

ANNUAL REPORT

2021

Department of Surgery
2021 Annual Report

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Editor: Tammie Roy
We wish to thank all surgeons, administrators, and other team members whose efforts made this report possible.

www.cumming.ucalgary.ca/departments/surgery

TERRITORIAL ACKNOWLEDGEMENT

The University of Calgary acknowledges and pays tribute to the traditional territories of the people of the Treaty 7 region in Southern Alberta, which includes the Blackfoot Confederacy (comprising the Siksika, Piikani, and Kainai First Nations), the Tsuut’ina First Nation, and the Stoney Nakoda (including the Chiniki, Bearspaw, and Wesley First Nations). The City of Calgary is also home to the Métis Nation of Alberta, Region 3.

The Department of Surgery and the University of Calgary are committed to meaningful reconciliation with Indigenous peoples and communities.

ii’ taa’poh’to’p, the University of Calgary’s Indigenous Strategy, is a commitment to deep evolutionary transformation by reimagining ways of knowing, doing, connecting, and being. Walking parallel paths together, ‘in a good way,’ UCalgary is moving toward genuine reconciliation and Indigenization.

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LETTER FROM THE HEAD OF THE DEPARTMENT OF SURGERY



Dear Colleagues and Friends,

As I look back on my first full year as the Department Head of the Department of Surgery, I would like to recognize the challenges of the past and look forward with hope for the future.

When I started in my new role, COVID-19 numbers were dropping, vaccines were rolling out, and we had hope that the pandemic was receding. However, as we all know, COVID has been anything but predictable. 2021 saw waves three and four, and we again saw our ability to provide surgical care impacted, with postponed surgeries and ongoing difficulties managing the growing waitlists. Though 2021 continued to present uncertainty and challenges, I cannot help but be inspired by the dedication of our faculty and staff. I am proud of how our department has come together to meet these challenges, and I commend everyone for their hard work.

I would like to thank my predecessors, who helped expertly steer us through the early days of COVID. Dr. Sean

Grondin, who stepped down last year after four and a half years as the Department Head, has built a solid foundation to support the department's academic and clinical missions. I would also like to thank Dr. Elijah Dixon, who was interim Department Head before completing his term as Deputy Department Head of Clinical Programs, Operations, Surgical Quality, and Innovation. Elijah's dedication to the department cannot be understated, and I thank him for his service. A search for Dr. Dixon's replacement is currently underway.

Despite the past year's challenges, we also have much to be grateful for and look forward to in the coming year. We are conducting a search for a new position: Deputy Department Head of Equity, Diversity, Inclusion, Wellness, and Professionalism. The creation of this position is an intentional step toward embedding these elements into the fabric of the department and creating an inclusive space that reflects the populations we serve. Last year also saw the creation of a new voluntary position, the Entrepreneur in Residence, a role taken on by Dr. Richard Hu. He will use his experience as a founder and co-founder of several companies to provide support, advice, and resource connections to department members who have developed or are interested in developing a commercial product, device, or service.

Sadly, this year we must also recognize the passing of two colleagues, Dr. Jun Kawakami and Dr. James Nixon. Both surgeons had successful careers and greatly impacted our surgical community. They touched many lives, and our sympathy goes out to their families, friends, colleagues, and patients. They will be deeply missed.

Surgical Activity

Operating room closures due to COVID-19 continued to impact surgical activity in 2021. The five Calgary Zone and three rural hospitals performed 71,707 cases, and Chartered Surgical Facilities (CSF) performed 27,904 cases. Total case volumes in 2021 represent a 7% increase from 2020 surgical volumes.

Alberta Surgical Initiative and Recovery

The Alberta Surgical Initiative (ASI) has been impacted by COVID-19 and shifted from its original goal of decreasing wait times to pandemic recovery and eliminating the

pandemic backlog. Contracts with CSFs have allowed the Section of Ophthalmology to increase the number of cataract surgeries performed during the pandemic. Requests for proposals have been submitted by the Section of Orthopaedic Surgery, and other surgical sections are expected to follow suit. The ASI is also working on Central Access and Triage (CAT) with activity in the Sections of Urology, Ophthalmology and Orthopaedic Surgery. Once these pilots are complete, CAT will spread to other sections over the next two years, helping to reduce and streamline waitlists. Work has also been ongoing on the specialty access bundle to increase access to surgical specialists pre and post-operatively.

Acute Care Coverage

Gaps in call coverage due to a drop in resident numbers and addressing diversions from some hospital sites is forcing the department to reassess how it supports acute care coverage. Insufficient house staff for acute care coverage has especially affected the Sections of General Surgery and Orthopaedic Surgery. The upcoming discontinuation of stipends and a difficult process for clinical ARPs have affected many sections and programs in our department. We will continue to address Acute Care Coverage over the next year.

Office of Surgical Research

The Office of Surgical Research (OSR), led by Dr. Michael Monument, had a productive 2021. They sponsored 17 research grants and awards totalling \$161,000 and provided continued support for the Surgeon Scientist Program. They also held a successful 38th annual Surgeon's Research Day Symposium. It was held virtually in June, with guest lectures by Dr. Mary Brindle and Dr. Jonathan White.

Office of Surgical Education

From an education perspective, the Office of Surgical Education (OSE) has been busy managing the expansion of web-based learning due to COVID-19. Though it has been challenging, they successfully pivoted during the pandemic and must be commended for continuing to provide high-quality teaching experiences. They have a busy upcoming year with a Royal College Accreditation planned and a continued transition to Competency by Design.

Office of Surgical Quality

Like many other groups, the Office of Surgical Quality (OSQ) faced challenges over the last year, with many quality improvement projects placed on hold. However, they took this opportunity to further define their priorities and improve their structures, and they continued to support surgical sections as requested. A highlight was their continued

71,707 surgical procedures at five urban and three rural hospitals

27,904 cases at Chartered Surgical Facilities

7% increase over the previous year's surgical case volume

work on opioid optimization, and they look forward to releasing the results of this work in the coming year.

Evidence Decision Support Program

The Evidence Decision Support Program (EDSP) has been very productive, with 35 health technology and innovation intakes and 17 reports, health technology evaluation trials, and provincial initiatives. They expanded their support across the entire perioperative clinical community, including the Departments of Obstetrics and Gynecology as well as Anesthesiology and Pain Medicine.

The last year brought us many challenges and opportunities, and I would like to thank everyone who has worked hard to continue providing excellent patient care. Your hard work and commitment are acknowledged and recognized. I thank everyone for their support, and I look forward with optimism as we move into 2022.

Sincerely,
Dr. Kevin A. Hildebrand, MD, FRCS(C), CCPE (he/his/him)
 Academic Head and Professor, Department of Surgery
 Cumming School of Medicine, University of Calgary
 Zone Clinical Department Head, Department of Surgery
 Alberta Health Services – Calgary Zone

LETTER FROM THE DEPUTY DEPARTMENT HEAD — GOVERNANCE AND PHYSICIAN SERVICES



Dear Colleagues and Friends,

It has been a tough year, but I remain thankful for the small part we each play in the lives of our patients. I know they are grateful for the care we provide, and it is those small acts of gratitude that keep us going, reminding us why we come to work each day. We entered 2021 looking forward to the excitement of a new department head, COVID vaccines, a surgical recovery plan, stabilization of our leadership positions, alternative funding plans for certain groups, and new models for acute care coverage. Some things went as predicted, and others not so much. COVID continued to affect our lives and remained centre stage most of the year. Wave 4 in the fall of 2021 was especially challenging as operating rooms across the city were limited in their ability to carry out elective surgery. Anesthesia and nursing staff were redeployed to other areas to care for the sickest patients. Our members showed flexibility

and adaptability, which is paramount for any successful healthcare team. We thank you for your continued hard work and dedication throughout these challenging times.

The year was not all about COVID, and if our department was a sports team, some might describe 2021 as a rebuilding year – a year to provide the foundation for successful years ahead. Our new Department Head, Dr. Hildebrand, along with our senior management team, have been working to reframe our discussions and our culture through a lens with a larger worldview. We are acutely aware of the importance of Truth and Reconciliation for all Canadians, the importance of acknowledging the lands we live and work on, and acknowledging the Indigenous people who came before us. We also recognize the importance of increasing diversity in our leadership team. We successfully obtained approval and funding for a new position, Deputy Department Head of Professionalism, Physician Wellness, Equity, Diversity, and Inclusion. We are hopeful that the surgeon in this new role will help guide our department in these areas. We are also reviewing our hiring processes and ensuring we follow the guidelines outlined by Alberta Health Services (AHS); all search and selection processes must be fair, transparent, and open to all qualified individuals. In this area, we have also revamped the locum hiring process this past year.

It has also been a year for reorganizing. The Ernst and Yonge report of 2019 continued to impact AHS priorities, which affected our department operations. Multiple section leadership positions were eliminated as we tried to align the positions with descriptions in the AHS medical staff bylaws and rules. The Department of Surgery also moved from 14 to 13 sections, with the Section of Surgical Oncology moving into the Section of General Surgery. On a positive

note, as the terms of some positions approached, we were able to update the deliverables and improve the stipends to match the medical affairs honorarium grid. We welcomed two new Section Chiefs and said thank you to their predecessors (Dr. Eric Hyndman replaced Dr. Kevin Carlson in Urology, and Dr. Mauricio Monroy-Cuadros replaced Dr. Anastasio Salazar in Transplant Surgery). We welcomed a new leader to the Office of Surgical Education (Dr. Steve Lopushinsky replacing Dr. Artan Reso) and a new Surgical Services Quality and Safety Physician Lead (Dr. Grant Moffat replacing Dr. Duncan Nickerson). We also recruited some bright young surgeons into clinical positions: Dr. Maleka Ramji (Plastic Surgery, PLC), Dr. Justin Lui (Otolaryngology-Head and Neck Surgery, SHC), Dr. Helen Chung (Ophthalmology, RGH), Dr. Caitlin Yeo (General Surgery, FMC), Dr. Alex Hatchell (Plastic Surgery, PLC), Dr. Aaron Liu (Dentistry, FMC), Dr. Arzy Kafrouny (Dentistry, FMC), Dr. Corey Kwong (Orthopedic Surgery, SHC), Dr. Denis Joly (Orthopedic Surgery, RGH), and Dr. Jeremy Kubik (Orthopedic Surgery, PLC).

By the end of the year, two teams had signed on to clinical alternative relationship plans (ARP) – Thoracic Surgery (all six members) and Pediatric Plastic Surgery (three of five members). Transplant Surgery and Vascular Surgery were close, but some details were still being worked out as the year ended. With new guidelines stating that not all members need to sign on, Pediatric Ophthalmology and Urology ACCESS service submitted applications. The Alberta Health proposals for General Surgery ACCESS and the Trauma group were not seen as viable, and although their stipends were extended until March 31, 2022, work is still needed in these areas. There was positive news for several groups who had their call stipends moved to the provincial specialist on-

Our common goal and the department's vision have not changed: To enhance the ability of surgeons to provide the highest quality care.

call program. This guarantees continued funding for Oral and Maxillofacial Surgery call, Pediatric Dentistry call, Podiatry call, and Retinopathy of Prematurity call.

The year ended with some ongoing challenges, including managing acute care coverage. This challenge mainly affects the Sections of General Surgery, Orthopedic Surgery and Vascular Surgery. Challenges bring opportunities, and the department manager has been working vigorously on a clinical ARP application for family physicians to provide acute care coverage. This will replace the clinical associate extender stipend, which is scheduled to end. The provincial ambulatory overhead project is getting closer to completion and may see some groups planning new ways to deliver onsite care for their patients. The upcoming year brings some optimism: reigniting the surgical recovery plans from Alberta Health and AHS after two years of delays, expansion into Chartered Surgical Facilities, a surgical retreat focused on physician wellness, and revisiting hiring with the idea of job-sharing as we seek information from other departments and other centres with a job-sharing model.

There is no doubt that it has been a tough year, but please stay the course. Our common goal and the department's vision have not changed: To enhance the ability of surgeons to provide the highest quality care. We are here to support you.

Sincerely,
Frankie O.G. Fraulin MD FRCS
**Clinical Professor, Cumming School of
Medicine, University of Calgary**
**Deputy Department Head, Governance
and Physician Services**
Calgary Zone, Alberta Health Services

LETTER FROM THE DEPUTY DEPARTMENT HEAD – SURGICAL ACCESS IMPROVEMENT



Dear Colleagues and Friends,

The Alberta Surgical Initiative (ASI), which seeks to improve access to surgery for Albertans, is now more than two years old. The timing of the initiative has been affected by the COVID-19 pandemic, with waves of infections causing operating room shutdowns to support critical care. In short, we have moved in the other direction and are seeing reduced access and surgical wait times now even more “out of window” than before the pandemic. Out of necessity, the ASI has increased its focus on limiting disruption, and now with some respite from disruption, it has moved to the recovery of services. Giving timelines for recovery is perhaps not useful as the road ahead remains quite uncertain.

