, and has multiple other learners gaining research experience in the lab.

## EDUCATION

Many division members contribute extensively to medical education at multiple levels. Several assumed teaching roles in the new RIME (reimagining medical education) curriculum, including Dr. Stephen Field, Dr. Kristin Fraser, Dr. Tara Lohmann and Dr. Naushad Hirani.

Dr. Fraser led the UME Collaborative Practice Unit, while Dr. Chris Hergott continued to lead the Royal College-accredited Core Respiratory Medicine Training Program and Dr. Charlene Fell, Associate Program Director, maintained her leadership of the competency-by-design assessment. Dr. Sarah Hosseini took over the supervision of the Interventional Pulmonary Medicine Fellowship program from Dr. Hergott.

## KEY CHALLENGES

A key challenge in 2023-24 included providing a full respiratory inpatient admitting service at the PLC due to a shortage of respiratory medicine specialists and because existing respirologists have been supporting the now separate inpatient service for patients with lung transplants / pulmonary hypertension. However, with the successful recruitment of additional respirologists the inpatient admitting service should be operating at full capacity later in 2024. The SHC inpatient admitting and consulting service has had a lack of a stable clinical assistant program, which has complicated overnight inpatient coverage.

## KEY SUCCESSES

The Interstitial Lung Disease (ILD) program has expanded to include clinics at FMC with plans to extend to the PLC in the coming year. The Interventional Pulmonary Medicine group continues its 20-year tradition as the Canadian site to train in this subspecialty, welcoming in a new fellow after a competitive application process. The Division successfully recruited sleep medicine, IPM, Asthma, and ILD respirologists. The division Connect Care superusers (Drs. Joel Chen, Eric Leung, Mike Ramsahai, and Alex Chee, and NP Kevin Huntley) developed numerous 'how to guides' to help members improve their efficiency in using the new system. Division members were also offered training in physician wellness and mindfulness.

## CALGARY BASED INNOVATIVE MULTI MODAL APPROACH TO THE MANAGEMENT OF NON-SURGICAL PATIENTS WITH PULMONARY MYCETOMA

Pulmonary mycetoma, most commonly aspergilloma, is a chronic fungal infection that may be fatal in the absence of therapy. Standard therapy involves surgical resection; however, many patients are not candidates due to poor lung function and presence of comorbidities. As a result, optimal management for these patients remains uncertain. In 2010, Dr. David Stather performed the first endoscopic removal of aspergilloma worldwide<sup>[1]</sup>. Working closely with Dr. Christopher Mody, further interventions were performed, and the procedure evolved into a multimodal approach combining antifungal therapy and endoscopic debridement<sup>[2]</sup>. After Dr. Stather passed away in 2014, Dr. Elaine Dumoulin assumed leadership of the program and continued performing the bronchoscopic

procedure. The program is now led by Dr. Dumoulin and Dr. Christina Thornton<sup>[3]</sup>. Dr. Paul MacEachern has also been trained to perform the debridement. Dissemination of the protocol has expanded with training of Dr. Chrystal Chan, a former Interventional Pulmonary Fellow at UCalgary, now practicing at the U of A.

Over the last decade, 28 patients deemed non-surgical candidates were selected for endoscopic procedure. The current multimodal approach includes a minimum of three months of systemic antifungal therapy beforehand, to reduce complications such as bleeding. Procedures are performed under conscious sedation or general anesthesia. Blunt instruments are used through flexible bronchoscopy to reduce the risk

of bleeding while accessing the cavity and removing the fungal mass. Subsequent antifungal treatment is given for one to three months after the procedure based on medication tolerance. Close clinical follow-up are conducted after endoscopic resection. Across all patients who had debridement (n=28), subjective symptomatic and objective radiographic improvements occurred with no complications observed. Follow up time, to date, has ranged from 3 months to 11 years.

This revolutionary procedure has significantly helped patients in Alberta, with uptake in referrals recently<sup>[4]</sup>. Ongoing research aims to optimize the choice of antifungal therapy to reduce side effects, improve tolerance and to further refine the

bronchoscopic procedure. This multimodal approach has been presented at multiple international conferences and webinars including the Canadian Thoracic Society and American Thoracic Society. To date, Calgary remains the center of reference for this procedure worldwide.

1. Stather DR, Tremblay A, MacEachern P, Chee A, Dumoulin E, Tourin O, Gelfand GA, Mody CH. Bronchoscopic removal of a large intracavitary pulmonary aspergilloma. Chest 2013; Jan; 143 (1):238-241. | 2. Stather DR, Tremblay A, Dumoulin E, et al. A Series of Transbronchial Removal of Intracavitary Pulmonary Aspergilloma. Ann Thorac Surg. 2017;103(3):945-950. | 3. Dumoulin E, Thornton CS. Endoscopic Removal of Pulmonary Aspergilloma in a Nonsurgical Candidate. Ann Am Thorac Soc. 2023; Oct; 20(10): 1516-1520. | 4. Dumoulin E and Thornton CS (co-authors), MacGregor JH, Tremblay A, Chan C, MacEachern PR, Kelly MM, Somayaji R, Parkins MD, Mody, CH. Combined medical-interventional approaches for the management of complex mycetomas: a viable alternative in non-surgical candidates. Accepted for publication in Therapeutic Advances in Respiratory Disease May 2024.

## EMERGING CONCEPTS – THE RESPIRATORY MICROBIOME

Our lungs, with a surface area roughly the size of a tennis court—over 30 times greater than our skin—are in constant contact with the environment, making them highly vulnerable to infectious organisms. Until the last decade, the lungs of healthy humans were thought to be sterile, however lungs are home to a rich flora of microorganisms that collectively are called the lung microbiome (LM). Early research into the LM focused on its potential impact on pulmonary allergies. However, most microbiome research, related to allergies and immunity, focused on the gut and fecal microbiomes due to the long-standing belief of lung sterility.

In 2010, researchers identified the composition of airway microbiota, revealing the presence of a LM. Advances in detection technologies, such as computed tomography (CT) scans, PCR, and 16S rRNA sequencing, have provided new insights into LM. Research has progressively explored the links between the LM and lung diseases, initially focusing on conditions like cystic fibrosis (CF), asthma, and chronic obstructive pulmonary disease (COPD). These studies have shown that the LM of healthy individuals

changes in disease states. However, leveraging this understanding for patient care remains a relatively unexplored field.

Dr. Christina Thornton completed the CSM Leaders in Medicine Program, earning her PhD in 2013 and MD in 2016. After completing her internal medicine (2019) and respiratory (2021) fellowships, she undertook a postdoctoral fellowship with Dr. John LiPuma, international leader in CF research, in Ann Arbor, Michigan. Upon returning in 2022, Dr. Thornton established her own lab in the CSM to investigate the lower respiratory tract microbiome's role in pulmonary diseases such as bronchiectasis. With support from a Snyder Institute Catalyst Grant and in collaboration with Dr. Braedon McDonald (Critical Care Medicine), her lab introduced new technology like Oxford Nanopore Sequencing. This allows for more rapid testing of the LM to better understand how it changes between periods of health compared to periods of disease. The overarching goal is to develop a rapid, user-friendly pipeline for microbiome analysis for clinicians, with the potential for personalized therapeutics as part of a clinical toolkit.



From L to R: Swathi Purighalla (Research Coordinator and Lab Manager); Audrey Simon (Lab Technician); Nicole Boechler (Undergraduate honours student); Dr. Christina Thornton (Department of Medicine); Simar Kaur (MSc graduate student); Shahrano Rukunuddin (Undergraduate honours student); Haley Finlay (Administrative Assistant)

## NONTUBERCULOUS MYCOBACTERIAL (NTM) CLINIC – PLC

Nontuberculous mycobacteria (NTM) are ubiquitous environmental organisms that can cause pulmonary and/or extrapulmonary disease. Incidence and prevalence of NTM disease is increasing globally. Diagnosis and treatment of NTM infections are often complex and need to be individualized as not all patients with positive cultures benefit from treatment. When treatment is administered, multiple drugs are required for long durations, which require regular monitoring for side effects and follow up for response to treatment. Those who do not need treatment initially are monitored for changes in the disease.

The (NTM) clinic, is a unique subspecialty clinic with a multi-disciplinary team. Respiratory medicine and infectious disease physicians, specialist nurses and pharmacists collaborate to assess and treat patients with both pulmonary and extrapulmonary NTM infections.

The Calgary NTM program is a leader in establishing comprehensive subspecialty clinical care. It is unique in Canada, and therefore has been used as a model for other centres developing similar NTM programs. The NTM clinic provides patient and caregiver education, treatment, management and follow up of NTM patients. The clinic coordinates care with allied

health, including chest physiotherapists and audiologists. NTM physicians also provide consults for inpatients at all acute care sites in Calgary and follow NTM patients on therapy while admitted to hospital. Phone consultations are provided for Southern Alberta.

As part of an academic centre, management is both evidence-based and state-of-the-art. Complex cases are reviewed in regularly scheduled multidisciplinary case conferences with experts across Canada. The NTM clinic is actively involved in local, national and international research, to advance care and optimize outcomes for NTM patients. Calgary is the primary site for the Comprehensive Canadian Registry of Bronchiectasis and NTM infection patients. Patients are offered opportunities to participate in the Registry as well as other research studies.

**NTM team:** Respiratory Medicine NTM specialists: Drs. Julie Jarand (Medical Director), Dina Fisher, Stephen Field, Rachel Lim and Leila Barss. Infectious Disease NTM specialists: Drs. Brett Edwards and Chris Lata. In addition to the multidisciplinary team: three case-managing registered nurses with expertise in NTM infections, part-time pharmacy support, LPN and administrative support.

**1 ADVANCED FELLOW**  
(Interventional Pulmonary Medicine)

**6 SUBSPECIALTY TRAINING**  
**PROGRAM RESIDENTS**  
PGY4: 3 | PGY5: 3 |

**26 APPLICATIONS FROM PROSPECTIVE SUBSPECIALTY TRAINING PROGRAM RESIDENTS**



# Rheumatology

The Section of Rheumatology consists of 14 AMHSP physicians and 25 Fee-For-Service community physicians who provide an integrated musculoskeletal program of clinical care using a patient centered collaborative care model with rheumatologists, nursing and Allied Health professional staff in Southern Alberta. Division is driven on the mission of "Controlling the impact of rheumatic disease with the Right treatments for the Right patients at the Right time, and fostering a culture of education, research and innovation."



Dr. Gary Morris  
(Interim/Acting Head)



Dr. Maggie Larche  
(Incoming Head)

The Section of Rheumatology was formed in 1975 and is the oldest within the Department of Medicine. Dr. Gary Morris took on the interim division head role until July 2024, when Dr. Maggie joined us from McMaster University and assumed the role. Dr. Larche is a clinician leader and researcher who focuses in the areas of scleroderma and point-of-care MSK ultrasound.

## CLINICAL

The Division of Rheumatology continues to experience growth, particularly among community-based physicians who handled many of the 6,171 referrals received by rheumatology central triage over the past year. Most rheumatology trainees choose to stay and practice in Calgary, and we are attracting rheumatologists from across Canada and internationally. This is due to Calgary's innovative clinical models, such as specialty clinics, and its prominent researchers.

Academic rheumatologists in Calgary provide inpatient coverage when on call, while the Division acknowledges the vital role of community-based colleagues who manage outpatient on-call duties and the Specialist Link program, significantly enhancing the divisions capacity to deliver care.

## ADMINISTRATIVE

Dr. Gary Morris held the acting Division/Section Head of Rheumatology role until July 2024, when Dr. Maggie Larche assumed the role. Dr. Claire Barber continued as the Scientific Director of the Bone and Joint Strategic Clinical Health Network. Dr. Cheryl Barnabe assumed the role of Director of the McCaig Institute, and Dr. May Choi was named Associate Director of Mitogen Advanced Diagnostic Laboratories.

## RESEARCH

The Division boasts a talented group of primary researchers, solidifying Calgary's position as a leader in rheumatology research in Canada.

Over the 2023–2024 academic year, their work resulted in 79 peer-reviewed publications, 81 abstracts, posters,

and presentations, and 30 new peer-reviewed research grants.

The Division is proud to host two prestigious university chair positions: Dr. Cheryl Barnabe as the JE Arthur Child Chair and Dr. A. Clarke as The Arthritis Society Chair.

## EDUCATION

The Division continues to excel in education and training.

All PGY-5 residents, Drs. Kobza, Krustev, and Powell, successfully passed their Royal College Rheumatology exams.

Educational initiatives during the year included the Academic Education Day in Rheumatology on November 3, 2023, and ongoing Rheumatology Rounds, which occur throughout the year.

Graduating PGY-5s have exciting plans for further specialization or practice: Dr. Kobza will pursue additional training in psoriatic arthritis and spondylarthropathies at Hôpital Cochin in Paris, Dr. Krustev will undertake a myositis fellowship at Johns Hopkins in Baltimore, and Dr. Powell will join Memorial University in Newfoundland as a staff rheumatologist.

## KEY CHALLENGES

The key challenge facing the division is the ever increasing clinical workload, with the division working exceptionally hard to ensure Albertans receive the care they need.

## KEY SUCCESSES

The division has achieved significant accomplishments this year. Notably, the Department of Medicine successfully recruited Dr. Maggie Larche as the incoming section/division chief as of July 2024. Dr. Larche will focus on expanding the use of musculoskeletal (MSK) ultrasound and advancing scleroderma research in Calgary.

Through the dedicated efforts of Dr. Steven Thomson and the generous support of the Calgary Health Foundation, the division has also acquired a new ultrasound machine. This advanced equipment is being utilized in multiple areas:

- **Clinical Work:** aiding in the detection of subclinical synovitis and the diagnosis of giant cell arteritis,
- **Education:** enhancing anatomy education and providing hands-on training in MSK US.
- **Research:** facilitating the development of protocols for diagnosing vasculitis.

## NURSE-LED PRESCRIBING STANDARDS

Dr. Claire Barber is developing nurse-led prescribing standards for rheumatology for the province. The goal of this work would be to expedite patient care without the requirement of a physician's time.

Initial steps included working with the former Bone & Joint Strategic Health Network and leadership in rheumatology provincially to develop a nurse-led prescribing protocol for renewal of disease modifying treatments and management of inflammatory arthritis flares. Work is underway with rheumatology leaders to implement new models of care in rheumatology to address workforce issues.

## GIANT CELL ARTERITIS FAST TRACK CLINIC

The rheumatology division has set up a Giant Cell Arteritis fast track clinic. The goal is to be able to diagnose Giant Cell Arteritis faster, and without the use of a biopsy, which is currently difficult to obtain within AHS.

This specialized clinic is growing out of the increasing number of division members with expanding ultrasound experience, including Dr. Susan Barr, Dr. Aurore Fifi-Mah, Dr. Stephanie Garner, and Dr. Steven Thomson. A special thanks to Dr. Garner for obtaining funding for this through the Department of Medicine Clinical Analytics Grant.

## PATIENT-INITIATED FOLLOW UP

Patients with rheumatic conditions are often followed by rheumatologists for life. Visits are typically scheduled every 6-12 months.

A Patient-Initiated Follow-Up Model for patients with Rheumatoid Arthritis (Appointments By Choice, ABC) has been implemented to provide more patient-centered care and better align care with patient needs.

The model has been implemented at the Richmond Road Rheumatology Clinic in a pharmacist-led model to support continuity of care and medication safety.

In the community, Dr. Cristina Moran-Toro leads a model of patient-initiated follow-up in her general rheumatology practice, for patients with stable rheumatic diseases. This new model of care has increased Dr. Moran-Toro's capacity to see new patients, and at the same time provided easier access for existing patients to be re-assessed if they have flare ups of their disease.

The division is working to spread and scale these models.



# Transplant Medicine

The Section of Transplant Medicine has 38 (12 primary, 26 secondary, 19 AMHSP) members, consisting of expert physicians from multiple specialties providing comprehensive care to patients with end-stage heart, lung, kidney and liver failure prior to and after solid organ transplantation. Specialties include cardiology, respirology, nephrology, hepatology, infectious diseases, and dermatology. Together we work within the multidisciplinary care team to provide inpatient and outpatient management for these complex patients.



Dr. Debra Isaac

Dr. Debra Isaac has been the Division Head of Transplant Medicine since its inception in 2021 and has served as Medical Director of the Southern Alberta Transplant program (ALRA) since 2018. She is a Clinical Professor of Medicine, with clinical expertise in Advanced Heart Failure / Cardiac Transplantation and Global Health Initiatives. Dr. Isaac will retire from this position on July 1st, 2024. The incoming Section Head is former deputy Division Head, Dr. Mitesh Thakrar. Dr. Thakrar is Clinical Associate Professor of Medicine with expertise in lung transplantation and pulmonary hypertension.

## CLINICAL

We provide inpatient care at Foothills Medical Centre (FMC) and Peter Lougheed Centre (PLC), as well as multidisciplinary specialty outpatient clinic care in the North Tower of FMC.

Transplantation activity and patient acuity has continued to increase, with record numbers of transplants performed and patients managed both in the inpatient and outpatient settings. Special focus areas include transition care for adolescents with solid organ transplantation as they move from pediatric to adult clinic management, as well as combination specialty clinics for patients with multi-organ comorbidities.

A more structured program for listing and management of pancreas transplant patients is under development, with formal involvement and collaboration with our endocrinology colleagues. Efforts are underway to better integrate and support allied physician specialists in Infectious Diseases, Dermatology, Endocrinology / Bone Health, and Psychiatry with the goal of improving access to and management of transplant-specific care for our patients.

## ADMINISTRATIVE

Given the diversity of the specialties within the Section of Transplant Medicine, leadership is provided by individual Solid Organ Medical Leads:

- **Renal Transplant**  
Dr. Jeff Ma and Dr. Emilie Chan
- **Living Donor Program**  
Dr. Wenjie Wang
- **Liver Transplant**  
Dr. Matt Sadler
- **Lung transplant**  
Dr. Doug Helmersen
- **Heart Transplant**  
Dr. Jonathan Howlett

Dr. Mitesh Thakrar served as deputy Section/Division Head, Deputy Medical Director of ALTRA, and the Department of Medicine Site Lead –for PLC.

Dr. Debra Isaac served as the Section/Division Head for the Division of Transplant Medicine and Medical Director of ALTRA. We are strongly supported by the Executive Director of the Southern Alberta Transplant Program, Ms. Jennifer Crysedale, who has been an invaluable colleague, advocate, and partner in the ongoing development and strengthening of our programs.

## RESEARCH

Our research committee, led by Dr. Ngan Lam, continues to engage in clinical and basic science research within the diverse specialty areas of transplantation. The committee works to enhance dissemination of their work within the section, optimize opportunities for collaboration, and facilitate the development of research questions while mentoring colleagues.

In collaboration with the Alberta Transplant Institute, we are in the process of identifying key research priorities in donation and transplantation and securing resources to deliver on these priority areas. Current research focus areas of our members include living kidney donation and donor health (Dr. Ngan Lam), epidemiology in heart failure and cardiac transplantation (Dr. R. Miller), Health Analytics and Safety (Dr. Mayur Brahmania), among others.

Over the past year, our primary members have published >20 peer reviewed papers, presented numerous abstracts, and hold grant funding of over \$800,000.

## EDUCATION

Our members continue to strongly support and contribute to medical education at both the undergraduate and post-graduate level, with several holding formal educational positions within the Cumming School of Medicine UME and PGME programs (Drs Kelly Burak, Kevin McLaughlin, Lea Harper, Jonathan Liu).

Our Education Committee is finalizing and implementing a Royal College AFC fellowship in Solid Organ Transplantation for nephrology, led by Dr. Jason Bau and Dr. Kevin McLaughlin, and for pulmonology, led by Dr. Lea Harper. Dr. Harper was also instrumental in formalizing a Solid Organ Transplantation elective for Internal Medicine residents.

Dr. Kristin Lyons is program director for the Advanced Heart Failure fellowship, which includes cardiac transplantation.

Transplant Medicine Grand Rounds were initiated over the last year, focusing on topics pertinent to all specialties within transplantation.

## KEY CHALLENGES

Amid resource constraints, health care systems changes, as well as the increasing patient volumes and patient complexity, our members have had to work very hard to maintain a high standard of care for our patients

We continue to actively collaborate with operations teams and our multi-disciplinary partners to improve efficiencies and advocate for improved resources. Recruitment and retention of transplant specialty physicians and our multidisciplinary colleagues remains an essential component to ensure the future of state-of-the-art solid organ transplant management.

## KEY SUCCESSES

The Division of Transplant Medicine continues to see improved alignment of operational and academic programs within transplantation.

Education, Research, and Clinical Practice Steering committees provide opportunities for collaboration, advocacy, and identification of shared priorities, ideas, challenges, and solutions across medical transplant specialties.

The Quality Improvement committee, led by Dr. Mayur Brahmania and representing all solid organ transplant groups, is fostering a culture of quality improvement with the Division of Transplant Medicine and the Southern Alberta Transplant Program. This effort is supported by dedicated IT analysts to identify and evaluate key performance indicators. Additionally, engagement sessions have been held for the transplant care team in efforts to improve transplant care delivery through shared understanding, communication, and team-work.

## INNOVATIONS IN KIDNEY TRANSPLANT CARE AND RESEARCH

For eligible patients with end-stage kidney disease, transplantation is the preferred treatment option due to improved patient survival, better quality of life, and lower healthcare costs compared to dialysis. Dr. Ngan Lam is a Professor and Clinician-Scientist in the Divisions of Transplant Medicine and Nephrology with expertise in the use of integrated healthcare databases. Her program of research aims to better understand health outcomes and improve patient experiences for kidney transplant recipients and living kidney donors.

One of Dr. Lam's primary research interests is improving drug safety for kidney transplant recipients. Her research has shown that kidney transplant recipients are at high risk of polypharmacy, with an average of ~12 different medications per recipient. Using data from Alberta, she has described potentially inappropriate prescriptions to recipients, including non-steroidal anti-inflammatories (NSAIDs), antibiotics (such as clarithromycin, which can increase the risk of calcineurin inhibitor nephrotoxicity), and proton pump inhibitors (PPIs). This has resulted in PPI deprescribing initiatives for recipients at 6 months post-transplant for those

without an indication for ongoing use. She has also led and collaborated on local kidney transplant protocols including the use of Hepatitis C viremic donors, post-transplant follow-up care, and management of the failing graft.

As Chair of the Division of Transplant Medicine's Research Committee, Dr. Lam strives to advance clinical trials in transplant recipients. This year, she served as the site lead for a national CIHR-funded randomized controlled trial that enrolled kidney transplant recipients from Southern Alberta into a clinical trial —the first such trial in over a decade.

Dr. Lam is also an advocate for improving follow-up care and outcomes for living kidney donors. She has used administrative databases from Alberta, Ontario, and the United States, to study patient-important clinical events following living kidney donation, including kidney function, pregnancy complications, and death. Her work has improved the informed consent process for all potential living kidney donors and guided follow-up care practices for previous living kidney donors. Currently, only 1 in 4 living kidney donors in Alberta are

receiving the post-donation follow-up care recommended by clinical practice guidelines. Dr. Lam's research has informed the implementation of a one-year post-donation follow-up visit to guide longer-term follow-up care. She also advocated for prior living kidney donors to have priority status on the deceased donor waiting list should they ever need a kidney transplant in their lifetime. Thus, living kidney donors can be reassured that their kidney health and well-being is a top priority.

Dr. Lam's future work aims to improve the donor and recipient candidate experience through an innovative project called RADIANT (Recipients and Donors in Assessment Navigation Tool). RADIANT will integrate Connect Care with the patient portal (MyAHS Connect) to create a platform that potential donors and recipients can access to track their progress throughout the evaluation process. In a digital era where customers can track everything from their mailed package to their pizza delivery, this would be an opportunity for donor and recipient candidates to navigate the complex assessment pathway.

## TRANSPLANT WELLNESS PROGRAM (TWP)

2023 saw the successful implementation of the Transplant Wellness Program, an exercise-based behaviour change intervention that aims to improve the well-being of solid organ transplant patients. The program aims to improve candidacy for transplant of potential organ recipients, allowing access to this life-saving and life-changing therapy to more patients, as well as improving outcomes post-transplantation and reducing post-transplant complications relating to frailty and comorbidities. The program includes an 12-week Exercise Intervention (EI) with wellness behaviour change support, followed by maintenance programming, delivered either pre- or post-transplant. The TWP team tailors programming to meet participants' needs and support their physical and psychosocial well-being both before and

after transplant surgery. Maintenance resources including group exercise classes, group wellness behaviour change support, and educational webinars offered by the TWP and other programs. Program leadership is provided by division of transplant medicine members Dr. Stefan Mustata (Medical Director) and Dr. Kelly Burak (Academic Director), as well as Dr. Maneka Perinpanayagam (Senior Research Program Manager), Dr. Nicole Culos-Reed (Senior Research Lead / Health Coach) and Vanessa Bahry (Lead Kinesiologist). **Read more about the Transplant Wellness Program on the feature article earlier in the report.**

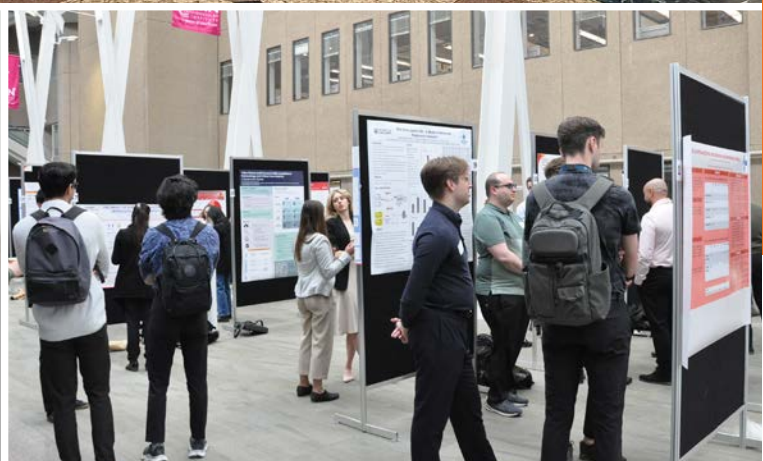
2\*

### ADVANCED FELLOW (2024 ONWARDS)

Transplant Nephrology Fellow - Dr. James Kiberd, commences July 1, 2024

Advanced Heart Failure / Transplant Fellow, Dr. Zainab Abdul Salam - commences July 1, 2024





# I nternal Medicine Residency Program (IMRP)

During the 2023-24 academic year the Core Internal Medicine Residency Program (IMRP) continued to work on our ongoing challenges, with numerous successes to celebrate as well. Dr. Lam and the Research Committee held a very successful Resident Research Day, during which it is always rewarding to see updates and results of projects residents are participating in. We have been fully engaged with Continuous Quality Improvement processes, we had a successful PGY1 entry CaRMS Match, and - with the help of the Department of Medicine, faculty speakers, residents and administrators - we held an out-of-town overnight retreat in Canmore.

## OUR TRAINEES

We have 35 PGY1's; 38 PGY2's; 37 PGY3's and 3 PGY4's. We typically accept: 30 Canadian Medical Graduates, up to 6 Alberta International Medical Graduates and 1-2 transfer trainees per year.

We recruit Canadian trainees from coast-to-coast, and we are highly regarded for our POCUS, Procedural Skills and Simulation programs. We are also well known for the collegiality between our trainees and the department members. We have international trainees who have attended medical schools from all over the world. This past CaRMS cycle we received 480 applications for our 36 positions, we interviewed 320 people and conducted 640 virtual interviews over 4 days and we matched 30 Canadian Medical Graduates and 6 Alberta International Medical Graduates. IMRP is grateful for and appreciates the support our or physician members, IMRP residents and the administration team for helping make this a huge success.