Despite these problems, there has been some success in the Section of Ophthalmology. Chartered Surgical

Facilities (CSFs) have proven resilient in the pandemic, and performing an increasing volume of cataract surgeries is bringing the waitlist down to near clinically appropriate targets. A new contract for cataract surgery in CSFs has been completed and is awaiting implementation with the two successful proponents. Limiting the sites able to do these procedures to only two CSFs, has introduced some uncertainty and unhappiness within the section.

A tendering process for CSFs for orthopedics is well underway. The outcome will be a comprehensive program of day surgery and overnight stay for all subspecialties of orthopedic surgery. It is hoped that transferring some of these surgeries out of the hospital will improve patient access to surgery for orthopedics and other sections through backfill. Request for proposals for CSF contracts in other sections will likely follow the completion of this process.

The ASI is about much more than the provision of surgery. It is an initiative to support our patients on their journey through surgery.

The ASI is more than the provision of surgery, though. It is an initiative to support our patients on their journey through surgery, including pre and postoperative care. A major aspect of the ASI has been labelled the “specialty access bundle.” This initiative intends to break down the barriers between the patient and surgical specialist. It involves getting advice to primary care providers through “specialist link” or “e-referral advice.” While these interruptions to our daily work may be perceived as annoying, they are highly useful to our referral base and very highly regarded. Much work has been put into developing pathways to ease our patients’ movement through the system.

A lot of work has been put into developing pathways to ease our patient’s movement through the system.

Central Access and Triage (CAT) is a central pillar for ASI. While waitlists are unlikely to go away, it is increasingly recognized that using a waitlist to allocate OR resources is not in the patient’s best interest. It encourages the development of long waitlists that can extend into years. Waitlists can also be quite asymmetric. Many of our sections

have been tackling this problem for many years. Indeed, Cy Frank’s Orthopedic programs have been pioneers in this area. ASI seeks to build on these successes to develop a more comprehensive Central Access and Triage program for the whole province. It is a very ambitious project. To date, the Sections of Orthopedics and Urology have established working groups and are developing the process, including referral forms and pathways. The ophthalmology working group is on hold pending more consultations with ophthalmologists throughout the province. The Sections of Vascular and Thoracic Surgery are next on deck. The idea is to have a CAT hub with a single contact to receive and distribute all referrals. Next available surgeons will be the default, with options to refer to a specific provider. This is clearly a patient-oriented process. Presently, Calgary is leading this initiative but coordination and coverage of all five zones in the province, with a comprehensive and robust system, is the ultimate goal.

Despite our pandemic setbacks, progress is happening. I will do my best to keep everyone informed, and I am happy to address concerns.

Sincerely,
Francis Sutherland MD FRCS
Professor and Deputy Head, Surgical Access Improvement
Department of Surgery, Cumming School of Medicine
University of Calgary, Alberta Health Services

UPDATE FROM THE OFFICE OF SURGICAL EDUCATION



Surgical education was forced to retool itself during the past two years of COVID-19. We saw an expansion of web-based learning and remote patient care while optimizing technical skill development in a setting of decreased case volumes. There were lessons learned, which included recognition of the physician wellness initiatives across our training programs. Access to world-class high-fidelity simulation was maintained through the tremendous efforts of our colleagues at the Advanced Technical Skills Simulation Laboratory (ATTSL), KidSim, e-Sim, and other site-based groups. Opportunities for training must not be lost as we emerge post-pandemic. Education needs to be a priority when plans are operationalized to address waitlists and surgical backlogs.

The efforts to teach, be it an undergraduate small group or a subspecialty CME workshop, are inadequately recognized, particularly when those individuals are at risk of burnout trying to deliver patient care. One of the Office of Surgical Education's (OSE) goals is to build educational capacity by advocating for equitable remuneration,

ensuring opportunities for career advancement, and recognizing those who go above and beyond. In the last year, two very deserving individuals, Dr. Wayne Rosen and Dr. Jeremy LaMothe, were nominated by the DoS and Cumming School of Medicine for the John Provan Outstanding Undergraduate Surgical Educator Award. Similarly, two residents, Dr. Patrick Vallance (General Surgery) and Dr. Annalise Abbott (Orthopaedic Surgery), were honoured with the Martin T. Spoor Memorial Award for their commitment to providing high-level patient care and displaying leadership, mentorship, and compassion.

I would also like to recognize the work of Drs. Tito Daodu and Gwen Hollar in developing curriculum and workshops incorporating structural competencies and anti-racism. We must integrate the principles of diversity, equity, and inclusion at every level of our educational structure to truly represent the community we serve. We must seize the opportunity to develop a pipeline that is critical to our future surgical workforce.

The upcoming academic year is big for our residency programs, with a Royal College Accreditation planned for September 2022. We currently have 89 residents in the DoS across ten programs, and we thank each of our highly dedicated Program Directors and Program Administrators. The amount of work that goes into an accreditation, let alone during the transition to Competency by Design, is unfathomable and must be recognized.

I am excited for the coming year and our ability to restart in-person activities. The Surgical Foundations Program recently hosted a successful Teach the Teacher event in Banff for all of our first-year trainees. In addition to creating further faculty development opportunities, I hope to bring together interested surgical educators to grow ideas and educational research. Finally, the activities of the OSE rely heavily on the efforts of our coordinator, Deb Charlet, for whom we are most grateful. Please reach out to me at any time should you have ideas to elevate the education platform in the DoS.

Undergraduate Surgical Education

Dr. Jeremy LaMothe, an orthopedic surgeon, is the Clerkship Director. The provision of core clerkship surgical

education has been very challenging. Rotation consistency has not been possible due to unpredictable operative shutdowns, clinic cancellations, and educators needing to isolate or quarantine. Faculty have gone above and beyond to accommodate the clinical clerks by allowing last-minute rotational changes and occasionally accepting one or more clerks than scheduled. This is during a time when there are more students due to the overlapping clerkship schedules. Our faculty were early adopters of recorded teaching and Zoom seminars. As a result, the pivot to online learning was relatively seamless, and we fulfilled the clerkship educational requirements. The increased educational demands come at a time of unprecedented educator burnout and budget cutbacks. Despite this, the surgical clerkship rotation is receiving excellent feedback, with preceptors receiving several accolades from students and residents recognized for providing outstanding education. We will strive to continue providing the same high-quality education during the next year. The next accreditation cycle is approaching, and identified issues include work hours restrictions and the provision of midterm feedback. We are managing these issues well and will continue to do so.

We are excited for the coming year and our ability to restart in-person activities.

Office of Surgical Fellowship

Dr. Amin Kherani, an ophthalmologist specializing in retina, is the Director of the Office of Surgical Fellowship (OSF). Everyone has benefited from the dedication and valued contributions of the 36 surgical fellows within the 27 programs led by our outstanding fellowship program directors. Despite the pandemic challenges, educational and academic activities have remained active and strong. We recently restructured and outsourced our funding model. The principles of research symposia, led by Dr. Claire Temple-Oberle, was well received and

89 *surgical residents & extended residents*

36 *surgical fellows*

successful. The advanced fellowship programs will aim to gather for a graduation and research day if restrictions permit. OSF activities are only possible due to the dedicated efforts of our coordinators, Bernice Mina-Buna and Katelyn Boomer. Thank you for all your help.

Continuing Medical Education

Dr. Derrick Randall, an otolaryngology-head and neck surgeon, is the Continuing Medical Education (CME) Lead. The typical CME offerings were truncated or cancelled during the last year due to COVID-19, but we plan to restart activities as restrictions on gatherings and travel are adjusted. City-wide rounds continued virtually and were successful. The biggest challenge facing CME is the transition back to in-person rounds. We need to balance the value of in-person versus virtual events, acknowledging the increased attendance with the quality of engagement and content internalization. This is an ongoing topic as the accessibility improvements gained during COVID have shifted how some people obtain CME. Consideration is being given to formal CME accreditation for city-wide rounds, but this would require a substantial modification to the way rounds are planned and delivered.

Dr. Steven Lopushinsky

Director of the Office of Surgical Education, Department of Surgery, Cumming School of Medicine, University of Calgary, Alberta Health Services

UPDATE FROM THE OFFICE OF SURGICAL RESEARCH



The Director of the OSR reports to the Head of the Department of Surgery. The OSR membership meets every third month to develop and monitor directives of the OSR. Directives include:

- Organizing internal research funding opportunities, including adjudication, accounting, and progress reports.
- Planning and executing the DoS annual Surgeon's Day Research Symposium.
- Providing statistical support for surgeons' research projects.
- Providing research facilitation services, including internal peer review, identification of DoS research needs, and coordination with research administration within the University of Calgary and Alberta Health Services.

OSR Director

Dr. Michael Monument was appointed Director of the OSR in February 2020. Dr. Monument is an orthopaedic surgeon-scientist who runs a pre-clinical sarcoma immunotherapy research lab at the Cumming School of Medicine. His priorities for the OSR are to increase DoS research productivity, support surgical innovation, and increase external funding successes for the department members. Strategic initiatives include providing multi-year catalyst funding for promising research programs in the DoS (supporting resident research, including supporting advanced research degrees), providing biostatistical support, fostering collaborations with the CSM research institutes, and building a systemic culture of research enthusiasm within the DoS.

Surgeon's Day

The 38th Annual Surgeons' Day Research Symposium was held as a virtual event on June 4, 2021. We were honoured to have Dr. Mary Brindle (University of Calgary) and Dr. Jonathan White (University of Alberta) join our program as the invited McMurtry and McPhedran lecturers. Our scientific program consisted of faculty research presentations, a resident research showcase, the Peter Cruse award, and the 'Sharpest Knife' live grant competition.

- Dr. Alysha Keehn (Section of General Surgery) won the top resident research prize for her presentation, "Determining research priorities for young women with breast cancer: a priority setting partnership."

Vision

The Office of Surgical Research exists to help surgeons achieve research excellence.

Mission

By fostering and facilitating programs aligned with the four research pillars within the Department of Surgery, the Office of Surgical Research will educate, promote, and invest in surgeons working in teams on innovative and impactful research.

The Office of Surgical Research (OSR) exists within the Department of Surgery (DoS) to:

- Offer direction and support to researchers.
- Foster collaborations between thematically aligned institutes within the University of Calgary.
- Enhance internal grant review processes to increase the success of external funding competitions.
- Offer assistance in formulating research policy, direction, and goals within the DoS.

- Dr. Michael Mak (Section of Ophthalmology) won the runner-up resident research prize for his presentation, "An affordable, open-sourced 3D printed Frenzel goggle for the neuro-Ophthalmology clinic."
- Dr. Derek Waldner (Section of Ophthalmology) was awarded the Peter Cruse award and lecture for his medical student research project, "Segmental Gonioscopy-Assisted Transluminal Trabeculotomy (GATT): Comparison of Superior vs Inferior Hemisphere Outcomes."
- Dr. Laurie Hiemstra (Section of Orthopaedic Surgery) won the Sharpest Knife live grant competition for her proposal, "Gender Equity and Inclusion for Canadian Orthopaedics."

The 39th Annual Surgeons' Day will be held as an in-person event at the Libin Lecture theatre on June 24, 2022. The OSR will be prepared to pivot towards another virtual format should public health guidelines change closer to June.

Grants & Awards

The OSR sponsored 17 research grants and awards in 2021 for a total funding envelop of \$161,000. As a new funding initiative, the OSR launched the Pathways to Success award, a renewable three-year award (\$50,000/ annum) developed to support DoS researchers and/ or research groups that are striving towards obtaining stable, external funding to support their multi-year research initiatives. This funding opportunity will also encourage applicants to align with a CSM research institute and engage in formal internal peer review.

- Dr. Eric Hyndman (Section of Urology) and Dr. Ganesh Swamy (Section of Orthopaedic Surgery) were both awarded the 2021 Pathways to Success Award.
- Dr. Adrian Harvey (Section of General Surgery), Dr. Justin Yeung (Section of Plastic Surgery) and Dr. Patrick Gooi (Section of Ophthalmology) were awarded COVID-19 awards to investigate how the ongoing COVID-19 pandemic has influenced surgical care and outcomes.
- A total of seven Calgary Surgical Research and Development Fund (CSRDF) grants were awarded, supporting both faculty and resident research across the Department.
- Five open access awards were provided to department members to help offset the costs associated with open-access publication fees.

Surgeon Scientist Program

Since 2001, the DoS and OSR have supported the Surgeon Scientist Program (SSP), which provides salary support to surgical residents to pursue dedicated research training and obtain a graduate degree (MSc or PhD). In 2021, Dr. Marina Rosa Filezio from the Section of Orthopaedic Surgery was awarded the SSP award for her research study "The accuracy and efficacy of virtual assessment vs. in-person assessment for acute pediatric fractures." She is supervised by Dr. Fabio Ferri de Barros, pediatric surgeon in the Section of Orthopaedic Surgery. The OSR believes that this funding opportunity is a valuable resource to encourage scholarly activity within the DoS. Surgical residents enrolled in thesis-based graduate programs provide high-quality research for DoS faculty while developing the enthusiasm and critical skills required to pursue careers in academic surgery. The funding for this initiative is limited, and we estimate exhausting these funds by 2025. The OSR will collect detailed metrics of the output provided by this funding opportunity to leverage continued support of this initiative.