## FELLOWSHIPS

Most of our trainees pursue residency's in subspecialty programs during the R4 Medical Subspecialty Match. **For the 2024 MSM, we had local trainees match to the following:**

**Allergy & Immunology:** 1 (Toronto)  
**Cardiology:** 2 (Calgary, Edmonton)  
**Endocrinology:** 5 (Calgary, McGill, Ottawa, Western)  
**Gastroenterology:** 4 (Calgary, McGill, McMaster)  
**General Internal Medicine:** 8 (Calgary, Queens, McMaster, UBC, Toronto)  
**Hematology:** 3 (Calgary, Edmonton, UBC)  
**Infectious Diseases:** 2 (Calgary, UBC)  
**Medical Oncology:** 3 (Calgary, UBC)  
**Nephrology:** 3 (Calgary)  
**Palliative:** 2 (Calgary, UBC)  
**Respirology:** 2 (Calgary, McGill)  
**Rheumatology:** 1 (Calgary)

19 of the 39 trainees (49%) who entered the Medical Subspecialty Match have remained in Calgary after their core IM training was complete.

## LEADERSHIP TEAM



The Residency program is fortunate to have the strong support and leadership of **Dr. Jayna Holroyd-Leduc**. We have been able to pursue many important initiatives as a result of her support and mentorship.



**Program Director: Dr. Paul Gibson:** Dr. Gibson assumed the leadership of the IMRP in June 2021. He has been able to bring forth lessons from his 20+ years of clinical work and teaching, along with his extensive leadership experience, to support and promote many positive changes in the program.

**Associate Program Directors:** **Dr. Alejandra Ugarte-Torres** (RGH-also Curriculum Committee Chair & OSCE Lead), **Dr. Edwin Cheng** (PLC, Trainees in Academic Difficulty); **Dr. Jolene Haws** (SHC, PGY-4 Program); and **Dr. Maria Bacchus** (FMC, Scheduling)



**Assistant Program Directors:** **Dr. Mike Walsh** and **Dr. Janeve Desy** (PO and Procedural Skills Leads); **Dr. Ghazwan Altabba** (Simulation Lead); **Dr. Ngan Lam** (Research Director & EDI); and **Dr. Darren Burback** (Competence by Design).



The Lead Medical Residents (LMR's) for 2023-24: **Dr. Faisal Jarrar**, **Dr. Adina Landsberg**, **Dr. Christina Ray** and **Dr. Shivani Tauh**. New LMR's will be selected and announced in October 2024 and will start on January 1, 2025.



In addition, there are numerous groups and committees that help with the day-to-day support of the program including: the Curriculum Committee, the MTU Committee, the Assessment Committee, the Research Committee and the Wellness Committee. There has also been strong administrative support with Stacey Dickinson (Team Lead), Trudi Jersak, Lynette Lipinski, Edita Skoric and Arshpreet Hansra

## PROGRAM HIGHLIGHTS



**Equity & Diversity:** With the help of Dr. Alejandra Ugarte-Torres, the IMRP has developed a very active Equity and Diversity Group that has touched on aspects of bystander interventions, implicit bias training workshops, EDI Grand Rounds, and inclusive language and imagery guidelines for presenters within the Cumming School of Medicine. We continue to work to ensure our learning environments are supportive and safe for all learners and faculty.



**Wellness Initiatives:** The IMRP and the Department of Medicine continue to focus on Resident Wellness throughout the year, and we have a very strong Wellness Committee with a group of dedicated residents led by Dr. Janeve Desy. Planned activities included hikes, skiing, pub nights, ice cream rounds, CaRMS Socials and Resident Retreat events.



**Point of Care Ultrasound (POCUS):** Dr. Michael Walsh is the leader of POCUS/ Procedural Skills for the IMRP. Our residents are very fortunate to have opportunities for POCUS and procedural skills training which is taught by internationally-recognized preceptors. Dr. Walsh led the review and updating of the IMRP Resident Procedures Policy, aiming to ensure the safety of trainees and patients while promoting opportunities to master these techniques. Individual department members are encouraged to supervise/teach medical procedures to IM residents.



**Simulation Program:** Our simulation program is recognized nationally and continues to have strong leadership by Dr. Ghazwan Altabbaa at RGH and Dr. Alejandra Boscan at SHC. Activities include a Transition-to-Senior curriculum, weekly simulation scenarios for trainees at RGH, a Simulation OSCE, as well as a Safety Curriculum.







# Annual Awards Celebration at the Palliser Hotel

In November 2023, we celebrated the department member accomplishments and awards over the previous year at our Annual Awards Celebration, this year taking place at the Fairmont Palliser Hotel, Calgary. We also celebrated our retirees from the department.

## AWARD WINNERS

### INTERNAL MEDICINE CLERKSHIP: UNSUNG HERO'S AWARDS

Dr. Christine Banage  
Dr. Michelle Jung

### IMRP FACULTY AWARDS

**Rookie of the Year Award:**  
Dr. Robert Hurowitz  
**Silver Tongue Award:**  
Dr. Michael Walsh  
**Silver Finger Award:**  
Dr. Michael Bosch  
**Golden Bull Award:**  
Dr. Amber Fripp  
**Repeat Offenders Award:**  
Dr. Ben Wilson  
**Work Life Balance Award:**  
Dr. David Ward & Dr. Brett Edwards  
**Research Perceptor Award:**  
Dr. Alexander Leung

### Ectopic Award:

Dr. Andre Ferland

### Rural Teaching Experience Award:

Dr. Tavish Barnes  
**Allied Health Award**  
Kristine Ferguson

### IMRP RESIDENT AWARDS

**Benevolent Heart Award:**  
Dr. Faraz Sachedina  
**Resident Professionalism Award:**  
Dr. Emma Spence  
**Resident Medical Education Award:**  
Dr. Chad Kimmett  
**Resident Wellness Award:**  
Dr. Chloe Lim  
**Resident Research Award:**  
Dr. Tri Dinh  
**Resident Leadership Award:**  
Dr. Nicole Brockman & Kayleigh Ducas-Mowchun

### DEPARTMENT OF MEDICINE: SITE SPECIFIC CLINICAL EXCELLENCE AWARDS

**Dr. John Dawson Award for Clinical Excellence at FMC:**  
Dr. Brandie Walker  
**Dr. Howard McEwen Award for Clinical Excellence at PLC:**  
Dr. Shane Devlin  
**Dr. Terry Groves Award for Clinical Excellence at RGH:**  
Dr. Michelle Persuad  
**Dr. Martin Atkinson Award for Clinical Excellence at RRDTC:**  
Dr. Steven Thomson  
**Dr. Tom Enta Award for Clinical Excellence in the Community:**  
Dr. Susan Poelman

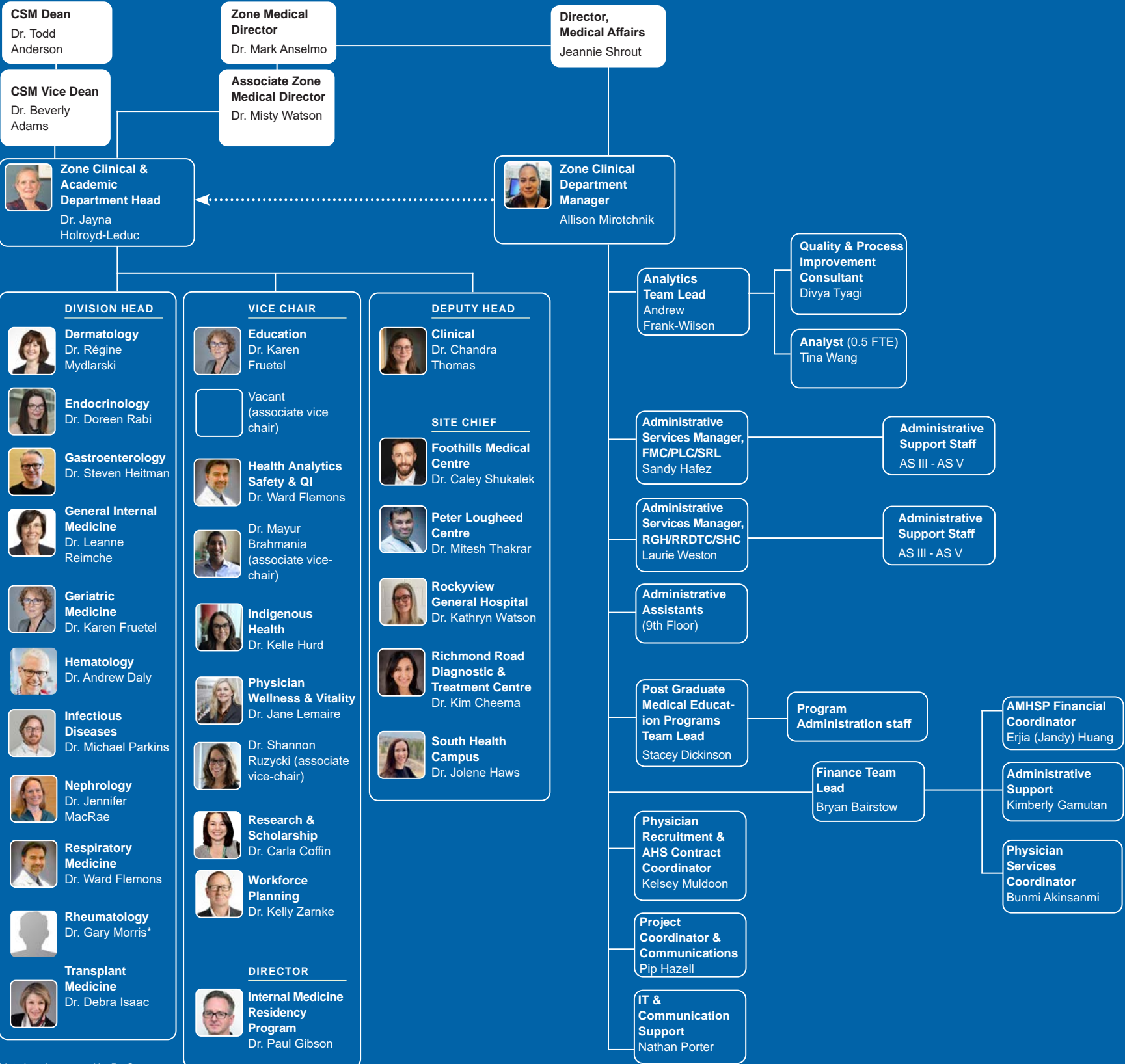
### DEPARTMENT OF MEDICINE: SPECIAL DEPARTMENTAL AWARDS

**Dr. Brenda Hemmelgarn Professionalism Award:**  
Dr. Chandra Thomas  
**Team Builder of the Year Award:**  
Dr. Kirstie Lithgow  
**Patient Safety and Quality Improvement Award:**  
Dr. Aziz Shaheen  
**Dr. John Conly Innovation Award:**  
Dr. Sana Ghaznavi  
**Equity, Diversity and Inclusion Award:**  
Dr. Jori Hardin  
**Early Career Award:**  
Ranjani Somayaji  
**Dr. Jane Lemaire Award for Physician Wellness:**  
Dr. Paula Pearce



## Organization chart

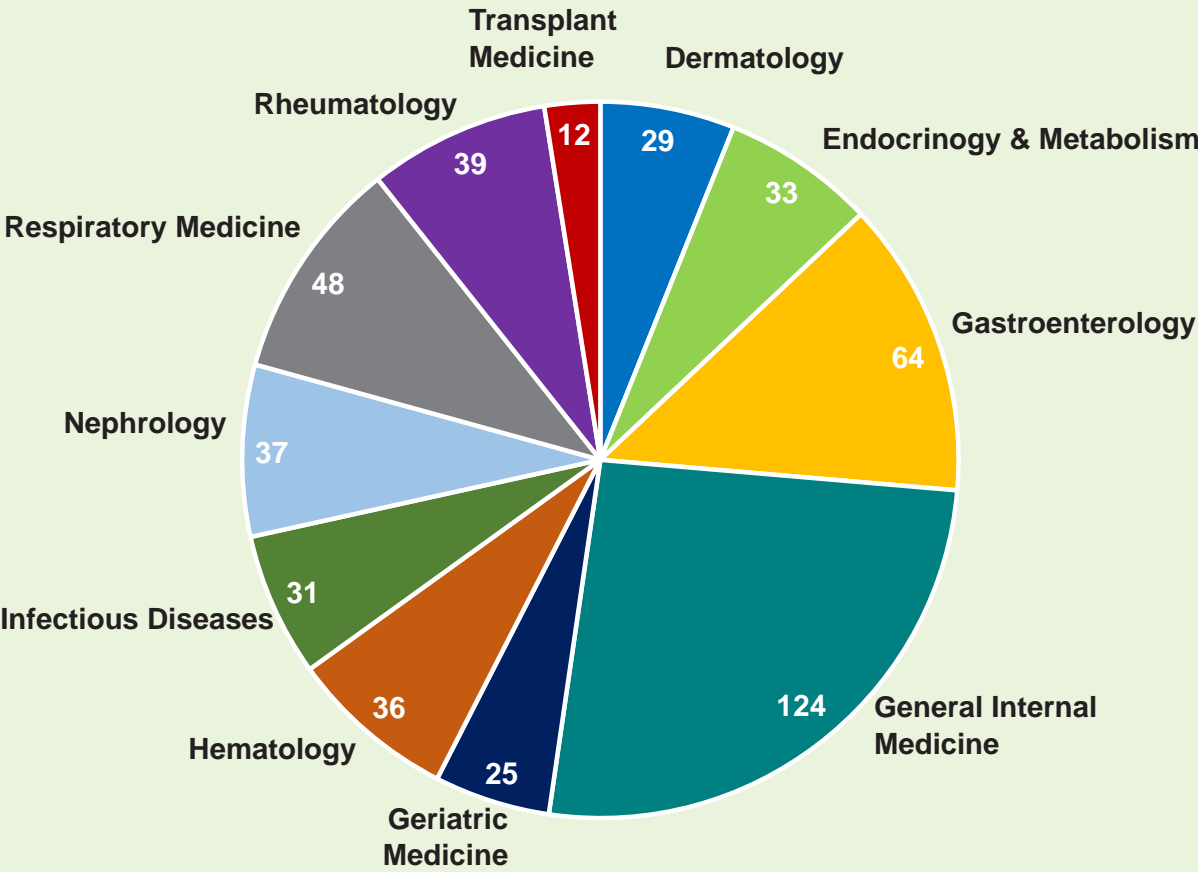
AS OF MARCH 2024



\* Interim role assumed by Dr. Gary Morris on Jan 1, 2023 until July 2024 (Dr. Maggie Larche will then take on the Section Head Role)

## Membership Data

DEPARTMENT OF MEDICINE SUBSPECIALTIES PRIMARY APPOINTMENTS



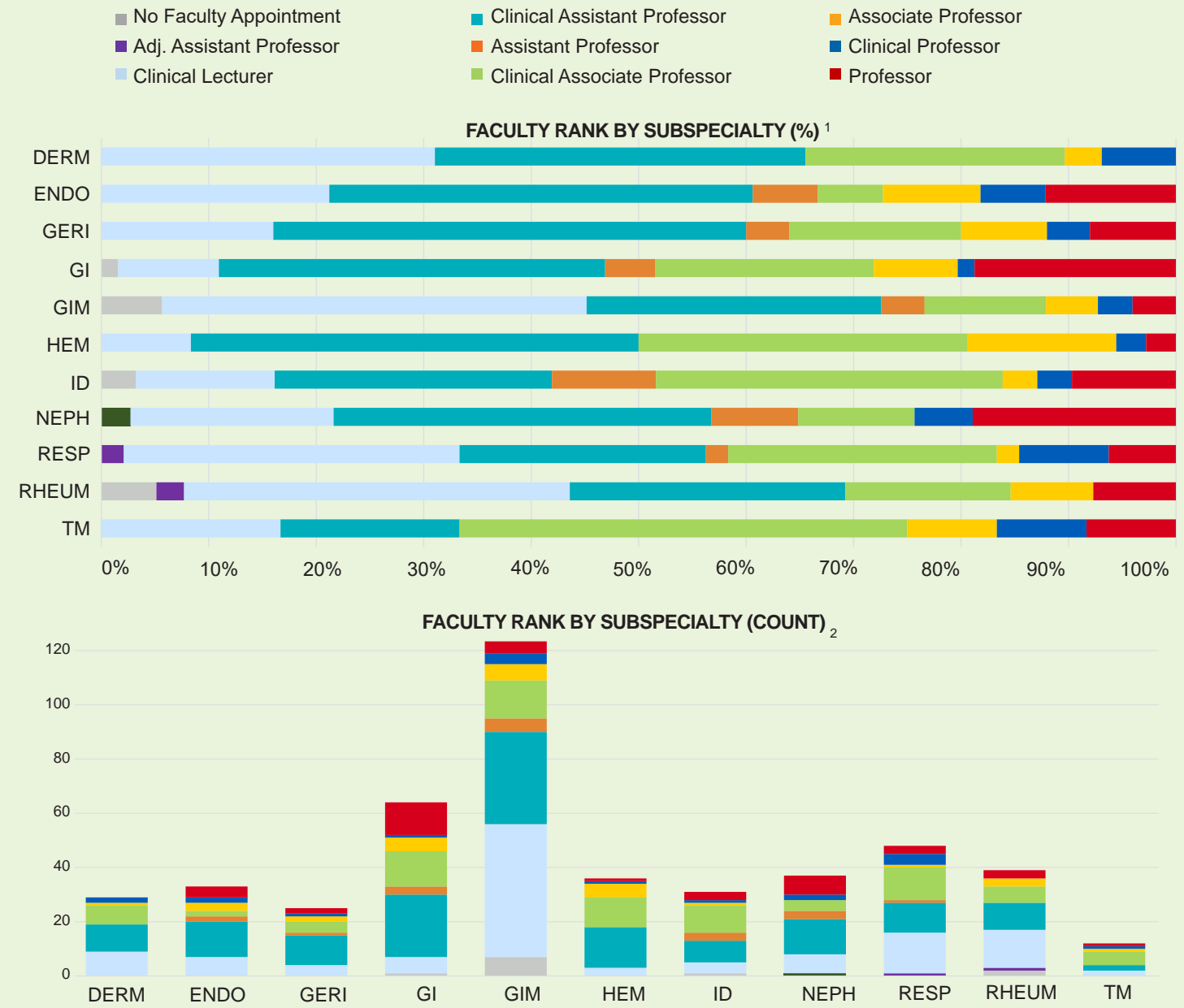
DEPARTMENT MEMBERS WITH A PRIMARY APPOINTMENT

DERM	ENDO	GI	GIM	GERI	HEM	ID	NEPH	RESP	RHEUM	TM	Grand Total
29	33	64	124	25	36	31	37	48	39	12	478

Source: Department of Medicine Gizmo  
NOTE: This is primary appointments to the DOM

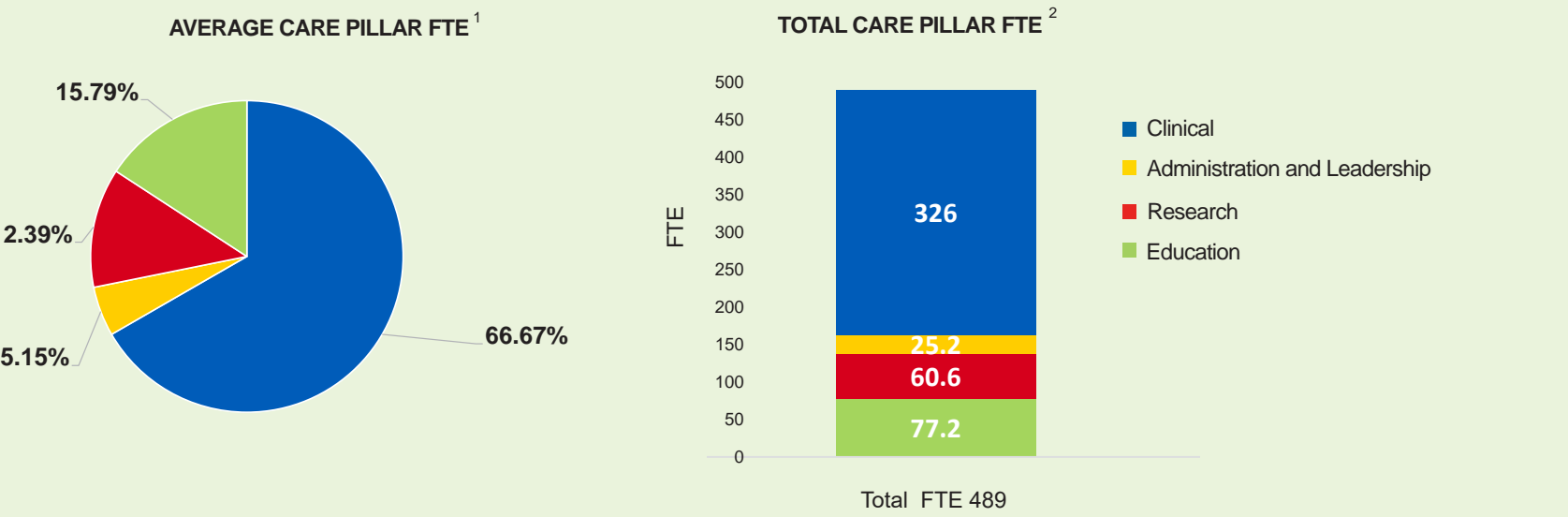


Faculty Appointment Data

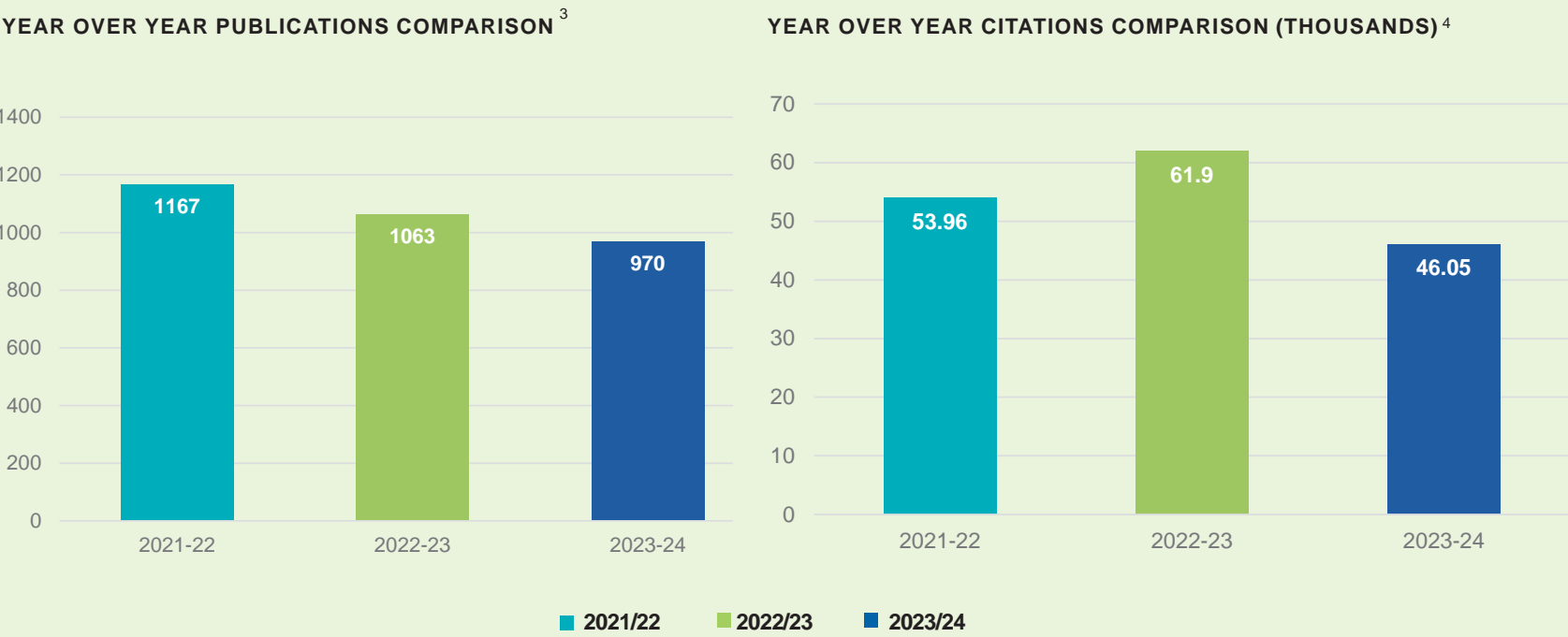


Faculty Rank	DERM	ENDO	GERI	GI	GIM	HEM	ID	NEPH	RESP	RHEUM	TM	Grand Total
No Faculty Appointment				1	7		1			2		11
Adj. Assistant Lecturer								1				1
Adj. Assistant Professor									1	1		2
Clinical Lecturer	9	7	4	6	49	3	4	7	15	14	2	120
Clinical Assistant Professor	10	13	11	23	34	15	8	13	11	10	2	150
Assistant Professor		2	1	3	5		3	3	1			18
Clinical Associate Professor	7	2	4	13	14	11	10	4	12	6	5	88
Associate Professor	1	3	2	5	6	5	1		1	3	1	28
Clinical Professor	2	2	1	1	4	1	1	2	4		1	19
Professor		4	2	12	5	1	3	7	3	3	1	41
Grand Total	29	33	25	64	124	36	31	37	48	39	12	478

ISA & FTE Data



Publication Data



1. Source: Department of Medicine Gizmo  
2. Source: Department of Medicine Gizmo  
3. Publications provided by UCalgary Analytics extracted from Scopus and Scival API for the DOM. The methodology for retrieving these stats has changed, therefore a year over year comparison is provided all using this new methodology. Data extracted: 9 Oct, 2024.  
4. Actual Citations made during the year of all publications. These are any publications linked to the current DOM members published in all years 2021-2024. For example: amount of citations in 2024 from papers from the last 3 years. Data extracted: 9 Oct, 2024

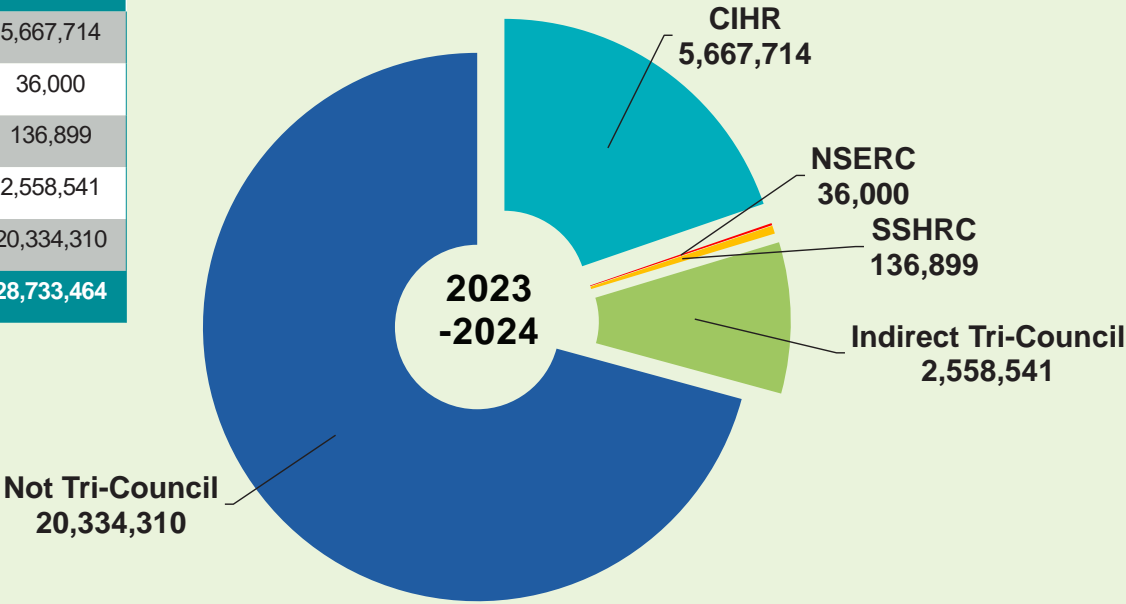
1. Source: Department of Medicine Gizmo  
2. Source: Department of Medicine Gizmo