Strategic initiatives include providing multi-year catalyst funding for promising research programs in the DoS, providing biostatistical support, fostering collaborations with the CSM research institutes, and building a systemic culture of research enthusiasm within the DoS.

Statistical Support

The OSR continues to provide statistical support for Department of Surgery residents, fellows, and faculty. Consultation and support can be obtained for all aspects of project design, analysis and publication. To obtain statistical support, please visit the OSR website (<https://cumming.ucalgary.ca/departments/surgery/research/statistical-support>).

Dr. Michael J. Monument MD MSc FRCS(C)
Director of the Office of Surgical Research,
Department of Surgery, Cumming School of Medicine,
University of Calgary, Alberta Health Services

UPDATE FROM THE OFFICE OF SURGICAL QUALITY



Vision

A culture of continuous quality improvement within the Department of Surgery (DoS) – Calgary Zone, resulting in an improved patient experience, enhanced clinical outcomes, optimized health care costs, and a positive caregiver experience.

Mission

The Office of Surgical Quality (OSQ) has used the three pillars of quality - effectiveness, efficiency, and safety - to develop a framework based on shared learnings, data integration, and identified core clinical metrics. The framework is used to generate quality improvement projects, guide resource allocation, and establish a reporting map for surgical quality improvement initiatives in the Calgary Zone.

Values

An environment that promotes respect, transparency, collaboration, complete data sharing, and accountability. This caring culture of performance stresses improvement, not sanction.

2021 Highlights

- The COVID-19 pandemic has put many quality improvement (QI) projects on hold, but it has also provided an opportunity for the OSQ to create a stronger structure and define clearer priorities.
- Four OSQ goals have been defined and reviewed with DoS leadership: QI priorities, QI education, culture change, and tracking results.
- The OSQ continues to provide support to surgical sections, offering support in six key areas: QI project methodology and QI tool training, brainstorming facilitation, improvement project facilitation, solution prioritization, process mapping, and data analysis.
- Planning is underway for an in-person QI Day once COVID-19 restrictions permit. We intend to invite QI leads and all others interested in QI.
- Francisco Aguirre joined the OSQ as a Senior QI Consultant. His background in engineering, AHS process improvement, and management allows the OSQ to provide rigorous and thorough QI project planning and execution. We thank Melissa Whidden for her dedication and hard work as our previous consultant, and we wish her well in her new AHS role.
- Jennifer Bolt was also hired to support OSQ data analysis. This new role facilitates our data research and dashboard development and enhances the ability to create custom analytics.

Calgary Zone Surgical Quality Council

- Monthly meetings continued in 2021. Based on council member feedback, the focus of the first half of the 2021-2022 academic year was QI education, and the second half will focus on projects from the QI leads and NSQIP teams. Each surgical section from the DoS has a QI Lead who attends the council meetings and presents their work every two years. The NSQIP teams attend the council meetings and present every second year. Recordings of our meetings are posted on the OSQ SharePoint for review.

DoS Section QI Leads

- The DoS section QI Leads are Dr. Ryan Rochon and Dr. Grant Moffat (General Surgery), Dr. Miller Smith (Oral Maxillofacial Surgery), Dr. Emmanuel Illical (Orthopedic Surgery), Dr. Fabio Ferri de Barros (Pediatric Surgery), Dr. Kate Elzinga (Plastic Surgery), Dr. Karim Manji (Podiatric Surgery), Dr. Colin Schieman (Thoracic Surgery), Dr. Kam Kaler (Urology), and Dr. Kenton Rommens and Dr. Paul Petrsek (Vascular Surgery). At the end of 2021, Ophthalmology and Otolaryngology are currently vacant.
- A survey was collected from our QI leads to gather information on current projects and their status. Twenty-five projects were identified in nine sections. This survey has been effective in obtaining up-to-date information on the needs of our QI leads and the QI projects of our sections. We plan to collect this information annually.
- All QI leads have been continuing work on opioid optimization, a DoS and AHS priority, to improve patient safety and outcomes. The OSQ has been working on patient education handouts regarding pain management, including opioid use, for peri-operative care with other stakeholders.
- QI leads also work on a second project based on the priorities of their section.
- The Section of Thoracic Surgery continues to be a leader in QI. They are currently working on two major projects:
 - 1) Optimizing opioid prescribing in thoracic surgery (lung resection). This project is in its final stages. A documentation and a tracking tool (control chart) have been created and will be shared once complete.
 - 2) Optimizing length of stay after esophagectomy. This project is in the solution implementation stage and will also be shared as soon as it is complete.

The OSQ continues to provide support in QI project methodology and QI tool training, brainstorming facilitation, improvement project facilitation, solution prioritization, process mapping, and data analysis.

- QI is a mandatory part of the College of Physicians & Surgeons of Alberta (CPSA) licensing for physicians. We are creating a QI Basics presentation for QI Leads to present to their section to facilitate the QI component of the Physician Practice Improvement Program <https://cpsa.ca/physicians-competence/ppip/quality-improvement/>.
- Last year, QI lead Dr. Karim Manji was selected as one of Calgary's Top 40 Under 40 by Avenue Magazine. He has been instrumental in developing the Zivot Limb Preservation Centre and reducing major lower-limb amputations for diabetes.

OSQ SharePoint Website

- The OSQ SharePoint has been updated to provide greater functionality, including QI educational resources, QI tools, and DoS section projects for review. In addition, Enhanced Recovery After Surgery (ERAS), National Surgical Quality Improvement Program (NSQIP), Alberta Bone and Joint Health Institute (ABJHI), Cancer Surgery, and Trauma Quality Improvement Program (TQIP) reports are posted. The new site can be accessed at <https://share.albertahealthservices.ca/teams/DOSQuality>. Please contact Francisco.aguirre@ahs.ca for access.

Dr. Kate Elzinga, Plastic Surgery

Interim Director of the Office of Surgical Quality,
Department of Surgery, Cumming School of Medicine
University of Calgary, Alberta Health Services

Francisco Aguirre

Senior Quality Improvement Consultant
Department of Surgery, Calgary Zone

UPDATE FROM THE EVIDENCE DECISION SUPPORT PROGRAM



Building on the momentum of our Evidence Decision Support Program (EDSP) v2.0 launch last year, we continued to reinvigorate our program to support evidence-based decision-making. As part of the Surgery Strategic Clinical Network (SSCN) and the Department of Surgery-Calgary Zone, the EDSP's role is to provide a unified approach locally and provincially around evidence-based evaluation and the introduction of new health technology and innovation. We act as a conduit of information and understanding to support operational, educational, and research efforts while providing a pathway to operationalizing perioperative innovation at the site, zone, program, and provincial level. We are led by an interdisciplinary team of physicians, researchers, directors, and managers.

In 2021, the EDSP welcomed three new members, including Dr. Erica Lester, trauma surgeon and economist; Dr. Donal Finnegan, anesthesiologist and AHS Clinical

Knowledge Lead; and Lorraine Oleski, Patient Care Manager DTC Surgical Suites at Royal Alexandra Hospital. Their role will be to assist in integrating research evidence with local operational management information to make evidence-informed recommendations.

The year also saw us expand support across the entire perioperative clinical community, including the Departments of Surgery, Obstetrics and Gynecology, and Anesthesiology and Pain Medicine.

ACCOMPLISHMENTS AND HIGHLIGHTS

- Continued refinement of the EDSP evaluation pathways to match deliverables to decision-making needs. This included the introduction of the easy email intake and consultation pathway. Our pathways include health technology requests (technology evaluations), evidence packages (evidence assessments/guideline evaluations/recommendations), technology checks (quick reviews of routine technologies and devices), quality improvement projects (research and evidence reviews to support decision-making), and change improvement projects (research and evidence reviews requiring formal deliverables).
- Created a publically available project list and status table on the EDSP webpage, updated quarterly to provide easy access for surgical stakeholders and knowledge users. The page houses ongoing and completed EDSP reports and recommendations at: <https://www.albertahealthservices.ca/assets/about/scn/ahs-scn-surg-edsp-projects.pdf>
- Created a new EDSP Applied Science Research and Training Program for students, residents, fellows, preceptors, and mentors to engage in health systems research arising from and supporting EDSP projects. Dr. Ammar Khan (glaucoma and anterior segment surgery fellow) and Dr. Jonathan Wong (preceptor) will focus their evaluation on the impact of a minimally invasive glaucoma surgery program for Alberta. The EDSP also supervised an advanced practice nursing intern from the Master of Nursing Program, Thompson Rivers University School of Nursing, focusing on provincial perioperative policy development and impacts.

- The EDSP, Provincial Patient Safety, Clinical Engineering, and Medical Device Safety are leading the development of an off-label use evaluation, oversight and approvals pathway for non-surgery innovators across the province. The existing EDSP pathways for urgent, off-label, and special access program use in surgery would be adapted to the larger clinical community. A pilot will occur in 2022 and target emergency and critical care pandemic-approved implementations.
- The EDSP acted as a scientific, technical and/or health systems impact consultant at the provincial and national level for several agencies, including the Canadian Agency for Drugs and Technologies in Health (CADTH), Health Quality Ontario (HQP), Ontario Health Technology Advisory Committee (OTAC), BC Health Technology Assessment Committee (HTAC), Institute of Health Economics (IHE), and Coordinated Accessible National (CAN) Health Network.
- Worked collaboratively with provincial pharmacy Drug Utilization, Information and Stewardship (DUIS) to support decision-making by the Alberta Health Services (AHS) provincial Drugs and Therapeutics Committee (DTC) for the addition of new anesthesia and pain medicines to the AHS Provincial Drug Formulary.
- Established province-wide perioperative innovation intake pathways with Innovation, Evidence & Impact Team (IEI), Innovation and Business Intelligence (IBI), and Contract Procurement and Supply Management (CPSM).

GOALS AND FUTURE DIRECTIONS

- Starting in 2022, the EDSP and the SSCN are co-leading a surgery Lippincott Procedures and policy review of over 500 surgery policies and procedures to develop province-wide point of care resources.
- EDSP continues to work with the Provincial Surgical Policy Workgroup to update and reformat the Provincial Surgical Skin Preparation manual to include current best evidence for adult and pediatric patients. The updated manual will launch in 2022.

35 health technology and innovation intakes

9 reports

2 health technology evaluation trials

6 provincial initiatives

- Collaborate with the Office of Surgical Quality to develop an education awareness program for evidence collection and appraisal in surgical quality projects.
- Support and promote clinician-led research in new health innovations and technologies in surgery, including the implementation, management, and impact on patients, practitioners, and programs.

For more information, visit the AHS website (albertahealthservices.ca/scns/edsp.aspx) or the University of Calgary website (cumming.ucalgary.ca/departments/surgery/programs/evidence-decision-support-program). To customize your health technology request, please contact EDSP@ahs.ca or the EDSP Research Scientist at tara.klassen@ahs.ca.

Dr. Robert Hart MD Msc, FRCS

**Co-Chair and Clinical Lead Calgary, Central, South Zones – Evidence Decision Support Program
Department of Surgery, Cumming School of Medicine,
University of Calgary, Alberta Health Services**

Dr. Tara Leah Klassen, PhD

**Research Scientist
Evidence Decision Support Program, Provincial
Advisory Council on Surgical Innovation
Department of Surgery & Surgery
Strategic Clinical Network**



The Section of Dentistry and Oral Health consists of two divisions: the Division of Adult Dentistry and the Division of Pediatric Dentistry.

Our section provides comprehensive oral health services to adult and pediatric patients through hospital dental clinics. The service also provides ambulatory care services in partnership with the Riverview Surgical Centre through its Chartered Surgical Facilities contract.

The Section of Dentistry and Oral health is striving to be a valuable service to:

1. The hospital, cancer centre, emergency rooms, and multidisciplinary teams of the Calgary zone.
2. Our patients, some of whom represent the most vulnerable health sectors due to their complex medical conditions, unique dental and oral challenges, and social challenges.

The section continues to be actively involved in the ongoing planning of the new Calgary Cancer Centre Dental Clinic. We look forward to moving into this new facility in the next 18 months.

ACCOMPLISHMENTS AND HIGHLIGHTS
Division of Adult Dentistry

- Foothills Medical Centre (FMC) Dental Clinic saw continued growth and care with four regular dentists.
- The FMC team is working on a novel solution for dry mouth relief, and research is being conducted in partnership with the University of Alberta.
- Kyla Craig and Crystal Ormond are the Patient Care Managers for the FMC Dental Clinic.
- Dr. Adham Fares provided an invaluable service as acting site lead for the FMC Dental clinic in 2021.
- Dr. Aaron Liu and Dr. Arzy Kafrouny are the newest additions to the FMC Dental Clinic.
- Operating room cases increased, despite the slowdown and the increased restrictions due to COVID-19. The FMC Dental Clinic provided 845 healthcare requested consults and completed over 3,636 procedures.
- Clinic staff look forward to the coming modernizations once the new clinic opens in the Calgary Cancer Centre.

Division of Pediatric Dentistry

- The division is composed of 20 pediatric dentists. They have AHS clinical privileges at the Alberta Children's Hospital (ACH) and all Chartered Surgical Facilities.
- Dr. Marie Claude Cholette was the Division Chief of Pediatric Dentistry until the end of 2021,



Dr. Graham Cobb
Section Chief of Dentistry and Oral Health

- when she made the decision to step down from the position. She continues as the ACH Dental Clinic Director and remains an examiner for the Royal College of Dentists of Canada.
- Dr. Kari Badwi is welcomed as the new Division Chief of Pediatric Dentistry.
 - The ACH Dental Clinic staff includes three part-time and five casual pediatric dentists, one orthodontist, and two oral and maxillofacial surgeons (OMFS). All members are part of the division's after-hour emergency service.
 - The clinic offers comprehensive dental, orthodontic and oral care to pediatric patients with medical complexities. Modalities include communicative behaviour guidance/non-pharmacological behaviour modification, nitrous oxide inhalation sedation, minimal/moderate oral sedation, and general anesthesia in the operating room. ACH dental specialists are also consultants for the Cleft Lip and Palate Clinic, the Velopharyngeal Insufficiency Clinic, the Craniofacial Clinic, and the Temporal Mandibular Joint/RheumatologyClinic.
 - Dr. Jennifer Smith is the newest dental team orthodontist.
 - Dr. Darrell Kemp has retired from his position within the cleft/craniofacial dental team.

3,636 *procedures in the FMC Dental Clinic*

845 *health care requested consults in the FMC Dental Clinic*

- Dr. Catherine Cho will be a new addition to the cleft/craniofacial dental team in 2022.
- Dr. Smith has stepped down from his AHS privileges after 52 years. In 1972, Leonard moved to Calgary, and his journey through Pediatric Dentistry began. He opened Dental Care for Children in 1985 and spent the next 35+ years building this practice. Leonard brought many pediatric dentists to Calgary, and pediatric dentistry would not be what it is today without his 50-year history of mentorship and innovation. We thank Leonard for his continued dedication to pediatric dentistry and consistent care for all his patients.

Education

- The one-year postgraduate General Dentistry Hospitalist Fellowship Program has taken off at the FMC Dental Clinic. This program involves hospital dental training for general dentists with rotations throughout all specialties, including anesthesiology, pediatrics, oral and maxillofacial surgery, ENT, and many more. This program will have two residents each year, beginning June 1, 2022.

CHALLENGES AND WORKFORCE PLANNING

- Long waitlists for adult dentistry procedural sedation and access to the OR continue to be an ongoing challenge.
- Staffing levels for support of the Adult Dental Clinic also continue to be challenging.
- Due to budgetary constraints, the ACH Dental Clinic faces limitations in the growth of service as well as maintaining adequate professional staff and support staff. Recruitment is needed to meet patient needs and workforce planning.
- Transmission risk mitigation in community and public health clinics for dental AGMP procedures during the Covid-19 pandemic was challenging.
- ACH Dental Clinic continues to look for areas where specialized pediatric dentistry services can expand. Future areas of interest it include:
 - Maxillofacial Prosthodontic Clinic.
 - Saliva Control Clinic (multi-disciplinary).



The Section of General Surgery has 45 members and performs surgery at four adult Calgary hospitals, including the Foothills Medical Centre (FMC), Peter Lougheed Centre (PLC), Rockyview General Hospital (RGH), and South Health Campus (SHC). Our surgeons provide care for a wide variety of benign and malignant diseases, including diseases of the head and neck, endocrine, breast, upper gastrointestinal, hepatobiliary, colorectal, abdominal wall, and surgical oncology, as well as Acute Care General Surgery and Trauma.

ACCOMPLISHMENTS AND HIGHLIGHTS
Education

- Our General Surgery Residency Training Program has 23 residents and is led by Dr. Ryan Rochon, Program Director (PD), and Dr. Mike Kwan, Assistant PD.
- We have Fellowship Training Programs in Colorectal Surgery, Surgical Oncology, Endocrine Surgery, Hepatobiliary Surgery, Upper GI Surgery, and Trauma Surgery.
- Dr. Hyea Min Yoon won the General Surgery Residency Teacher of the Year award.
- Dr. Mike Dunham won the Off-Service Preceptor

Research

- The section demonstrated outstanding research productivity despite the pandemic, having over \$3.6 million in active grants in 2021.
- Members contributed 90 peer-reviewed publications in 2021.
- Dr. Chad Ball led the section with 44 peer-reviewed publications in 2021. He also contributed six textbook chapters and was the editor for an additional textbook.
- Dr. Paul McBeth received the CSM Clinical Research Award.
- Dr. Alysha Keehn won first place at the Surgeons' Day Resident Research Showcase.

- of the Year for Emergency Medicine.
- Dr. Grant Moffatt won an award for Resident Mentorship from the PGME.
- Dr. Patrick Vallance won the Martin T. Spoor Award from the Department of Surgery (DoS), an annual award given annually to a surgical resident.
- Drs. Don Buie, Neel Datta, Esti Debru, Mike Dunham, John Graham, Adrian Harvey, John Kortbeek, Paul McBeth, Grant Moffat, Artan Reso, and Hyea Min Yoon received Gold Star Teaching Awards, as did several of our residents.
- Drs. Lea Austen, Oliver Bathe, Neal Church, Renelle Daigle, Gwen Hollaar, Mike Kwan, and May Lynn Quan received Honor Roll awards, as did several of our residents.
- Sadly, this year, we lost one of our best teachers, Dr. Jim Nixon. He will be missed but not forgotten.



Dr. Tony MacLean
Section Chief of General Surgery

Medical Leadership and Administration

- A huge thank you goes to Dr. Elijah Dixon for his Sectional and Departmental activities over the past eight years.
- Dr. Francis Sutherland is the Deputy Department Head – Surgical Access Improvement.
- Dr. Lloyd Mack is the Deputy Academic Head of the Department of Oncology and Chair for Cancer Surgery Alberta.
- Drs. Don Buie and John Heine are the Surgery Site Chiefs for the FMC and PLC. Dr. Mike Dunham completed his time as Interim Site Chief of SHC.
- Drs. Estifanos Debru, Lea Austin, and Michael Dunham are the General Surgery Site Leads at the PLC, RGH, and SHC. Thank you to Dr. Paul McBeth, who covered as the SHC General Surgery Site Lead while Dr. Dunham was Acting Site Chief.
- Dr. May Lynn Quan renewed her role as Medical Director of the Calgary Breast Health Program. She also accepted the General Surgery Site Lead position at FMC starting January 1, 2022.
- Dr. Estifanos Debru renewed his role as Physician Lead, Bariatric Surgery Program.
- Dr. Rohan Lall continues as the Medical Director, Trauma Services.
- Dr. Indraneel Datta completed his term as the Director of Workforce Strategy for the DoS.

ALMOST
3,000

cancer cases, close to 40% of cancer surgery volume for the zone

OVER
\$3.6M

in active grants

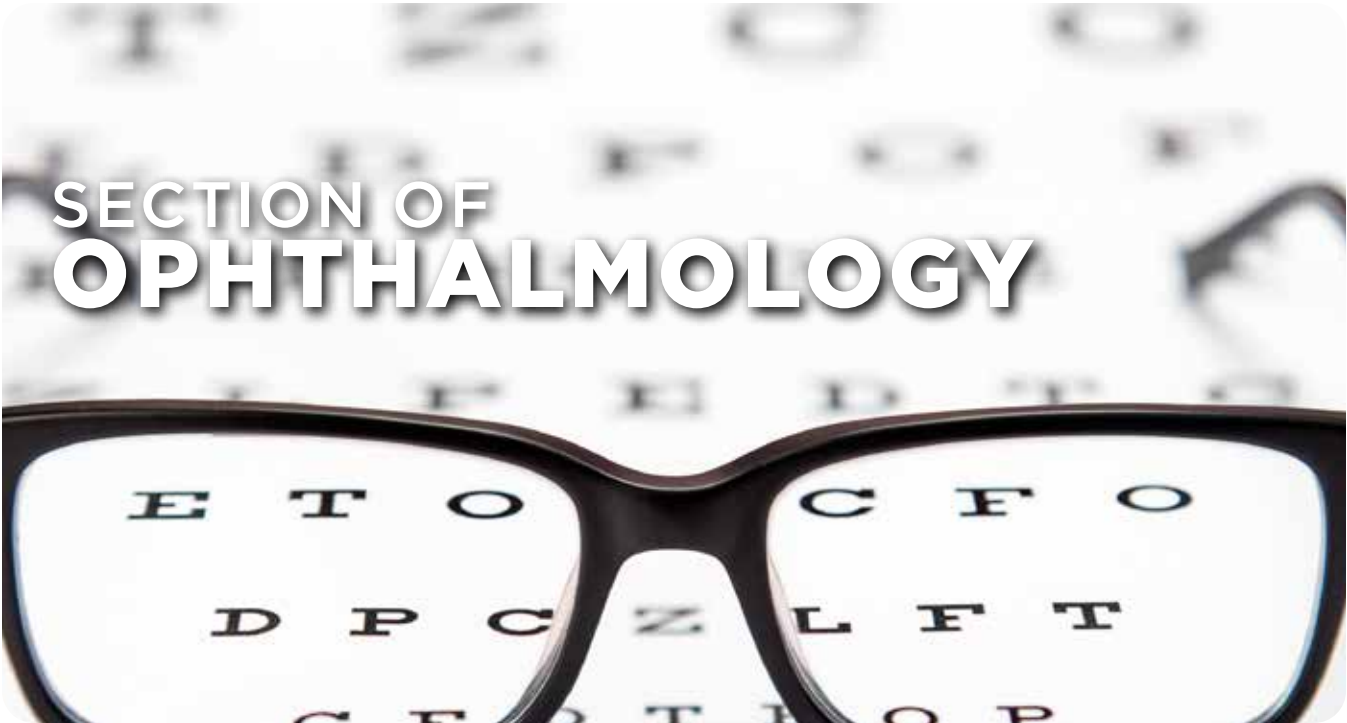
14,000

cases, almost 40% being emergent cases

- Dr. Adrian Harvey is the Director of Faculty, Program, and Student Evaluation. He also moved from a clinical to a GFT appointment in the DoS as an Associate Professor.
- Dr. Gwen Hollaar received the Career Achievement Award from the University of Calgary's Internationalization Achievement Awards.
- Drs. Ryan Rochon and Grant Moffatt were Co-Leads of Quality Improvement and Safety for the section.
- Dr. Moffatt has started as Quality and Safety Physician Lead for the DoS, Calgary Zone.
- Dr. John Kortbeek was appointed as Associate Medical Director of the Advanced Technical Skills Simulation Laboratory (ATSSL).
- Dr. Janice Pasioka was awarded the American Association of Endocrine Surgeons Oliver Cope Meritorious Achievement Award for surgeons who have made true and substantial contributions in the field of endocrine surgery. This is only the 10th time it has been awarded since first introduced in 1985, and Dr. Pasioka is the first female recipient.

CHALLENGES AND WORKFORCE PLANNING

- We are faced with an upcoming house staff workforce shortage, and we are having difficulties with acute care coverage overall.
- Surgical wait times, exacerbated by the pandemic, have been a challenge.
- With the growing and aging population, we expect increased cancer volumes.
- Our workforce is also aging, and we expect to see several retirements in the next five years. We are proactively discussing retirement plans with our most senior surgeons.
- Fostering research despite a lack of GFT positions and protected time is also a challenge.
- Dr. Caitlin Yeo, an endocrine surgeon, was a new recruit to FMC in 2021.



The Section of Ophthalmology provides clinical services through Alberta Health Services facilities, chartered surgical facilities, private offices, and outpatient clinics at the Rockyview General Hospital and the Alberta Children’s Hospital. The section has subspecialists in all areas related to the eye, including retina, cornea, glaucoma, ocular oncology, urgent eye care, neuro-ophthalmology, pediatrics, comprehensive ophthalmology, adult strabismus, thyroid disorders, and low vision.

Though 2021 was a better year than 2020, it still presented several challenges. Because much of ophthalmology is done in chartered surgical facilities, we were able to continue operating during the last three waves of the pandemic. Hospital work was affected, and waiting lists for pediatric ophthalmology services at the Alberta Children’s Hospital and adult procedures at the Rockyview General Hospital were impacted by the OR closures. Our offices were able to continue running, although at lower numbers. The Rockyview General Hospital urgent vision clinic continued to function without interruption, and staffing issues were handled smoothly. We recognize that, as a group, we were more fortunate than many other surgical specialties. However, we are still concerned about patients who are not being seen, either due to the patient being unwilling to seek medical care or limited capacity.



*Dr. Andrew Crichton
Section Chief Ophthalmology*

30

peer-reviewed publications

45

ophthalmologists in the Calgary Zone

10

ophthalmology residents

Fellowship programs in Glaucoma, Oculoplastics, Retina and Oncology.