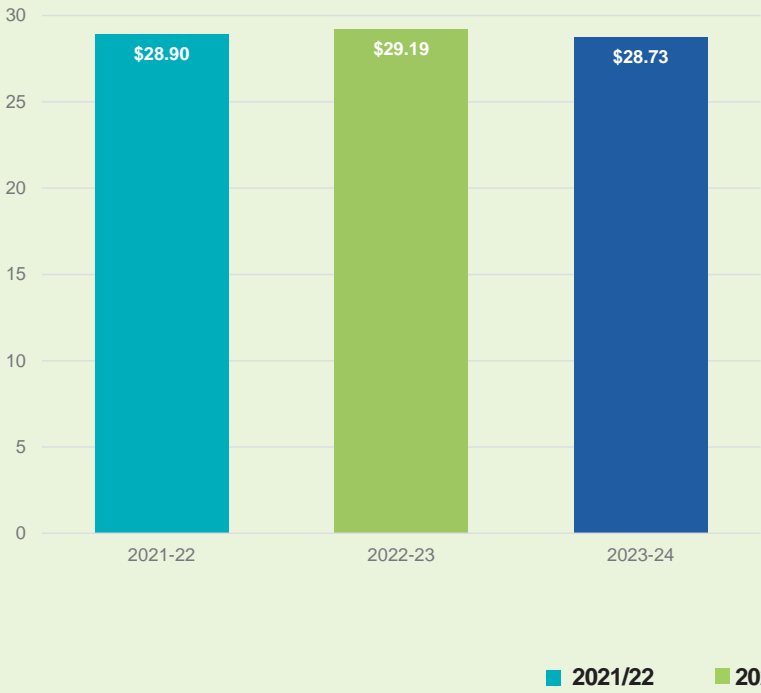
Research Revenue Data <sup>1</sup>

RESEARCH REVENUE BREAKDOWN COMPARISON YEAR OVER YEAR

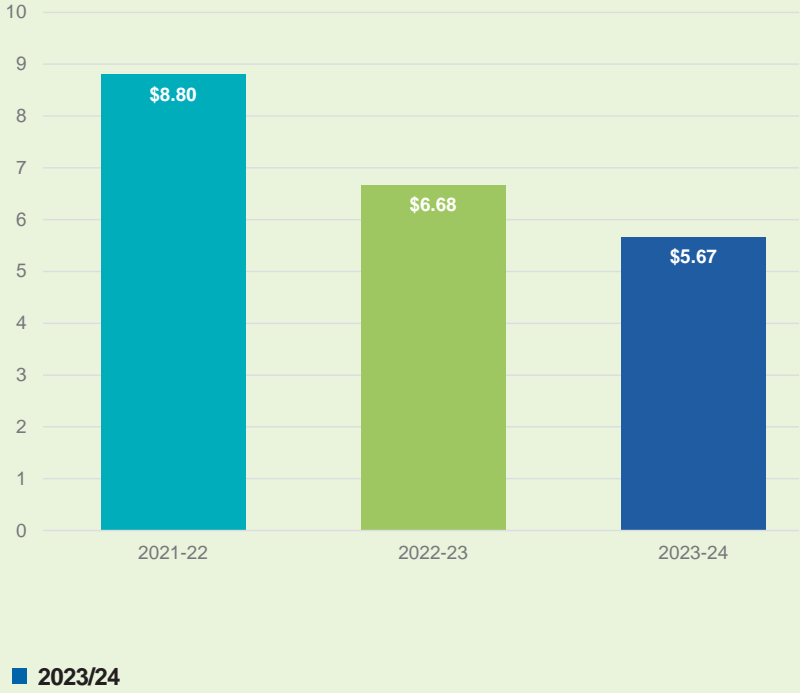
Revenue Type	2021-2022	2022-2023	2023-2024
CIHR	8,772,913	6,689,690	5,667,714
NSERC	36,000	36,000	36,000
SSHRC	158,056	357,291	136,899
Indirect/Tri-Council <sup>2</sup>	2,003,512	3,258,092	2,558,541
Not Tri-Council	17,109,999	20,190,499	20,334,310
Grand Total	28,080,481	30,531,573	28,733,464



TOTAL RESEARCH REVENUE (MILLIONS)  
COMPARISON YEAR OVER YEAR



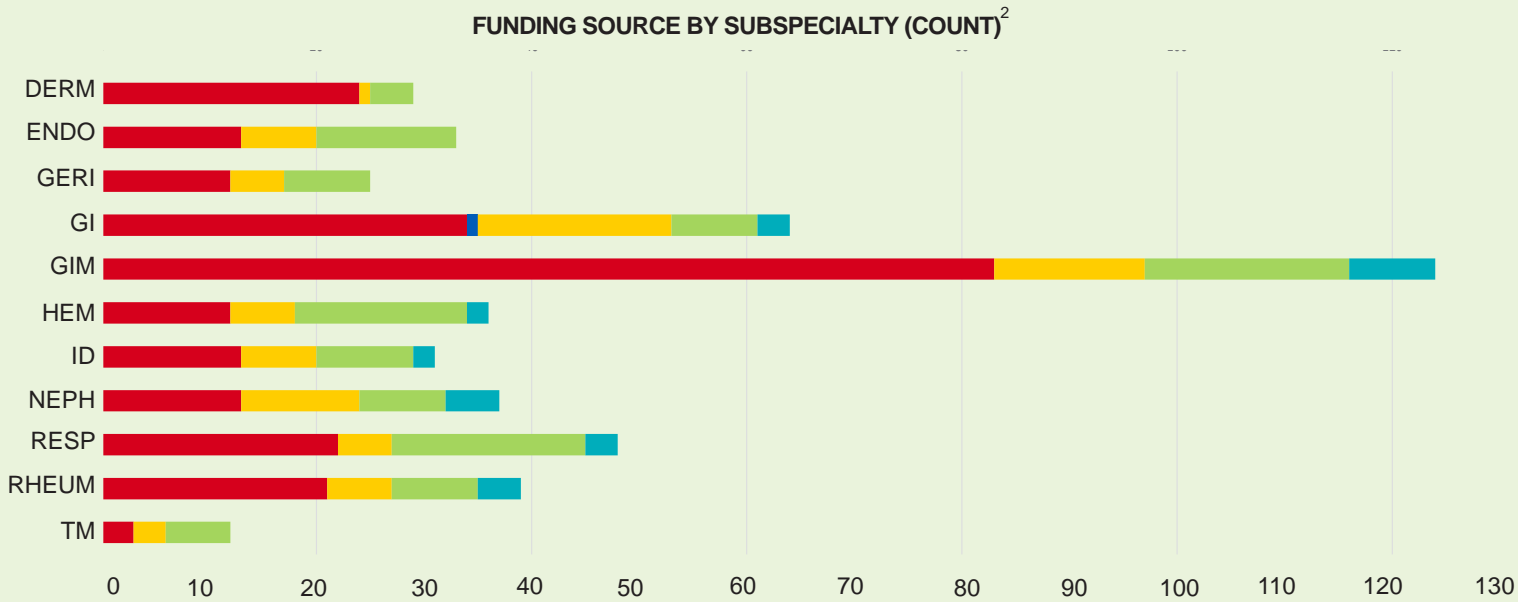
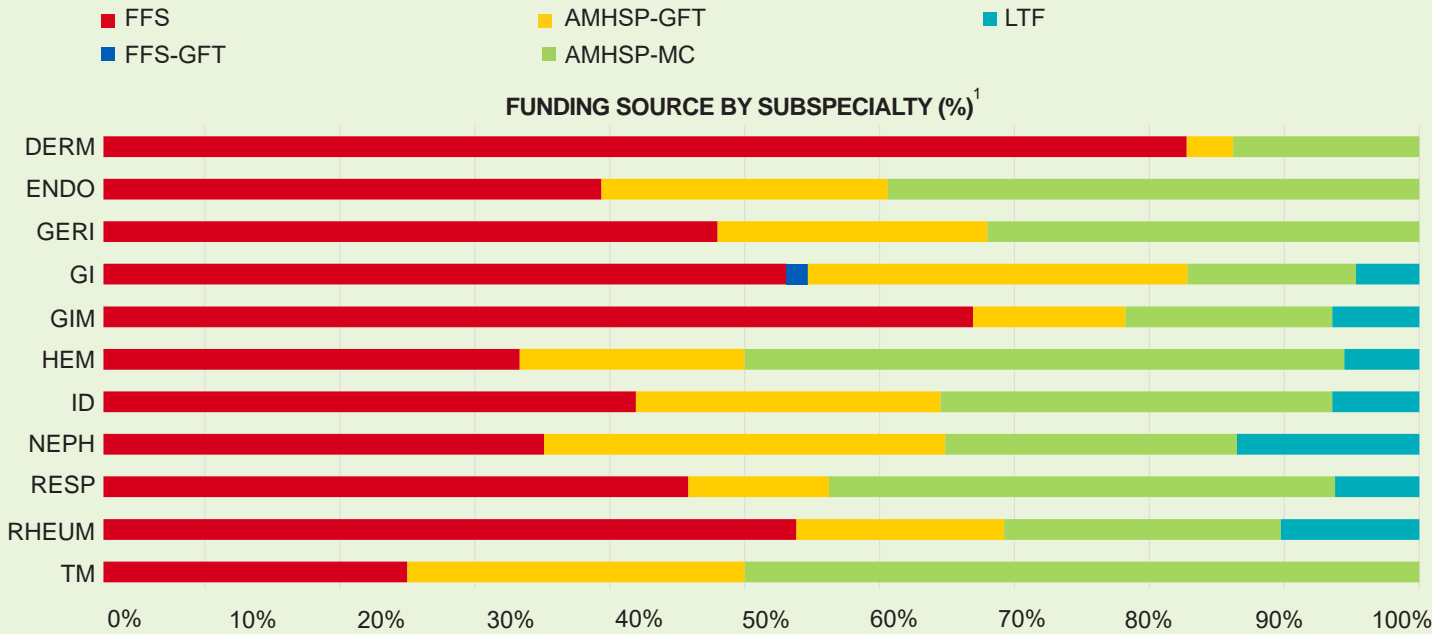
TOTAL CIHR REVENUE (MILLIONS)  
COMPARISON YEAR OVER YEAR



1. Data provided by UCalgary Analytics extracted from PS Research and Trust on Date for the fiscal year - accessed as of October 10, 2024. The methodology has changed recently. Therefore a comparison year over year with the same methodology is included for the two previous years also.

2. Indirect/other tri-council: External sponsors that use tri-agency funds (original source) sponsoring UCalgary projects.

Physician Funding Data



Faculty Rank	DERM	ENDO	GERI	GI	GIM	HEM	ID	NEPH	RESP	RHEUM	TM	Grand Total
FFS	24	13	12	34	83	12	13	13	22	21	3	250
FFS-GFT				1								1
AMHSP-GFT	1	7	5	18	14	6	7	11	5	6	3	83
AMHSP-MC	4	13	8	8	19	16	9	8	18	8	6	117
LTF				3	8	2	2	5	3	4		27
Grand Total	29	33	25	64	124	36	31	37	48	39	12	478

1. Source: Department of Medicine Gizmo

2. Source: Department of Medicine Gizmo

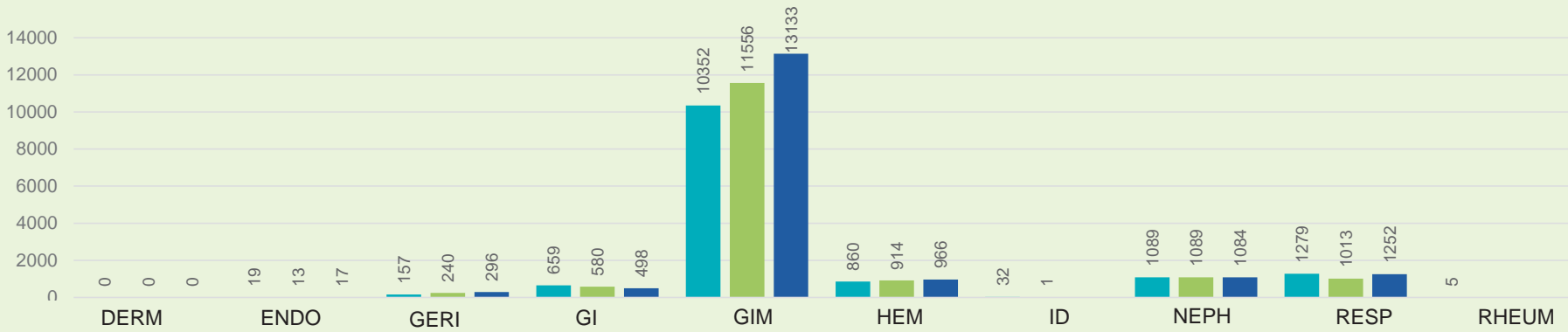


## Inpatient Data

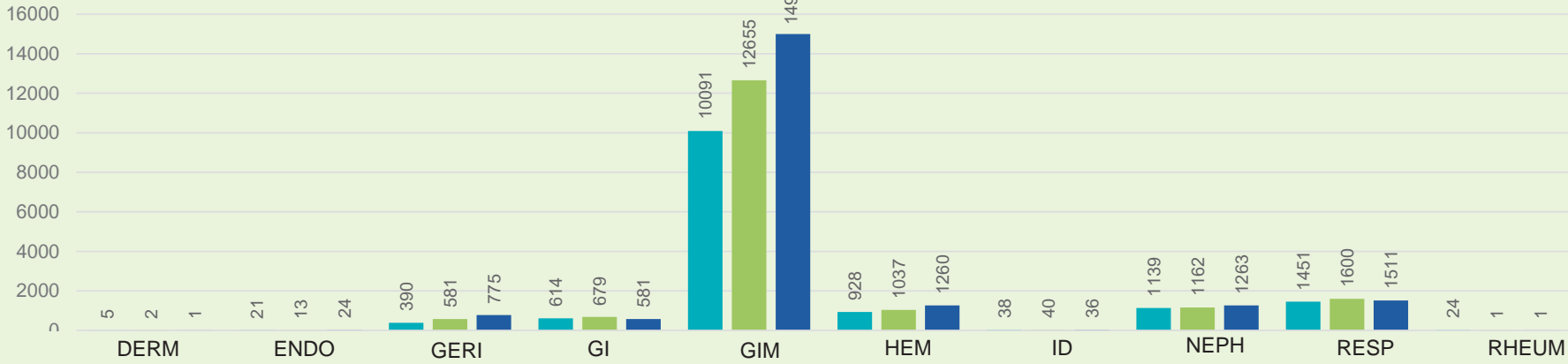
NOTE: Transplant Medicine counts are included within division numbers for RESP, NEPH, GI, DERM, ID, ENDO