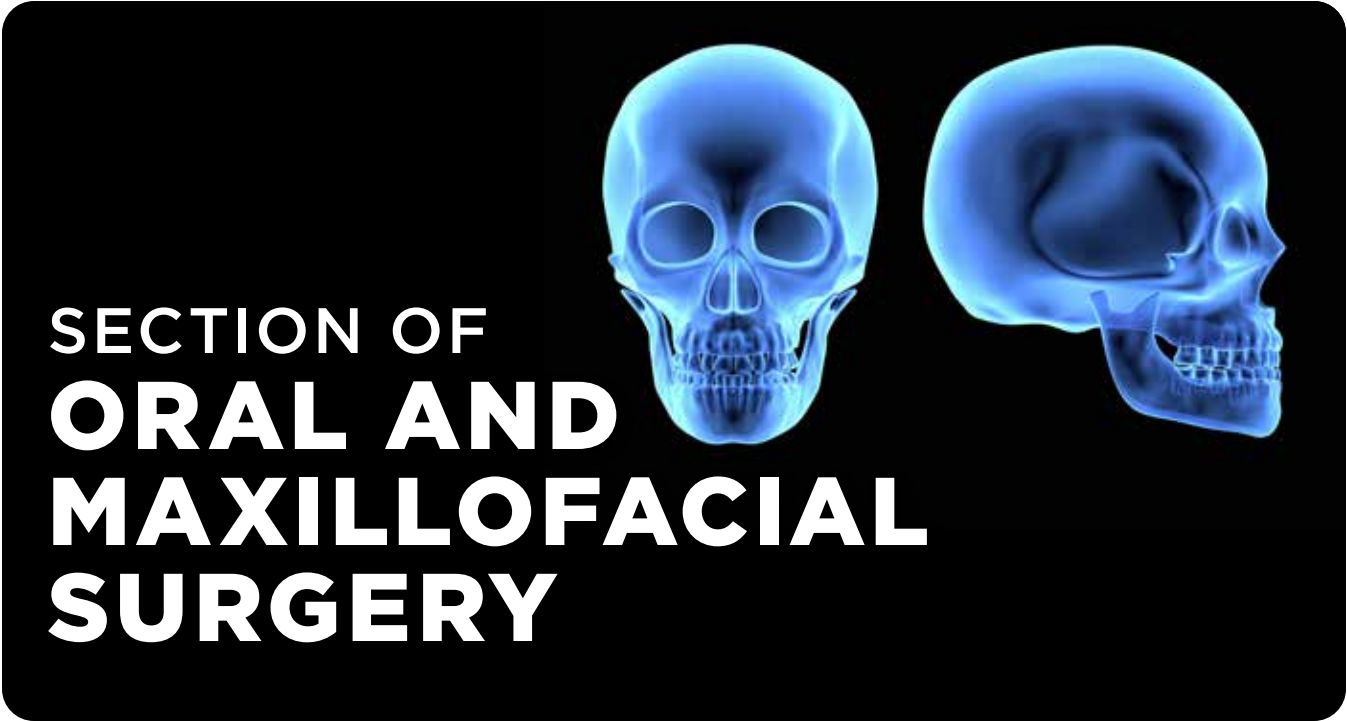
ACCOMPLISHMENTS AND HIGHLIGHTS

- The section accepted two new residents in 2021, Dr. Derek Waldner and Dr. Antoine Sylvestre-Bouchard.
- Two residents graduated, Dr. Ammar Khan and Dr. Alex Ragan.
- Dr. Ahmed AIGHoul was promoted to Clinical Assistant Professor.
- Dr. Stephanie Dotchin was promoted to Clinical Associate Professor.
- Dr. Michael Mak received the 2022 Canadian Association for Medical Education (CAME) Rising Star Certificate of Excellence Award. He was also the winner of the Resident Research Competition.
- Dr. Andy Crichton received the President’s Award from the Canadian Glaucoma Society.
- Dr. Adam Muzychuk received a Best Glaucoma Paper Award from the Canadian Ophthalmological Society.
- Dr. Derek Waldner received the Peter Cruse Award for Best Surgical Research Paper.
- Dr. Etienne Benard-Seguin was selected to give the Best Frank B Walsh Session presentation at the North American Neuro-Ophthalmology Society (NANOS) Annual Meeting. This is one of the most prestigious presentations a trainee can give within Neuro-Ophthalmology.

- Dr. Etienne Benard-Seguin and Abdullah Sarhan were awarded an inspiration award worth \$10,000. Abdullah and Etienne plan to invest their prize in infrastructure to support AI innovations in ophthalmology at the University of Calgary.

CHALLENGES AND WORKFORCE PLANNING

- The biggest challenge facing the Section of Ophthalmology is that surgical services will be contracted from four to two providers. This will cause a major shift in the surgical location for many of our surgeons, but we are hopeful for a smooth transition.
- The waitlists for cataract surgery have reduced significantly due to a recent uplift. We are optimistic that the cataract allocation will be above the historical average and allow us to stay on top of the waiting list.
- The section brought in two recruits: Dr. Helen Chung, our Residency Program Director, and Dr. Paul Huang, our Competency by Design (CBD) Lead. We are close to recruiting a third individual for Quality Improvement, and we are hopeful that we will add other recruits over the next year.
- We intend to restructure the manpower committee. This includes giving it more authority, rebranding the name, and creating terms of reference to provide a long-term strategy.



The Section of Oral and Maxillofacial Surgery (OMFS) has 11 active members and provides surgical services at the Peter Lougheed Centre (PLC), Foothills Medical Centre (FMC), Alberta Children's Hospital (ACH), and Chartered Surgical Facilities (CSF). The section specializes in the treatment of diseases, injuries, and defects in the head, neck, face, jaw, and the hard and soft tissues of the oral (mouth), maxillofacial (jaw), and face region.

Section members provide services at the Cleft Lip and Palate Clinic, Craniofacial Clinic, Dental Clinic, and Temporal Mandibular Joint/Rheumatology Clinic at the ACH. Members also provide services at the Dental Clinic and Head and Neck Tumour Clinic at the FMC. Our section provides call coverage for all Calgary Zone hospitals and urgent care centres, as well as facilities in southern Alberta. OMFS elective surgery is performed at the PLC. The section is committed to advancing the specialty of OMFS and providing excellent quality care to patients.

ACCOMPLISHMENTS AND HIGHLIGHTS

- Dr. Rick Edwards is the Section Chief of OMFS in the Calgary Zone and the PLC Site lead for OMFS.
- Dr. Miller Smith is the ACH Site lead for OMFS.
- Dr. Graham Cobb is the Section Chief of Dental and Oral Health in the Calgary Zone.
- Dr. Simon Touchan is the President of the Association of Oral and Maxillofacial Surgeons of Alberta (AOMSA).
- Dr. Brett Habijanac is responsible for the Chartered Surgical Facilities (CSF).
- Dr. Brett Habijanac is the OMFS representative for the Department of Surgery Peer Support program.
- Dr. Todd Fairbanks is on the PLC operating room Surgical Safety Checklist Committee.
- Dr. Kevin Robertson is the OMFS super user for the Connect Care rollout at the PLC and ACH.
- Drs. Shawn Higashi, Sandeep Dhesi, Todd Fairbanks, Graham Cobb, and Simon Touchan rotate in the OMFS clinic at the FMC Dental Clinic.
- Drs. Miller Smith and Kevin Robertson rotate in the ACH Cleft Lip and Palate Clinic.
- Dr. Miller Smith is the Past President of the Canadian Association of Oral and Maxillofacial Surgeons (CAOMS), and Dr. Graham Cobb is the Alberta Regional Councillor for the CAOMS.
- Drs. Graham Cobb, Miller Smith, and Simon Touchan are examiners for the Royal College of Dentists of Canada (RCDC).



Dr. Richard Edwards
Section Chief of Oral and Maxillofacial Surgery

- Drs. Graham Cobb, Miller Smith, and Kevin Robertson continue their research projects on virtually planned free fibula reconstructions of the mandible and maxilla and alveolar bone graft pathways.
- Dr. Miller Smith is the NSQIP lead Surgical Champion for the PLC.
- Dr. Miller Smith is also the OMFS Quality Improvement and Safety lead and a representative to the Office of Surgical Research. Quality improvement projects include analysis of length of stay for orthognathic surgery and post-operative use of opioids in OMFS inpatients and outpatients.
- Dr. Shawn Higashi is a member of the Alberta Dental Association and College (ADA&C) Sedation Committee.
- Joint surgical cases (Pediatric Plastic Surgery and OMFS) for Cleft and Craniofacial Care.
- Otolaryngology, Plastics, and OMFS for adult cancer pathology and reconstruction.
- Dr. Graham Cobb is on the Head and Neck Tumour Team at FMC and does the Cancer Control Board Adjudication for Oral Health Services.
- OMFS provides TMJ total joint repair arthroplasty services and oral rehabilitation and reconstruction (dental implants) following cancer treatment.

- Increased utilization of CSFs and increased funding for CSFs.
- Plastic Surgery and Otolaryngology-Head and Neck Surgery residents rotated through the OMFS service.

CHALLENGES AND WORKFORCE PLANNING

- Operating room access at the PLC, FMC, and ACH.
- Continuing to increase the budget for CSFs.
- Expanding OMFS in the Alberta Surgical Initiative (ASI) program.
- Increasing the scope of practice for OMFS in the treatment of oral cancer, obstructive sleep apnea, and temporal mandibular joint reconstruction patients.
- Budget for plates, screws, and equipment at PLC.
- Funding for custom-made TMJ prostheses and custom-made plating for orthognathic (jaw) surgery.
- Future risks include decreased access for patients in hospital operating rooms and CSFs as well as decreased funding.
- Challenges will continue to be addressed with AHS and the ASI program.
- Dr. Carl Young and Dr. Doug Vincelli continue to have surgical assisting privileges.

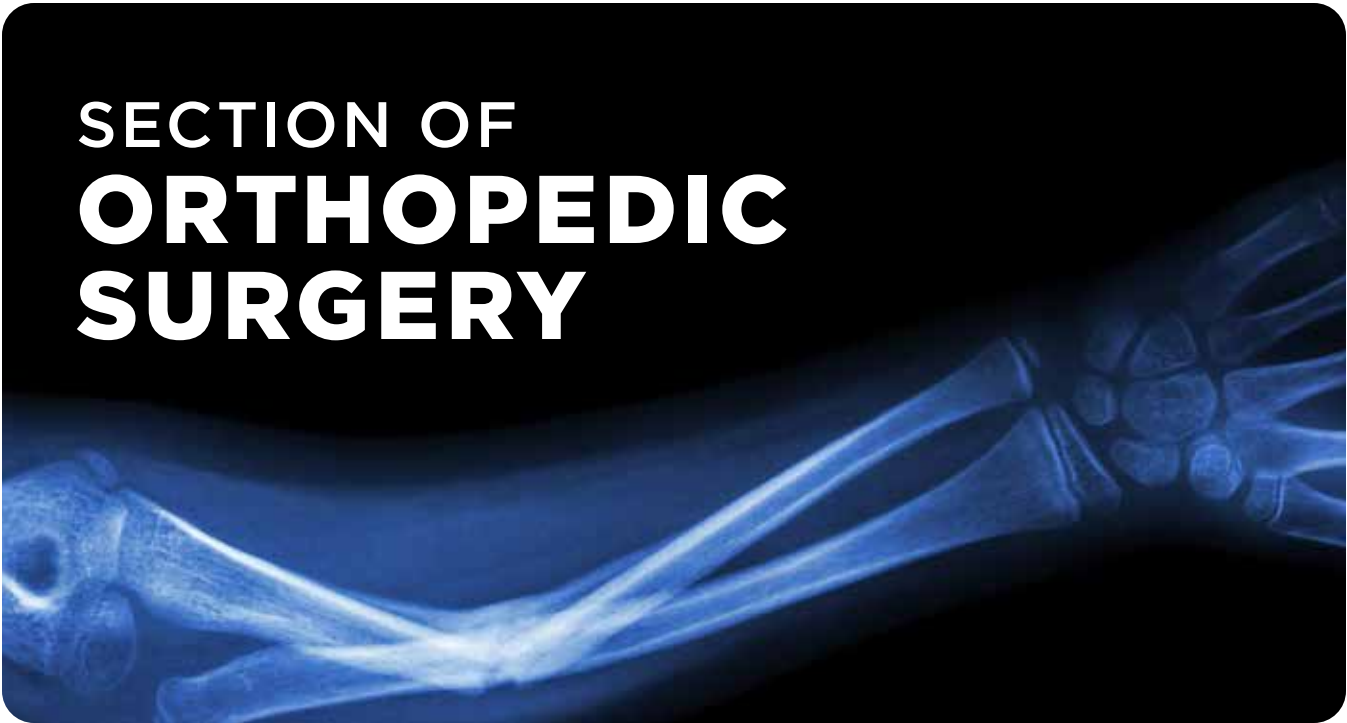
11 surgeons in the Calgary Zone

298 surgical cases completed at the Peter Lougheed Centre

2,171 surgical cases completed in Chartered Surgical Facilities

136 orthognathic (jaw) surgery cases

22 temporal mandibular joint cases



The Section of Orthopaedic Surgery has 68 active members who deliver surgery at the Foothills Medical Centre (FMC), Peter Lougheed Centre (PLC), Rockyview General Hospital (RGH), and the South Health Campus (SHC). In addition, we deliver specialized pediatric orthopaedic care at the Alberta Children’s Hospital (ACH). Orthopaedic surgeons perform surgeries related to the musculoskeletal system, including joint replacement, spine surgery, and reconstruction.

There are 22 residents in the Orthopaedic Residency Training Program, and all sites are engaged in the education of trainees, including medical students, residents, and fellows.

Most of our faculty members and trainees are involved in orthopaedic research, an important pillar of our academic mission. These research activities include laboratory/basic science, clinical, and health service delivery/policy. Our research partners include the Alberta Bone and Joint Health Institute, the McCaig Institute for Bone and Joint Health, and the Bone and Joint Health Strategic Clinical Network.

Section members provide key leadership roles for Alberta Health Services, the University of Calgary, the Bone and Joint Health Strategic Clinical Network, and regional, provincial, and national orthopaedic associations and professional societies. These leadership roles translate into significant impacts for improving patient care by our members.

ACCOMPLISHMENTS AND HIGHLIGHTS

- 68 active orthopaedic surgeons in the Calgary Zone across five acute care sites.
- 22 residents in the University of Calgary’s Orthopaedic Residency Training Program.
- Dr. Cory Cundal was named Orthopaedic Site Chief for RGH. Thank you to Dr. Ed Rendall for his eight years of service in this role.
- Transition to virtual care during the pandemic provided logistical challenges, but it has been widely adopted by the surgeons and clinic staff. Many of these practices will remain post-pandemic.
- The addition of publicly funded and contracted orthopaedic procedures at Clearpoint Health has resulted in additional surgical resources for patients waiting for shoulder, soft tissue knee, foot and ankle, and hand and wrist outpatient surgeries.
- A Research Impact Analysis was conducted to review the return on investment for the Value Add funds that support section research. Over the past five years, \$1.663M of Value Add funding was



Dr. Jason Werle
Section Chief of Orthopaedic Surgery

allocated to 97 research projects, which resulted in 83 manuscripts, 77 abstracts, and 97 presentations at regional, national, and international meetings. Most remarkably, these funds were used to leverage an additional \$4.1M from external sources, meaning for every \$1.00 invested, a return of an additional \$2.46 from external sources was realized. Thank you to Judy Crawford and Dr. Paul Salo for preparing the report, and congratulations to all members of our section and research portfolio for this success!

- Dr. Emmanuel Illical is now the Quality Improvement and Safety Lead for the Section of Orthopaedics. He leads our quality improvement initiatives through a zone-wide QA/QI committee with membership from all acute care sites. Thank you to Dr. Richard Ng for his service in this role over the past few years.
- Quality improvement efforts in hip fracture care zone-wide have resulted in a quicker time to OR across all sites and reduced mortality rates.
- Other quality improvement initiatives include on-time antibiotic prophylaxis and the utilization of tranexamic acid for hip fracture patients. The section is also participating in the department-wide opioid reduction QI project.
- Dr. Elaine Joughin retired from clinical practice at ACH in December 2021. Thank you to Elaine for her years of service within the section and as the Ombudsperson for the department.

68

surgeons in the Calgary Zone

22

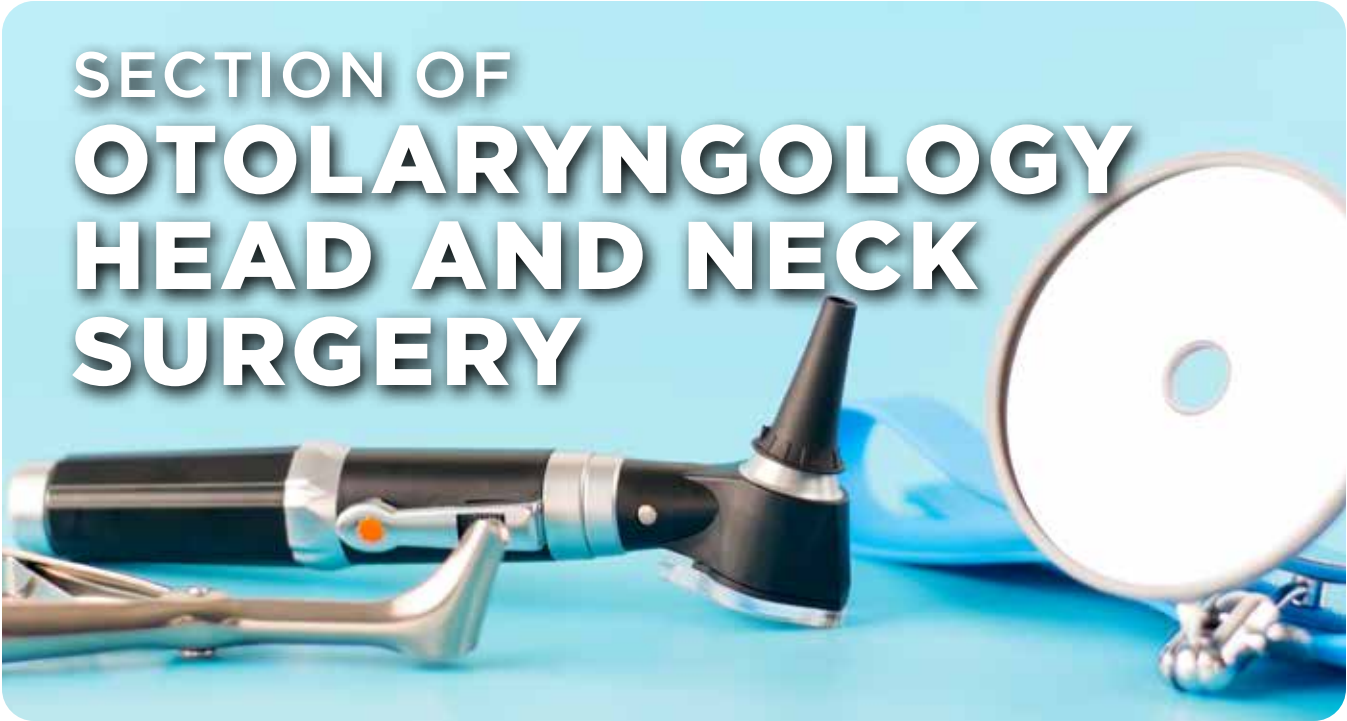
residents in the Orthopaedic Residency Training Program

14,307

surgical cases performed at all five hospitals – a 15% reduction from pre-pandemic levels

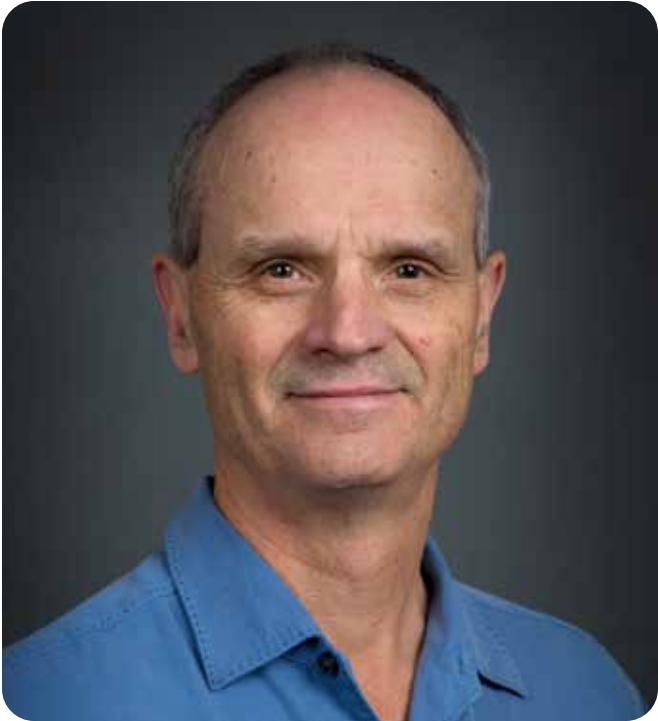
CHALLENGES AND WORKFORCE PLANNING

- Waitlist increases due to COVID-19 for all orthopaedic care in the zone, including consultation and surgery. The Alberta Surgery Initiative (ASI) and pandemic recovery/mitigation efforts will be key to improving access.
- Lack of acute care call coverage at all sites due to reduced resident numbers and a high volume of patients. The ongoing CSA recruitment challenges remain.
- Senior Surgeon policy implementation in a diverse section spread across multiple sites.
- Sustaining leadership positions within the section without adequate financial resources.
- Recognizing academic contributions without Cumming School of Medicine resources to support this work.
- Maintaining surgeon wellness given the above ongoing challenges to surgical care provision.
- PGME accreditation process is occurring in September 2022.
- Dr. Denis Joly was recruited into the Arthroplasty Division at RGH in September 2021.
- Dr. Jeremy Kubik was recruited into the Arthroplasty Division at PLC in September 2021.
- Dr. Cory Kwong was recruited into the Sports Medicine Knee Division at the SHC in October 2021.
- Dr. Meghan Marien will join the Pediatric Orthopaedic Surgery Division at ACH in February 2022.
- Recruitment in 2022 is proceeding for the following:
 - Shoulder surgeon at PLC.
 - Arthroplasty/trauma surgeon at RGH.
 - Pediatric orthopaedic surgeon at ACH.
- The population demand for MSK surgical care is not currently being met, so future recruitment and OR resources will be required. It is hoped that the ASI will assist with this in a sustainable fashion.



The Section of Otolaryngology delivers surgery to all five Calgary hospitals. Our surgeons specialize in providing comprehensive care across the spectrum of otolaryngologic disorders. These specialties include pediatric ENT (ears, nose, and throat), head and neck surgery and oncology, rhinology, skull-based surgery, otology, neurotology, facial plastic and skin cancer surgery, laryngology, and general otolaryngology.

Our section has a highly successful otolaryngology surgery residency training program and accepts one to two residents per year. The program currently has eleven residents. We also support clinical teaching for undergraduate and postgraduates in various disciplines.



*Dr. J. Doug Bosch
Section Chief of Otolaryngology
Head and Neck Surgery*

2,984 *adult surgical cases in the Calgary Zone*

1,518 *pediatric surgical cases in the Calgary Zone*

25 *peer-reviewed publications*

ACCOMPLISHMENTS AND HIGHLIGHTS

- Dr. Ashley Hinthner completed her Royal College certification in Otolaryngology in June 2021. She is currently completing a Head and Neck Surgery Fellowship in Edmonton.
- Dr. Derrick Randall has accepted the CME lead position for the Department of Surgery.
- Dr. Carrie Liu has relocated to Tucson, Arizona, and we thank Dr. Liu for her hard work.
- Congratulations to Dr. Joe Dort on his retirement from AHS in September 2021. We send many thanks for Dr. Dort's hard work and unparalleled research.
- Dr. Justin Lui began his Otology/Neurotology/General practice in July 2021 at the South Health Campus.

CHALLENGES AND WORKFORCE PLANNING

- The main challenge facing our section is meeting the demand for office consultations and, if required, surgical intervention. COVID-19 has worsened this situation, with waiting lists growing exponentially. The most significant limitation is the availability of surgical resources, which limits our ability to recruit new colleagues. We hope that the ASI will allow us to catch up.
- When our section retreat was held in 2019, we discussed how to create a more efficient office consultation process. Since this time, and through collaboration with Specialist Link and eReferral, we have improved consultation access in our section. We look forward to the possibilities of Central Triage as the next step in improving the process for our patients.
- The section was not successful in recruiting a head and neck surgeon who was also accomplished in research; a change in direction will proceed in 2022.



The Section of Pediatric Surgery delivers surgery to the Alberta Children’s Hospital (ACH). Members are from pediatric general surgery, pediatric orthopedics, pediatric plastic surgery, pediatric otolaryngology, pediatric urology, and pediatric ophthalmology. The ACH’s surgical services are complete with surgeons from the Department of Surgery’s Section of Dentistry and Section of Oral & Maxillofacial Surgery, the Department of Neurosciences, and the Department of Obstetrics and Gynecology.

ACCOMPLISHMENTS AND HIGHLIGHTS
Clinical Service

- Development of a multidisciplinary transgender pediatric and adolescent gynecology clinic at the South Health Campus is ongoing.
- Drs. Miller Smith and Kevin Robertson (Pediatric Oral Maxillofacial Surgery) work closely in the multidisciplinary Cleft, Complex Midfacial, Dental Multidisciplinary Specialist and Temporomandibular-Rheumatology clinics at the ACH.

Education

- Pediatric Urology received a Gold Medal Teaching Award and an Honour Roll Teaching Award.
- Dr. Frankie Fraulin was promoted to Clinical Professor. He also received a Gold Star Teaching Award for Clerkship Teaching. He is also a Royal College Plastic Surgery Examiners.
- Dr. Rob Harrop sits on the Plastic Surgery Written

- and Oral Examination Boards for the Royal College.
- Dr. Philippa Brain (Pediatric and Adolescent Gynecology) received a postgraduate certificate in Patient Safety from Oxford University, UK, during her July 2021-July 2022 sabbatical.
- Dr. Natalie Yanchar (Pediatric General Surgery) continues as the Lead for the Royal College of Physicians and Surgeons of Canada sponsored TRIK (Trauma Resuscitation in Kids) Course.
- Dr. Tito Daodu (Pediatric General Surgery) is the PGME Anti-racism Curriculum Co-lead and the Structural Competencies Co-lead for the UME Reimagining Medical Education initiative (RiME).