2021/22 2022/23 2023/24

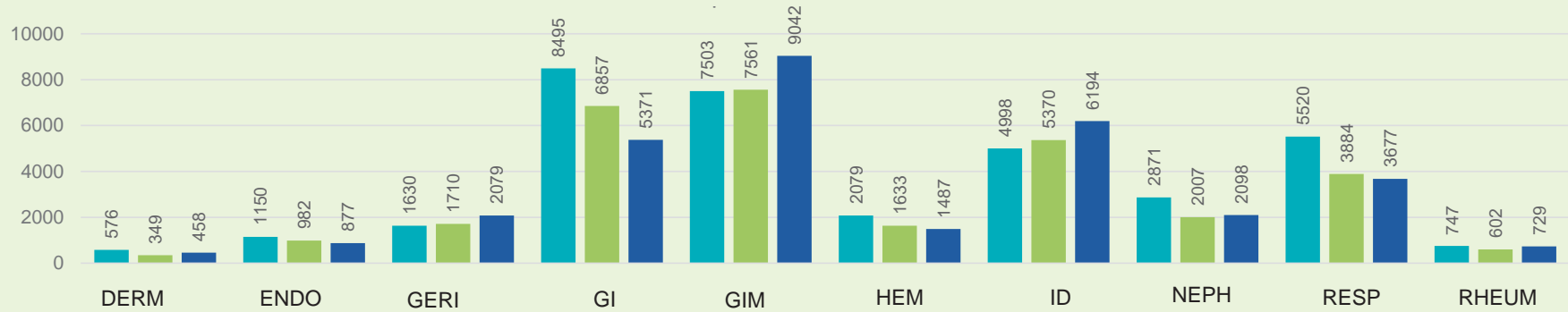
INPATIENTS ADMITTED <sup>1</sup>



INPATIENTS ATTENDED <sup>2</sup>



INPATIENT CONSULTS <sup>3</sup>



1. Source: Sunrise Clinical Manager and Connect Care

2. Source: Sunrise Clinical Manager (SCM) and Connect Care. Patients will have consecutive attending physicians during their hospital stay. The "attending" is the physician responsible for the patient during the attending period. This table captures all the patients for which any division physician was an attending physician during the patients stay.

3. Source: Sunrise Clinical Manager (SCM) and Connect Care. Consults ordered for inpatients are as per Sunrise Clinical Manager & ConnectCare data. Usually the consult is ordered with a physician's name attached. However, sometimes the order includes only a group name (eg. SHC GIM Medical Teaching Unit). Either are accepted but restricted so that there is no double counting. Consults ordered do not reflect how many patient encounters occurred. The rate table is based on Physician Billing data and shows for each consult ordered how many face to face encounters are likely to occur.

## Inpatient Data (Continued)

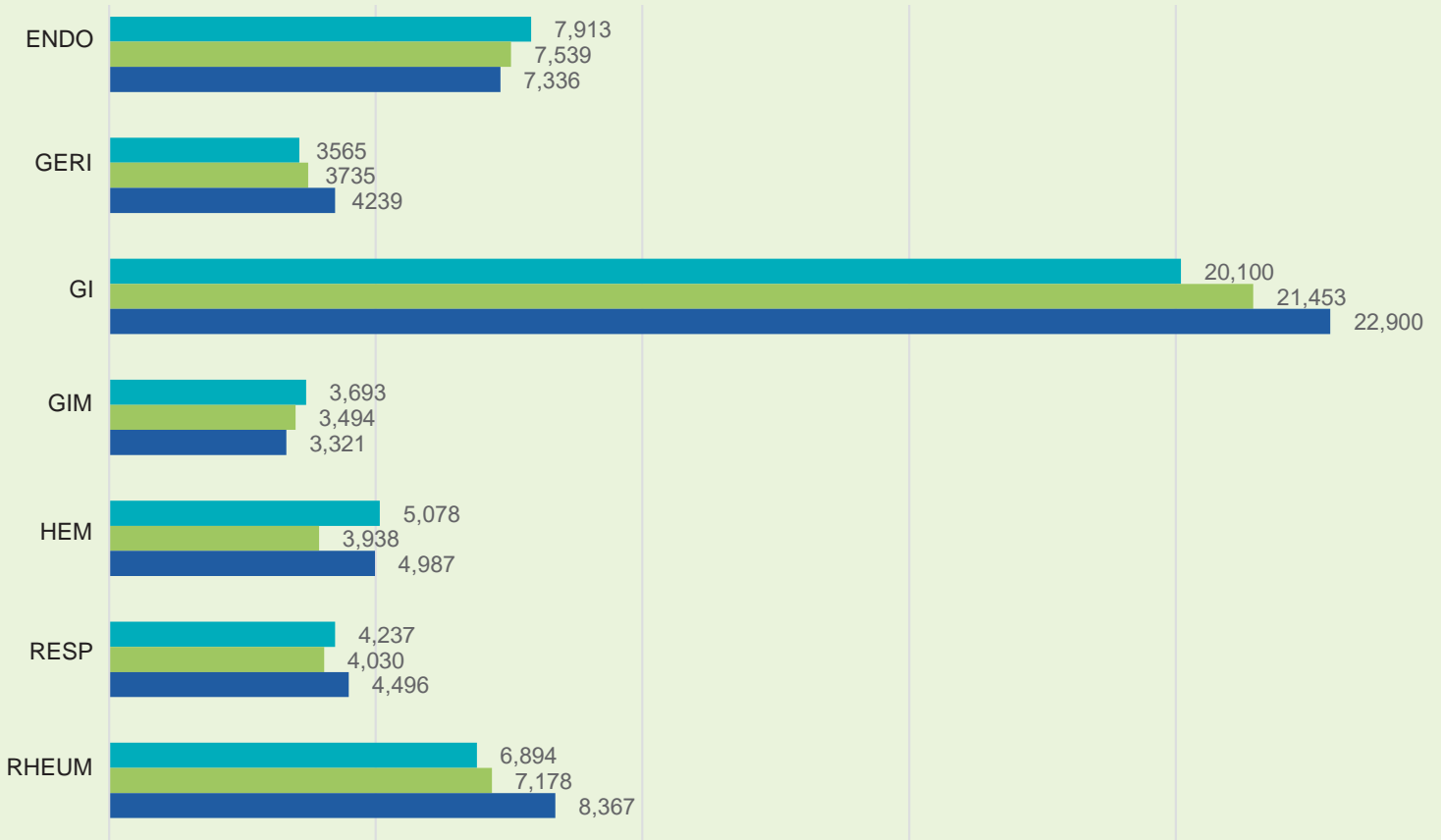
RATE OF FACE TO FACE PATIENT ENCOUNTERS PER INPATIENT CONSULTED 2023/24 <sup>1</sup>

Subspecialty	FMC	PLC	RGH	SHC
DERM	1.6	1.5	1.7	1.4
ENDO	4.2	2	1.6	1.7
GERI	3.3	3.8	5.3	2.7
GI	3	1.7	1.7	2.4
GIM	3.7	3.8	4	3.8
HEM	3.9	2.5	2.4	2.4
ID	3.7	3.4	3.4	3.5
NEPH	6.8	10.4	5.9	5.9
RESP	2.4	4.5	4.2	3.5
RHEUM	2.2	2	2	2.2

## OUTPATIENT DATA

2021/22 2022/23 2023/24

CENTRAL ACCESS & TRIAGE (CAT) OUTPATIENT CLINIC REFERRALS <sup>2</sup>

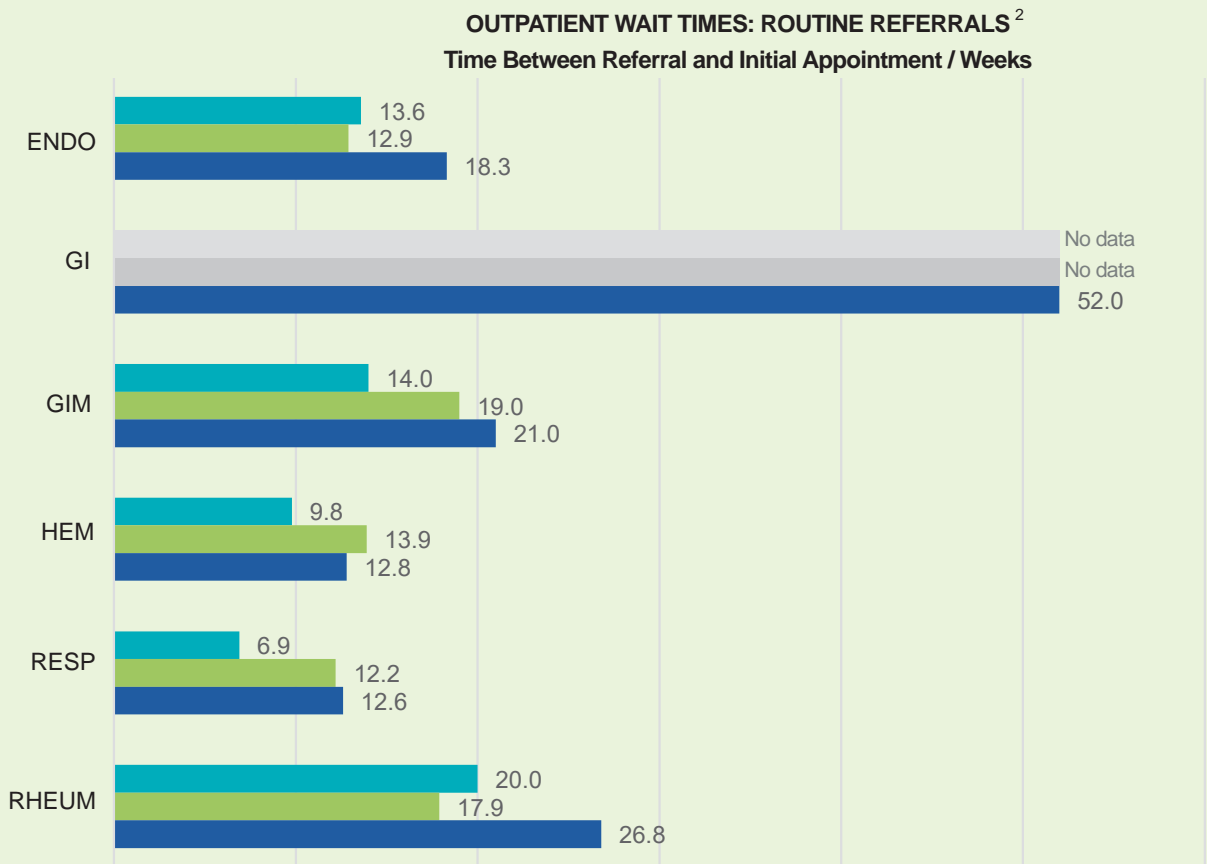
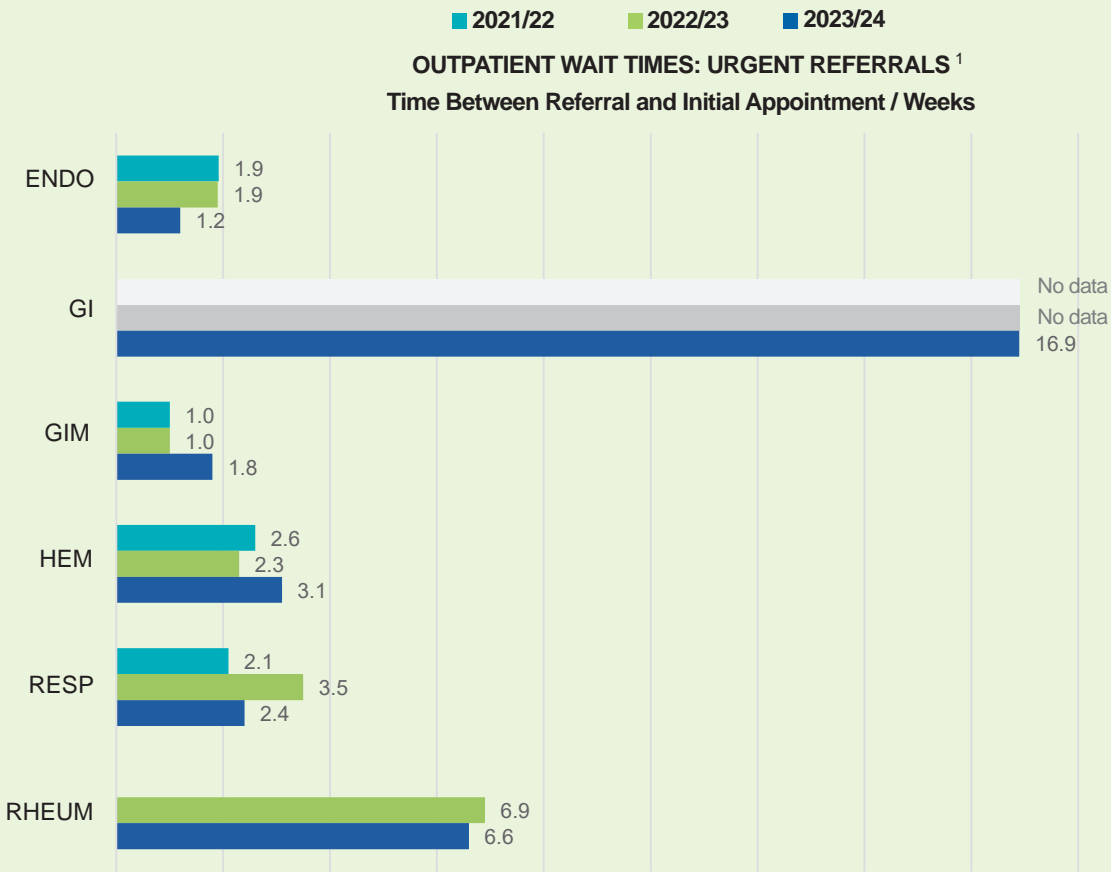


1. Source: Physician Billing. Consults ordered do not reflect how many patient encounters occurred. The rate table is based on Physician Billing data and shows for each consult ordered how many face to face encounters are likely to occur.