Research

- Pediatric Urology presented abstracts at the Canadian Urology Association and Alberta Urology Association.
- Pediatric and Adolescent Gynecology submitted/published ten manuscripts.
- Drs. Fraulin and Harrop received a Calgary Vice President Research (VPR) catalyst grant and a Calgary Research Fund Grant for their Calgary Kids’ Hand Rule Project.
- Dr. Natalie Yanchar (Pediatric General Surgery) was one of three recipients of a Canadian Institute for Health Research (CIHR) grant focused on improving the quality of pediatric trauma care in Canada.
- Dr. Tito Daodu (Pediatric General Surgery) received four grants this year. This included the Grand Challenges in Child Health and Wellness Seedling award from the ACHRI for her study on improving surgery access for rural Indigenous children in Southern Alberta. She received a Taylor Institute Teaching and Learning Grant and a VPR Catalyst Grant for her work reforming the



Dr. Paul Beaudry
Section Chief of Pediatric Surgery

- pre-clerkship curriculum. She also received the University of Calgary Department of Pediatrics Grant for exploring experiences of racism by BIPOC patients and healthcare providers.
- Dr. Mary Brindle was very productive in 2021 with 18 publications and 8 grants. These included grants from the MacNeill Surgery Research Chair, the Stavros Niarchos Foundation, CIHR, Maternal Newborn Child & Youth Strategic Clinical Network, and the Extracorporeal Life Support Organization (ELSO). She also received a CIHR grant and Calgary Center for Clinical Research grant to redevelop a point-of-care tool to improve surgical safety.

Medical Leadership and Administration

- The Site section leads include Dr. Dave Parsons for Pediatric Orthopedics, Dr. Ryan Frank for Pediatric Plastic Surgery, Dr. James Brookes for Pediatric Otolaryngology, Dr. Andy Crichton for Pediatric Ophthalmology, Dr. Bryce Weber for Pediatric Urology, Dr. Steve Lopushinsky for Pediatric General Surgery, Dr. Kari Badwi for Pediatric Dentistry (taking over from Dr. Marie-Claude Cholette, Dr. Miller Smith for Pediatric Oral maxillofacial surger, Dr. Walter Hader for Pediatric Neurosurger and Dr. Phillippa Brain for Pediatric and Adolescent Gynecology.
- Dr. Mary Brindle is the Director, Safe Surgery/

6,061

elective surgeries

2,950

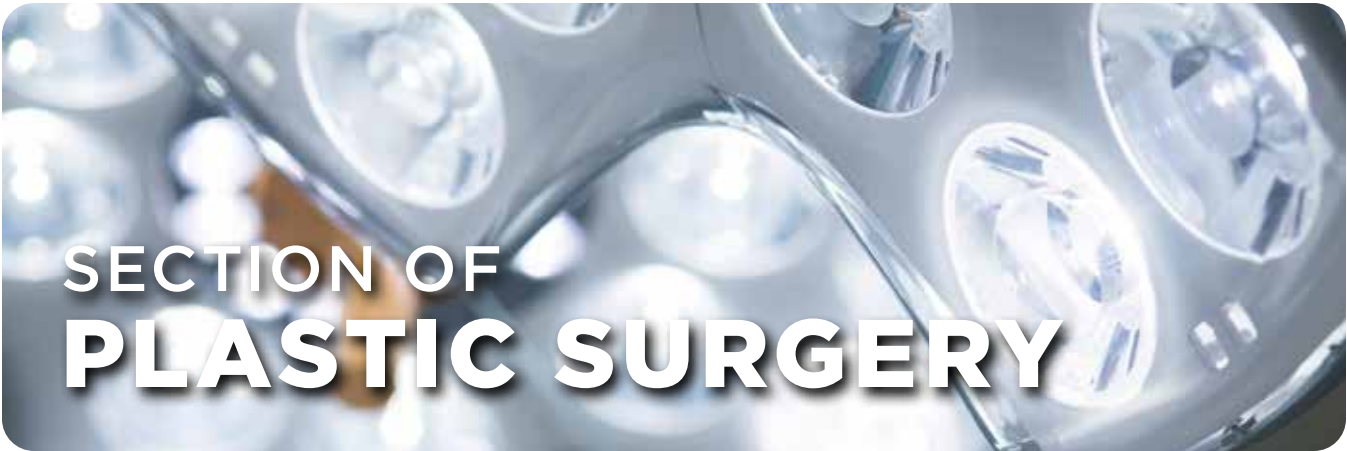
emergency/urgent surgeries

Safe Systems Program Ariadne Labs; Scientific Director, Surgery Strategic Care Network; and Director, EQUIS Research Platform.

- Dr. Andrea Lo is the Program Director, Pediatric General Surgery and the Director, Surgical Foundations Boot Camp.
- Dr. Steven Lopushinsky was appointed the Director of the Office of Surgical Education.
- Dr. Miller Smith was appointed QI and Safety Lead for OMFS and the NSQIP Lead for the Peter Lougheed Centre.
- Dr. Frankie Fraulin is the Deputy Department Head, Governance and Physician Services. He also holds the positions of Secretary Treasurer and Educational Foundation Director for the Canadian Society of Plastic Surgeons.
- Dr. Rob Harrop is the Section Chief of Plastic surgery; he is also a member of the Advisory Council for Plastic and Maxillofacial Surgery for the American College of Surgeons.

CHALLENGES AND WORKFORCE PLANNING

- OR access limitations imposed due to the pandemic has been the main challenge for the last year. Fortunately, we have an exceptional leadership team and staff that have ensured safe and timely urgent OR access. The Pediatric Access Target for Surgery (P-CATS) system, used at all children's hospitals in Canada, has allowed us to effectively prioritize elective surgeries, accelerate our pandemic recovery, and more effectively allocate OR resources. Despite an increased waitlist, our P-CATS out of window proportion is approximately 30%, among the best in the country.
- No significant increases to workforce planning are planned, notwithstanding the need to recruit to support ASI targets should they increase.
- Dr. Elaine Joughin has retired after a 25-year career as a pediatric orthopedic surgeon at the ACH. We wish her all the best in her retirement.



The Section of Plastic Surgery consists of 34 active plastic surgeons who provide care at the four adult acute care sites and the Alberta Children’s Hospital. Our section focuses on the care and surgical restoration of structures of the body that are affected, aesthetically or functionally, by birth defects, tumours, injuries, diseases, or the aging process. We operate on many anatomic regions of the body and collaborate with other specialties to solve a large variety of surgical problems.

Our section has a five-year plastic surgery residency training program under the direction of the Program Director, Dr. Duncan Nickerson, which accepts two residents each year. After completing their residency, almost all graduating residents complete further fellowship training in various plastic surgery subspecialties.

- We also offer three plastic surgery subspecialty fellowships:
- Oncologic reconstruction – Program Director: Dr. Claire Temple-Oberle
 - Microsurgical reconstruction – Program Director: Dr. Christiaan Schrag
 - Hand surgery – Program Director: Dr. Justin Yeung

ACCOMPLISHMENTS AND HIGHLIGHTS
Education

- The D.C Birdsell Plastic Surgery Resident Research Day and Visiting Professorship was held on November 19, 2021, with Dr. Erin Brown from the University of British Columbia serving as the visiting professor.

Clinical Service

- We have successfully developed and implemented several clinical care pathways aimed at standardizing care and improving outcomes for patients undergoing surgery for:
 - Breast reconstruction (ERAS)
 - Cleft lip and palate
 - Alveolar bone grafting
 - Head and neck reconstruction following cancer surgery (ERAS)

Members

- Dr. Aaron Knox serves as the Chair of the Clinical Competency Committee for the Plastic Surgery Resident Training Program.
- Dr. Jennifer Matthews coordinates the Calgary Chapter of Breast Reconstruction Awareness Day. The day offers patients and family members the opportunity to hear formal presentations on breast reconstruction in addition to meeting with women who have been through breast reconstruction, partners of reconstruction patients, and surgeons performing reconstruction.
- Dr. Don McPhalen serves as Co-Chair of the Well Physician Course for UGME.
- Dr. Jennifer Matthews continues to coordinate the annual microsurgical skills simulation course for plastic surgery and otolaryngology residents.
- Dr. Jennifer Matthews serves as the Patient Concerns Coordinator for the Department of Surgery.
- Dr. Frankie Fraulin continues as Deputy Department Head – Governance and Physician Services for the Department of Surgery. He was promoted to Clinical Professor in 2021, and he also received a Gold Star Teaching award for clerkship teaching.
- Dr. Fraulin, along with collaborators Dr. Rob Harrop, Dr. Paul Ronksley, Dr. Rebecca Hartley, Dr. Maolisa Donald, Dr. Ann-Sophie Lafreniere, and Altay Baykan, received the 2021 Cumming



Dr. Rob Harrop
Section Chief of Plastic Surgery

- School of Medicine Clinical Research Award for their project: Development of a Pediatric Hand Fracture Care Pathway – Identification of Facilitators and Barriers to Implementation. They were also successful in obtaining a VPR Catalyst Grant for their Calgary Kid’s Rule Project.
- Dr. Kate Elzinga serves as the Quality Improvement and Safety Lead for the Section of Plastic Surgery, studying outcomes from free flap breast reconstruction. She is also serving as Interim Director of the Office of Surgical Quality in the Department of Surgery.
 - Dr. Fraulin and Dr. Rob Harrop continue as Royal College examiners in Plastic Surgery.

CHALLENGES AND WORKFORCE PLANNING

- The Covid-19 pandemic has impacted the delivery of surgical care in the Section of Plastic Surgery, with a reduction in the number of cases done in the main OR across the Calgary Zone. We saw 4,500 cases completed in 2019, 3,889 in 2020, and 3,383 in 2021.
- Planned surgical missions abroad by section members were cancelled in 2020 and 2021 due to the Covid-19 pandemic.
- The Section of Plastic Surgery was tasked in 2019 by the Department of Surgery and Alberta Health Services to participate in the development

3,383 surgical cases in the main operating room (all sites)

9,000 surgical cases in the minor surgery clinics (all acute care sites)

26 peer-reviewed publications

- of a multi-disciplinary Gender Affirmation Surgery Program in Calgary, with the integration of both adolescents and adults. Government support for this initiative has been halted because of competing priorities, and its future is unclear.
- Increasing the number of academic plastic surgery faculty remains a priority for the Section of Plastic Surgery. Current efforts to achieve this goal aim to explore novel funding models for such surgeons.
 - Providing resident education in the area of aesthetic plastic surgery is required by the Royal College of Physicians and Surgeons but remains challenging for a variety of reasons. We continue to explore innovative ways to provide this training.
 - Dr. Alan Lin retired from active practice after 25 years of service at the Peter Lougheed Centre (PLC) and to the Calgary surgical community. Through his years of leadership at the PLC, Dr. Lin was instrumental in developing a strong plastic surgery presence at the hospital. Thank you, Alan!
 - Dr. Alex Hatchell was recruited to the PLC in the fall of 2021. Dr. Hatchell received her plastic surgery training at McMaster University and then completed a microsurgery fellowship at the University of Calgary. Prior to returning to Calgary, she was on faculty at Queen’s University in Kingston, Ontario.



SECTION OF
**PODIATRIC
SURGERY**

The Section of Podiatric Surgery includes 11 surgeons who deliver surgery to all five hospitals in the Calgary Zone, with section members treating disorders of the foot and ankle.

Prevention and advanced wound care of foot ulcerations is a large part of the practice, in addition to providing patient education around toolsets to decrease the amount of pressure on the foot when standing or walking. The section also specializes in limb preservation surgery, ranging from draining a foot abscess, to major debridement of nonviable tissue, to performing amputations.

Due to the complexity and multifactorial health conditions of diabetic foot ulcerations, we work closely with the Section of Vascular Surgery to ensure optimized blood flow and enhanced healing. We also consult with other specialties as required, including infectious disease, general internal medicine, endocrinology, orthopedic surgery, and plastic surgery.

ACCOMPLISHMENTS AND HIGHLIGHTS

The Zivot Limb Preservation Clinic at the Peter Lougheed Centre continues to focus on bringing the diabetic foot and its complications to the forefront of healthcare in Alberta. With the assistance of a very generous donation, we have purchased new equipment that will help keep our institute as a centre of excellence in Western Canada. The clinic had over 6,500 patient visits in 2021. Section members also provided call coverage for the five acute



*Francois Harton
Section Chief of Podiatric Surgery*

care facilities in Calgary, urgent care facilities, RAAPID, E-referrals, and Specialist Link for the Calgary Zone.

Last year, one of our members, Dr. Karim Manji, was selected as one of Calgary's Top 40 Under 40 by Avenue Magazine. This is a prestigious award given to a select few professionals under 40 years old.