2. Source: Connect Care and Seniors Health One-line (Geriatric Medicine data only). Outpatient departmental services that do not participate in the Central Access & Triage or Seniors Health One-line are not captured. Gastroenterology data is for GI CAT only. Hepatology (Hep CAT) and the Colon Cancer Screening Centre together receive an additional > 20,000 referrals per year.



Outpatient Data (Continued)

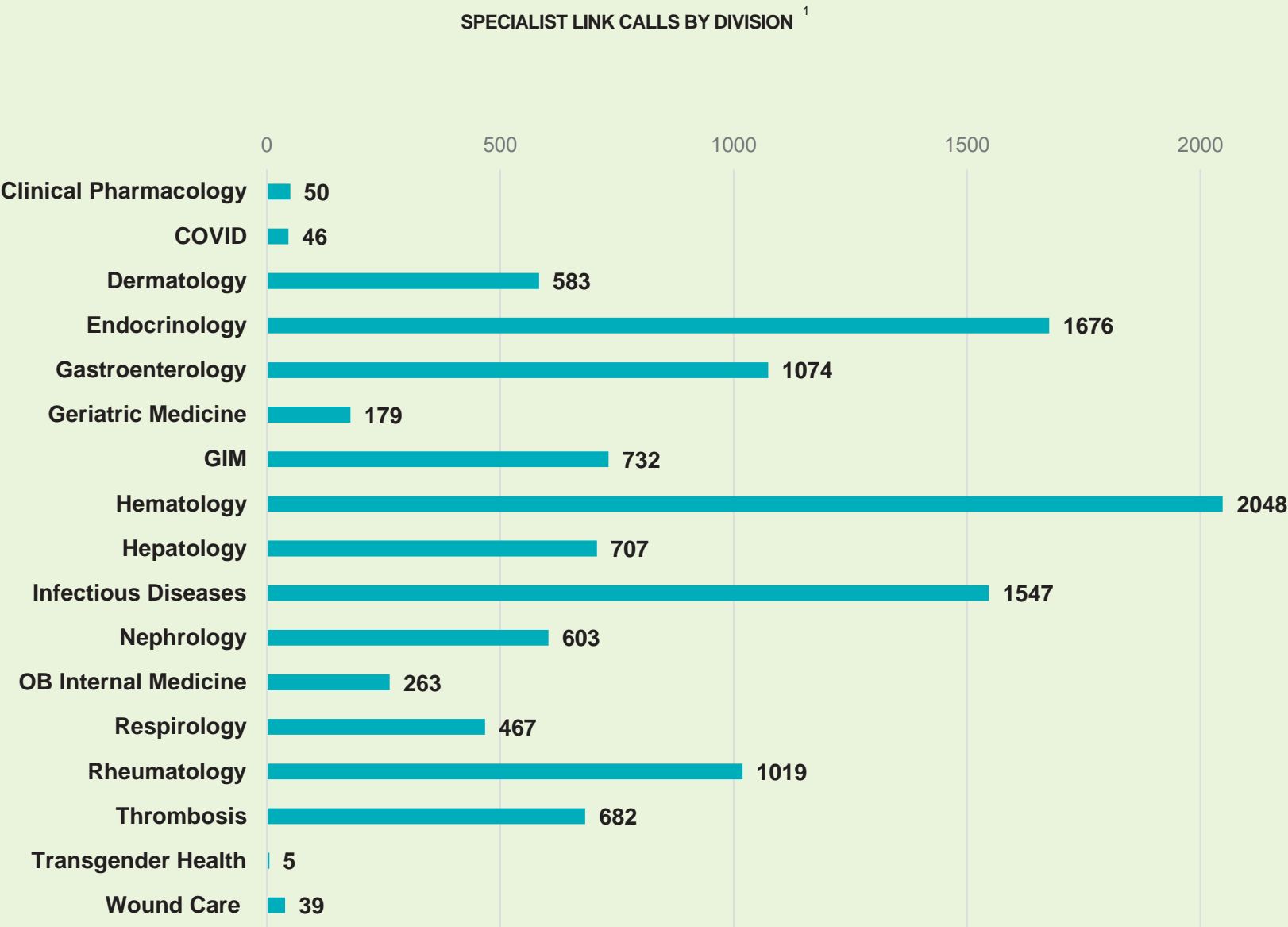


1. Source: Connect Care for 2023 - 2024; Central Access & Triage for previous years. Outpatient departmental services that do not participate in the Central Access & Triage are not captured.

2. Source: Connect Care for 2023 - 2024; Central Access & Triage for previous years. Outpatient departmental services that do not participate in the Central Access & Triage are not captured. Data is not available for all divisions

NOTE: GI Routine Wait Times has been provided by a ew source for 2023-24 and data for previous years cannot be used for comparison.

Specialist Link



1. Source: Provided from Specialist Link Calgary Foothills Primary Care Network



## Promotions

### Promotion to Professor

Dr. Maria Bacchus  
Dr. Ngan Lam  
Dr. Sachin Pendharkar

### Promotion to Associate Professor

Dr. Allison Brown  
Dr. Justin Chun  
Dr. Meghan Elliott  
Dr. Gabriel Fabreau  
Dr. Yasmin Nasser

### Promotion to Clinical Professor

Dr. Sophia Chou  
Dr. Andrei Metelitsa

### Promotion to Clinical Associate Professor

Dr. Kristen Brown  
Dr. Elaine Dumoulin  
Dr. Sumantra Monty Ghosh  
Dr. Jori Hardin  
Dr. Juliya Hemmett  
Dr. Fareed Kamar  
Dr. Tara Lohmann  
Dr. Stacey Hall  
Dr. Gisela Macphail  
Dr. Elena Qirjazi  
Dr. Caley Shukalek  
Dr. Michelle Kier (primary DCS)  
Dr. Jacques Rizkallah (primary DCS)

### Promotion to Clinical Assistant Professor

Dr. Jason Bau  
Dr. Sidra Javed  
Dr. Mithum Kularatne  
Dr. Meena Mathivanan  
Dr. Daniel Vis

## Awards

The Awards listed is limited to those the department was informed of. Awards received by members may have been missed. Please email dom.announcements@ahs.ca and we will update the digital/online version.

Please locate our Department of Medicine Annual Awards on Page 48

<b>Dr. Alex Aspinall</b> <ul style="list-style-type: none"><li>- 2023 PGME Excellence in Clinical Teaching</li></ul>	<ul style="list-style-type: none"><li>- Gold Star x 4, UME, CSM</li></ul>	reviews	<b>Dr. Sylvaine Coderre</b> <ul style="list-style-type: none"><li>- 2023 PGME Excellence in Clinical Teaching</li></ul>
<b>Dr. Maria Bacchus</b> <ul style="list-style-type: none"><li>- CSM McLeaod Distinguished Achievement Award</li></ul>	<b>Dr. Adam Bass</b> <ul style="list-style-type: none"><li>- 2023 PGME Excellence in Clinical Teaching</li></ul>	<b>Dr. Ann Clarke</b> <ul style="list-style-type: none"><li>- 2023 Canadian Rheumatology Association Distinguished Investigator Award</li></ul>	<b>Dr. John Conly</b> <ul style="list-style-type: none"><li>- Honorary Doctor of Science – University of Saskatchewan</li></ul>
<b>Dr. Megan Barber</b> <ul style="list-style-type: none"><li>- 2023 Alberta Medical Association - Future Leader Award</li></ul>	<b>Dr. Sonia Butalia</b> <ul style="list-style-type: none"><li>- 2023-24 Libin Researcher of the Year (Libin Cardiovascular Institute)</li></ul>	<b>Dr. Deirdre Church</b> <ul style="list-style-type: none"><li>- Clinical Preceptor of the Year - ID Residency Training Program.</li></ul>	<b>Dr. Stephen Duncan</b> <ul style="list-style-type: none"><li>- UME Gold Service Award</li></ul>
<b>Dr. Kirk Barber</b> <ul style="list-style-type: none"><li>- Canadian Dermatology Association Lifetime Achievement Award</li></ul>	<b>Dr. Darren Burback</b> <ul style="list-style-type: none"><li>- Platinum Distinguished Service Award</li><li>- Dean's Letter of Excellence for Small Group Teaching, UME, CSM</li></ul>	<b>Dr. May Choi</b> <ul style="list-style-type: none"><li>- McCaig Institute for Bone &amp; Health - Clinical-Scientist Collaboration Grant</li><li>- Lupus Foundation of America Betty Stevens Young Investigator Prize</li><li>- STAR Award from the Arthritis Society of Canada.</li><li>- 2023 Avenue CalgaryTop 40 under 40</li><li>- Future Leader in Medical Laboratory for Immunoloty</li><li>- Young Investigator Award from the Association of Medical Laboratory Immunologists</li></ul>	<b>Dr. Sandi Dumanski</b> <ul style="list-style-type: none"><li>- Canadian Fertility and Andrology Society Seed Grant</li><li>- 2023 Heart/Brain Vascular Health Award,</li><li>- Leadership Award: Wear Red Canada</li><li>- Outstanding CIHR Reviewer top 2%</li></ul>
<b>Dr. Cheryl Barnabe</b> <ul style="list-style-type: none"><li>- Editors Choice Award</li></ul>	<b>Dr. David Campbell</b> <ul style="list-style-type: none"><li>- Early Career Leadership in Health Policy/Health Systems from Royal College</li><li>- Lynn McIntyre Outstanding Service Award</li></ul>	<b>Dr. Victoria David</b> <ul style="list-style-type: none"><li>- UME Bronze Service Award</li></ul>	<b>Dr. Elaine Dumoulin</b> <ul style="list-style-type: none"><li>- 2023 PGME Excellence in Clinical Teaching</li></ul>
<b>Dr. Christine Louise Banage</b> <ul style="list-style-type: none"><li>- UME Gold Service Award</li></ul>	<b>Dr. Cynthia Card</b> <ul style="list-style-type: none"><li>- UME Bronze Service Award</li></ul>	<b>Dr. Anita Dempsey</b> <ul style="list-style-type: none"><li>- UME Gold Star Award</li><li>- Associate Dean's Letter of Excellence for Lecturing, UME, CSM</li><li>- Associate Dean's Letter of Excellence for Clinical Care, UME, CSM</li><li>- UME Platinum Award for teaching UME, CSM</li></ul>	<b>Dr. Meghan Elliott</b> <ul style="list-style-type: none"><li>- Mission Award - AJKD - National Kidney Foundation</li></ul>
<b>Dr. Adam Bass</b> <ul style="list-style-type: none"><li>- Gold Star Teaching Course 4, UME</li></ul>	<b>Dr. Kim Cheema</b> <ul style="list-style-type: none"><li>- 2023 PGME Excellence in Clinical Teaching</li><li>- UME Bronze Service Award</li></ul>	<b>Dr. Sophia Chou</b> <ul style="list-style-type: none"><li>- 2023 Post Graduate Clinical Education Award for clinical, adjunct and research faculty.</li><li>- 2023 PGME Excellence in Clinical Teaching</li><li>- UME Bronze Service Award</li></ul>	<b>Dr. Lewis Girard</b> <ul style="list-style-type: none"><li>- Associate Dean's Letter of Excellence in Teaching</li><li>- UME Bronze Service Award</li></ul>
<b>Dr. Hanan Bassyouni</b> <ul style="list-style-type: none"><li>- 2024 CSM Alumni of Distinction award for Service</li><li>- UME Platinum Service Award</li></ul>	<b>Dr. Kim Chun</b> <ul style="list-style-type: none"><li>- Outstanding peer review service in three consecutive CIHR Peer</li></ul>		<b>Dr. Dr. Anita Dey</b> <ul style="list-style-type: none"><li>- 2023 PGME Excellence in Clinical Teaching</li></ul>
<b>Dr. Aleem Bhawani</b> <ul style="list-style-type: none"><li>- Associate Dean's Letter of Excellence for Lecturing, UME, CSM</li><li>- Bronze Award x 3 UME, CSM</li></ul>			

## Awards

<b>Dr. Karen Fruetel</b> <ul style="list-style-type: none"><li>- Outstanding Teaching Award Care of Elderly Residency Program, CSM</li><li>- Platinum Distinguished Service Award</li><li>- Dean's Letter of Excellence for Small Group Teaching, UME, CSM</li></ul>	Canadian Institutes of Health, College Reviewers of Excellence	CAME Merit Award	<ul style="list-style-type: none"><li>- 2023 PGME Excellence in Clinical Teaching</li></ul>	<b>Dr. Stefan Mustata</b> <ul style="list-style-type: none"><li>- UME Bronze Service Award</li></ul>
<b>Dr. Jolene Haws</b> <ul style="list-style-type: none"><li>- UME Platinum Service Award</li></ul>		<b>Dr. Gilaad Kaplan</b> <ul style="list-style-type: none"><li>- Highly Cited Researcher Clarivate Web of Science</li></ul>	<b>Dr. Braden Manns</b> <ul style="list-style-type: none"><li>- Association of Caculties of Medicine Canada (AFMC) Mentorship Award</li></ul>	<b>Dr. Henry H Nguyen</b> <ul style="list-style-type: none"><li>- Triangle Early Career Researcher Award</li></ul>
<b>Dr. Erin Helson</b> <ul style="list-style-type: none"><li>- UME Silver Service Award</li></ul>		<b>Dr. Erin Kenna</b> <ul style="list-style-type: none"><li>- 2023 PGME Excellence in Clinical Teaching</li></ul>	<b>Dr. Paul MacEachern</b> <ul style="list-style-type: none"><li>- 2023 PGME Excellence in Clinical Teaching</li><li>- UME Bronze Teaching Award</li></ul>	<b>Dr. Monica Oliver</b> <ul style="list-style-type: none"><li>- 2023 PGME Excellence in Clinical Teaching</li></ul>
<b>Dr. Nauzer Forbes</b> <ul style="list-style-type: none"><li>- American Society for Gastrointestinal Endoscopy Research Award</li><li>- 2023 Avenue CalgaryTop 40 under 40</li></ul>		<b>Dr. Joseph Kim</b> <ul style="list-style-type: none"><li>- 2023 PGME Excellence in Clinical Teaching</li></ul>	<b>Dr. Braedon McDonald</b> <ul style="list-style-type: none"><li>- 2023 Killam Emerging Research Leader</li></ul>	<b>Dr. Chrus Oleynick</b> <ul style="list-style-type: none"><li>- 2023 PGME Excellence in Clinical Teaching</li></ul>
<b>Dr. Mark Gillrie</b> <ul style="list-style-type: none"><li>- 2023 PGME Excellence in Clinical Teaching</li><li>- Window to your Soul Mentorship Award - ID Residency Training Program.</li></ul>	<b>Dr. Juliya Hemmett</b> <ul style="list-style-type: none"><li>- UME Bronze Service Award</li></ul>	<b>Dr. Susan Kinnear</b> <ul style="list-style-type: none"><li>- UME Bronze Service Award</li></ul>	<b>Dr. Julie McKeen</b> <ul style="list-style-type: none"><li>- Diabetes Canada National Advocacy Leadership Award</li></ul>	<b>Dr. Remo Panaccione</b> <ul style="list-style-type: none"><li>- GI Residents Award for Career Mentorship</li><li>- Highly Cited Researcher Clarivate Web of Science</li></ul>
<b>Dr. Laura Hinz</b> <ul style="list-style-type: none"><li>- UME Platinum Service Award</li></ul>	<b>Dr. Nashaud Hirani</b> <ul style="list-style-type: none"><li>- UME Bronze Service Award</li></ul>	<b>DDr. Emily Kwan</b> <ul style="list-style-type: none"><li>- Associate Dean's Lette rof Excellence for Small Group Teaching</li><li>- UME Platinum Award for hours of teaching contribution</li><li>- Oustanding Teaching Award, COE, Family Medicine</li></ul>	<b>Dr. Jacqueline McMillan</b> <ul style="list-style-type: none"><li>- Associate Dean's Letter of Excellence for Clerkship Teaching</li></ul>	<b>Dr. Michael Parkins</b> <ul style="list-style-type: none"><li>- 2023 SSE Excellence Award - Distinguished Collaborator, Schulich School of Engineering, UCalgary</li></ul>
<b>Dr. Kelle Hurd</b> <ul style="list-style-type: none"><li>- PGME award of Excellence: Resident Mentorship</li><li>- UME Platinum Service Award</li></ul>		<b>Dr. Parabhdeep Lail</b> <ul style="list-style-type: none"><li>- 2023 PGME Excellence in Clinical Teaching</li></ul>	<b>Dr. Kevin McLaughlin</b> <ul style="list-style-type: none"><li>- Gold Star Teaching Award Course 4, UME</li></ul>	<b>Dr. Lori Parsons</b> <ul style="list-style-type: none"><li>- 2023 UME Teaching Award Bronze</li></ul>
<b>Dr. Zahra Goodarzi</b> <ul style="list-style-type: none"><li>- Yves Joanne Award of Excellence in Research in Aging</li><li>- 2023 PGME Excellence in Clinical Teaching</li><li>- COVID Outstanding Achievement Award, CSM</li><li>- Alumni of Distinction at UCalgary Convocation</li></ul>	<b>Dr. David Hogan</b> <ul style="list-style-type: none"><li>- Norm Schachar Long-Service Award in CME &amp; PD</li><li>- Certificate of Appreciation for Contributions to the Brenda Stafford Board of Directors</li></ul>	<b>Dr. Ryan Lenz</b> <ul style="list-style-type: none"><li>- UME Platinum Service Award</li></ul>	<b>Dr. Bonnie Meatherall</b> <ul style="list-style-type: none"><li>- UME Gold Service Award</li></ul>	<b>Dr. Paula Pearce</b> <ul style="list-style-type: none"><li>- Outstanding Achievement Award, McMaster University, Faculty of Health Sciences Graduate Programs</li><li>- Equity in Learning Excellence Award - Dept. Family Medicine</li><li>- Gold Star Award for Teaching in Clinical Skills, UME, CSM</li><li>- UME Silver Service Award</li></ul>
<b>Dr. Milli Gupta</b> <ul style="list-style-type: none"><li>- UME Silver Service Award</li></ul>	<b>Dr. Debra Isaac</b> <ul style="list-style-type: none"><li>- Excellence in Clinical Education PGME, CSM</li><li>- Clinical of the Year, Cardiology, Dept. of Cardiac Sciences</li></ul>	<b>Dr. Richard Leigh</b> <ul style="list-style-type: none"><li>- Recognition Award - Outgoing President of the Can Thoracic Society</li></ul>	<b>Dr. Daniel Miller</b> <ul style="list-style-type: none"><li>- UME Bronze Service Award</li></ul>	
<b>Dr. Tyrone Harrison</b> <ul style="list-style-type: none"><li>- New Investigator Award with Krescent program</li></ul>	<b>Dr. Matthew James</b> <ul style="list-style-type: none"><li>- 2023 PGME Excellence in Clinical Teaching</li><li>- Excellence in Clinical Teaching AHA Award</li></ul>	<b>Dr. Kirstie Lithgow</b> <ul style="list-style-type: none"><li>- UME Bronze Service Award</li></ul>	<b>Dr. Marcy Mintz</b> <ul style="list-style-type: none"><li>- UME Platinum Service Award</li></ul>	<b>Dr. Sachin Pendharkar</b> <ul style="list-style-type: none"><li>- 2023 PGME Excellence in Clinical Teaching</li></ul>
<b>Dr. Stacey Hall</b> <ul style="list-style-type: none"><li>- UME Platinum Award for teaching UME, CSM</li></ul>	<b>Dr. Andrea Loewen</b> <ul style="list-style-type: none"><li>- 2023 PGME Excellence in Clinical Teaching</li></ul>	<b>Dr. Rachid Mohamed</b> <ul style="list-style-type: none"><li>- 2023 PGME Excellence in Clinical Teaching</li></ul>	<b>Dr. Dianne Mosher</b> <ul style="list-style-type: none"><li>- 2023 PGME Excellence in Clinical Teaching</li></ul>	<b>Dr. Sarah Perry</b> <ul style="list-style-type: none"><li>- 2023 PGME Excellence in Clinical Teaching</li></ul>
<b>Dr. Jori Hardin</b> <ul style="list-style-type: none"><li>- Canadian Dermatology Association Early Career Volunteer Award</li></ul>	<b>Dr. Rahim Kachra</b> <ul style="list-style-type: none"><li>- Laureate Award, Alberta Chapter of the American College of Physicians</li><li>- Jones Award for Leadership in Excellence in the UME program</li><li>- CSM Alumni of Distinction Award</li><li>- Canadian Association for Medical Education</li></ul>	<b>Dr. Tara Lohmann</b> <ul style="list-style-type: none"><li>- Gold Star Award, CSM</li></ul>	<b>Dr. Gary Morris</b> <ul style="list-style-type: none"><li>- Distinguished rheumatologist of the year from the Section of Rheumatology, Alberta Medical Association</li></ul>	<b>Dr. Michelle Persuad</b> <ul style="list-style-type: none"><li>- 2023 PGME Excellence in Clinical Teaching</li></ul>
<b>Dr. Stacey Hazelwood</b> <ul style="list-style-type: none"><li>- Outstanding Reviewer,</li></ul>	<b>Dr. John Fraser</b> <ul style="list-style-type: none"><li>- UME Bronze Service Award</li></ul>	<b>Dr. Aaron Low</b> <ul style="list-style-type: none"><li>- 2023 PGME Excellence in Clinical Teaching</li></ul>	<b>Dr. Regine Mydlarski</b> <ul style="list-style-type: none"><li>- Canadian Dermatology Association Award of Merit</li></ul>	<b>Dr. Lawrence Price</b> <ul style="list-style-type: none"><li>- UME Platinum Service Award</li></ul>



Awards

<b>Dr. Susan Poelman</b> - 2023 Canadian Dermatology Association Public Education Award	in Clinical Teaching	- 2023 PGME Excellence in Clinical Teaching
<b>Dr. Elissa Rennert-May</b> - Research Mentorship Award	<b>Dr. Caley Shukalek</b> - Canada's 2SLGHTQI+ Chamber of Commerce Business Leader of the Year	<b>Dr. Miltesh Thakrar</b> - Cowie Award, Division of Respiratory Medicine
<b>Dr. Michael Roman</b> - 2023 PGME Excellence in Clinical Teaching	<b>Dr. Kate Skolnik</b> - 2023 PGME Excellence in Clinical Teaching	<b>Dr. Julia Tien</b> - 2023 PGME Excellence in Clinical Teaching
<b>Dr. Nick Romatowski</b> - John Chan Award	<b>Dr. Melanie Stapleton</b> - PGME Award of Excellence: Outstanding Commitment to Residency Education	<b>Dr. Christina Thornton</b> - 2023 Foothills Medical Centre Medical Staff Association Physician of the Year award - Early Career. - Award for Excellence in Clinical Teaching PGME
<b>Dr. Shannon Ruzyccki</b> - 2023 Foothills Medical Centre Medical Staff Association- Diversity and Inclusion Award	<b>Dr. Ranjani Somayaji</b> - Gentle Nudge Award for Research Supervisor of the Year - ID Residency Training Program.	<b>Dr. Chandra Thomas</b> - UME Bronze Teaching Award
<b>Dr. Joanne Salmon</b> - UME Bronze Service Award	<b>Dr. Laura Stinton</b> - 2023 PGME Excellence in Clinical Teaching	<b>Dr. Marcello Tonelli</b> - Fellow of the Royal Society of Canada - Highly Cited Researcher Clarivate Web of Science - Killam Professorship Award - National Research Council
<b>Dr. Peter Sargious</b> - Diabetes Canada National Advocacy Leadership Award	<b>Dr. Mark Swain</b> - American Association for Study of Liver Diseases Presidential Distinction Poster Award	<b>Dr. Alejandra Ugartes-Torres</b> - Zen Award for Work-Life Balance - ID Residency Training Program.
<b>Dr. Heidi Schmaltz</b> - UME Bronze Service Award	<b>Dr. Puneeta Tandon</b> - 2023 PGME Excellence in Clinical Teaching	
<b>Dr. Nairne Scott-Douglas</b> - 2023 PGME Excellence	<b>Dr. Jason Tay</b>	

<b>Dr. Alain Tremblay</b> - UCalgary COVID-Outstanding Achievement Award	<b>Report awards here:</b> <a href="https://cumming.ucalgary.ca/departments/medicine/physician-resources/communications-resources/celebrate-award">https://cumming.ucalgary.ca/departments/medicine/physician-resources/communications-resources/celebrate-award</a>
<b>Dr. Alena Yakimenka</b> - UME Bronze Service Award	

<b>Dr. Sarah Weeks</b> - UME Bronze Service Award
--

<b>Dr. Michaela Walter</b> - UME Bronze Service Award
--

<b>Dr. Taylor Wong</b> - PGME Clinical Teaching Award - UME Associate Dean's Letter of Excellence for small Group Teaching - UME Platinum Award
--

<b>Caren Marie Wu</b> - UME Platinum Service Award
---

<b>CREDITS</b> <b>Design and Artwork Production</b> Pip Hazell  <b>Editorial Photography</b> Dan Molyneaux - Lupus Article Leah Hannel - Lung Cancer Article & GIM Background Image Julia Daun - Transplant Wellness Leadership Pip Hazell Shutterstock & Colourbox Staff/Faculty
--

<b>Copywriting</b> Department of Medicine Staff & Doctors
--

<b>CONTACT</b> Department of Internal Medicine Cumming School of Medicine  University of Calgary and Alberta Health Services – Calgary Zone  9th Floor, North Tower, Foothills Medical Centre 1403 – 29th Street NW, Calgary, AB T2N 2T9  departmentofmedicine.com
---



<b>LEGEND</b>			
<b>Cardiac</b>	Cardiac Sciences	<b>AMHSP</b>	Academic Medicine Health Services Plan
<b>Cell Bio &amp; Anat</b>	Cell Biology & Anatomy	<b>ADJ</b>	Adjunct Member
<b>Clin Neuro</b>	Clinical Neurosciences	<b>Adj. Asst. Prof</b>	Adjunct Assistant Professor
<b>Comm Health</b>	Community Health Sciences	<b>Adj. Prof</b>	Adjunct Professor
<b>Crit Care</b>	Critical Care Medicine	<b>Asst. Prof</b>	Assistant Professor
<b>Emerg Med</b>	Emergency Medicine	<b>Assoc. Prof</b>	Associate Professor
<b>MIID</b>	Microbiology, Immunology & Infectious Diseases	<b>Prof</b>	Professor
<b>Ob Gyn</b>	Obstetrics & Gynaecology	<b>Clin. Lecturer</b>	Clinical Lecturer
<b>Onc</b>	Oncology	<b>Clin. Asst. Prof</b>	Clinical Assistant Professor
<b>Paeds</b>	Paediatrics	<b>Clin. Assoc. Prof</b>	Clinical Associate Professor
<b>Lab Med</b>	Pathology & Laboratory Medicine	<b>Clin. Prof</b>	Clinical Professor
<b>Phys Pharm</b>	Physiology & Pharmacology	<b>FFS</b>	Fee-For-Service Member
<b>Psych</b>	Psychiatry	<b>GFT</b>	Geographic Full-Time (Full-Time Academic Faculty)
<b>Rad</b>	Radiology	<b>LTA</b>	Locum Tenens – AMHSP funded
		<b>LTF</b>	Locum Tenens – FFS funded
<b>FMC</b>	Foothills Medical Centre	<b>MC</b>	Major Clinical AMHSP Member
<b>PLC</b>	Peter Lougheed Centre	<b>DERM</b>	Dermatology
<b>RGH</b>	Rockyview General Hospital	<b>ENDO</b>	Endocrinology
<b>SHC</b>	South Health Campus	<b>GERI</b>	Geriatric Medicine
<b>RRDTC</b>	Richmond Road Diagnostic Treatment Centre	<b>GI</b>	Gastroenterology & Hepatology
		<b>GIM</b>	General Internal Medicine
		<b>HEM</b>	Hematology & Hematological Malignancies
		<b>ID</b>	Infectious Diseases
		<b>NEPH</b>	Nephrology
		<b>RESP</b>	Respiratory Medicine
		<b>RHEUM</b>	Rheumatology
		<b>TM</b>	Transplant Medicine
		<b>RE</b>	Research Equivalent