Despite the impact of the COVID-19 pandemic, all educational activities continued throughout 2021, though some activities did move to a virtual format. Each year, our section presents to the family medicine residents on pathologies involving the foot and pathways for referrals. We also present to the Vascular Surgery residents on diabetic limb-related complications and surgical reconstruction options. The Vascular Surgery residents also spend two blocks with our section. We have also become more involved with the Cumming School of Medicine. Third-year students can now spend a one-week clerkship rotation in the Zivot Limb Preservation Clinic as one of their options.

For this upcoming year, we have accepted the Vascular Surgery Fellow from the University of Toronto and the University of Ottawa for a rotation to learn surgical techniques in limb preservation.

11

surgeons in the
Calgary Zone

6,500

visits to the Zivot Limb
Preservation Clinic

2,200

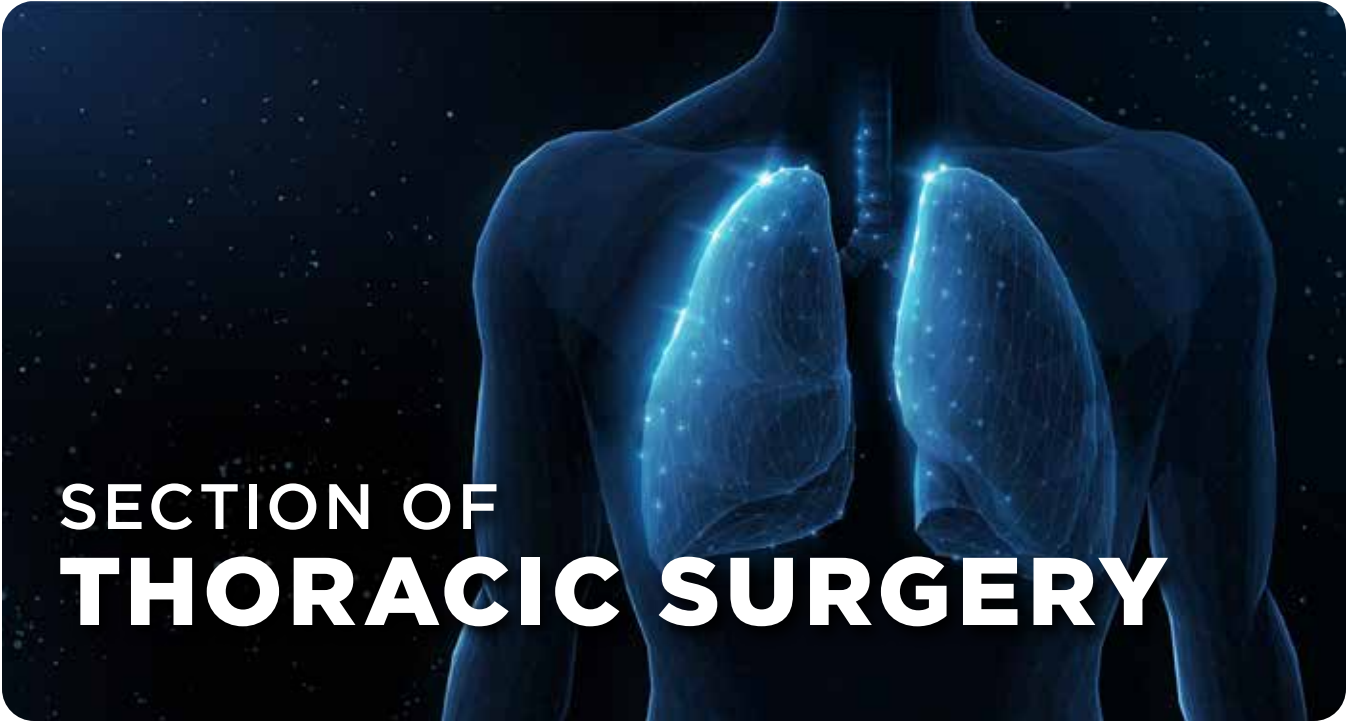
cases at the Peter
Lougheed Centre

850

cases at Chartered
Surgical Facilities

CHALLENGES AND WORKFORCE PLANNING

Due to the COVID-19 pandemic, there were a number of challenges at the Minor Surgery Clinic at the Peter Lougheed Centre. These challenges included decreased patient numbers in the Zivot Limb Preservation clinic, altered ability to see and care for our patients in the clinic and the wards, and decreased access to the operating room for our patients. Looking forward, we hope to start a fellowship program in the coming year.



The Section of Thoracic Surgery delivers surgery at the Foothills Medical Centre and serves all of Southern Alberta. Our six surgeons provide all aspects of thoracic surgery care, except lung transplantation. We are affiliated with the Tom Baker Cancer Centre and provide multidisciplinary care for lung and esophageal malignancies. Our section provides high-quality surgical care to the patients of Southern Alberta.

ACCOMPLISHMENTS AND HIGHLIGHTS
Clinical Service

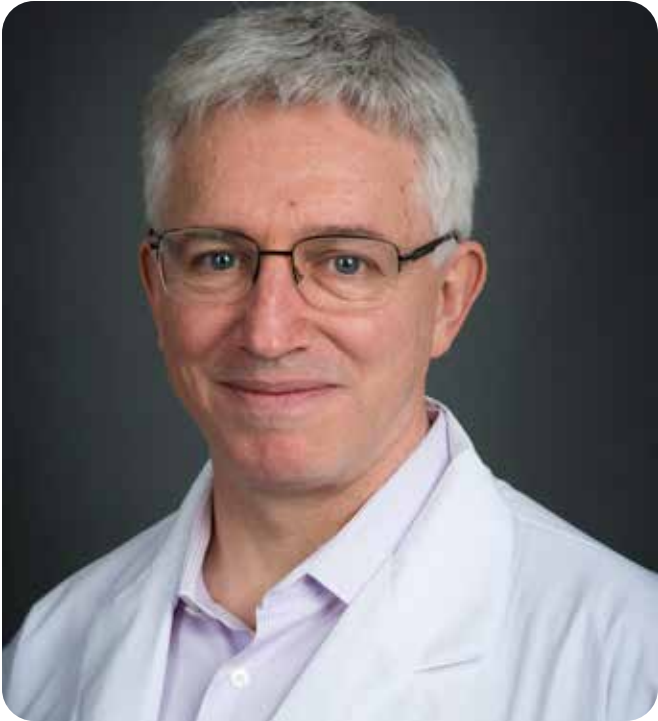
- The section continued work on optimizing opioid prescribing after thoracic surgery. With the assistance of the Physician Learning Project, this collaborative work achieved a standard approach to opioid management. Analyses of the program are ongoing, but the

results suggest we are effectively meeting national standards without loss of patient satisfaction.

- M&M rounds continue to evolve with even more interactive performance analyses, not just “Run and Control charts.” The new processes highlight areas of concern and improvements in patient care. This has brought a terrific new perspective expanding the group’s experience with these important QI analytic tools.
- The group worked collaboratively to introduce a new post lung resection management protocol, with the goal of consistent clinical care and reduced length of stay. We have since taken on the more daunting project of esophageal resections. Collaborative work with many stakeholders is underway to enhance the postoperative care for these challenging surgeries.

Education

- It was a successful year on the educational front despite the many challenges posed by COVID-19. The section continues all formal instruction, rounds, and seminars via videoconference.
- Dr. Evan Barber has completed the first year and a half of the Thoracic Surgery Residency Program, and we look forward to his successful completion in the summer of 2022.
- Dr. Shawn Brophy has successfully matched to the Thoracic Surgery Residency Program and will begin in 2022.



Dr. Sean McFadden
Section Chief of Thoracic Surgery

- Dr. Colin Schieman remains dedicated to education. He continues as the Thoracic Surgery Residency Program Director, and he received the University of Calgary’s Surgery Clerkship Teaching Award. After eight years of service, he stepped down as the Co-Chair of the National Thoracic Surgery Residency Interventional Course (Bootcamp).
- Dr. Janet Edwards is the Undergraduate Medical Education Lead for the section. In this role, she sits on the Surgery Undergraduate Education Committee. She also participates in the new Career Coaching Program with medical students.
- Dr. Gelfand was awarded the Honour Roll Award for undergraduate surgery clerkship. He also serves on the Undergraduate Surgery Clerkship Committee.

Research

- Dr. Colin Schieman remains a co-investigator for the CIHR funded Randomized Controlled Trial to determine whether administration of colchicine compared with placebo reduces the incidence of perioperative atrial fibrillation within 14 days after major thoracic surgery. Conen D, et al. Ongoing Accrual to COP-AF trial. Multicenter Randomized Control Trial.

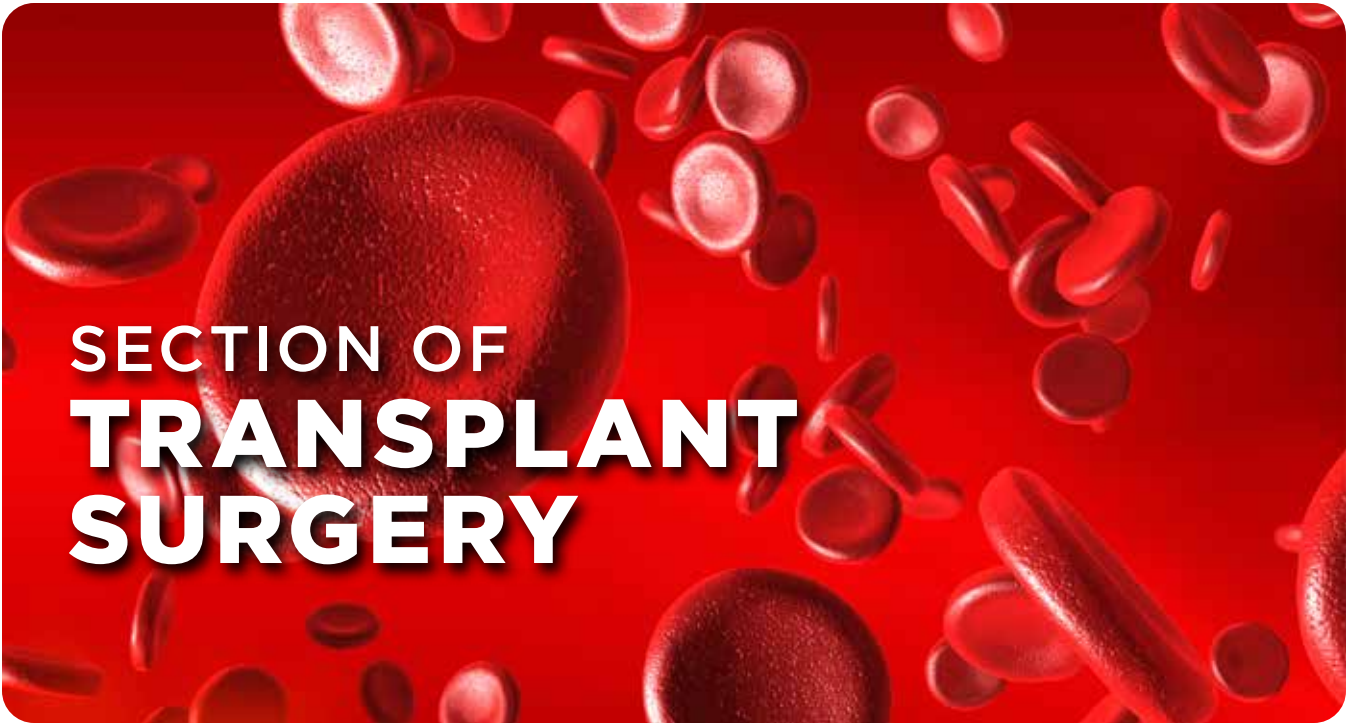
6 *surgeons in the Calgary Zone*

Medical Leadership and Administration

- Dr. Colin Schieman remains the Lead of the CLEAR Score Process, which tabulates clinical, leadership, education, administration, and research activities. It is undergoing continued adoption and improvement by the Department of Surgery (DoS) as a way to measure the activities of its members.
- Preparations for the 2022 External Review are ongoing and active for next September.
- Dr. Edwards is on several national and international committees, including the General Thoracic Workforce with the Society of Thoracic Surgeons (STS) and the Western Thoracic Surgical Association (WTSA), Early Lung Cancer Committee for the International Association for the Study of Lung Cancer (IASLC), and the Research Committee for the Canadian Association of Thoracic Surgeons (CATS).
- Dr. Sean Grondin successfully completed his presidency of the Society of Thoracic Surgeons. His strong leadership brought the organization through a tumultuous year of COVID-19 waves and restrictions and steadied the waters for a large, diverse group of surgeons. Under his presidential leadership, the 2022 Society of Thoracic Surgeons Annual Meeting was held virtually and was a great success, with over 3500 participants worldwide.
- Dr. Andy Graham continues as the Director of the Office of Surgical Quality. Despite being on sabbatical from his clinical practice, he has continued to work diligently to keep quality at the forefront of the department’s agenda.

CHALLENGES AND WORKFORCE PLANNING

- The main challenge is managing the backlog of patients seeking medical attention for their thoracic malignancies. This has put a lot of strain on the benign conditions waitlist. Strategies to manage this waitlist are ongoing.
- Acute care coverage has become a significant issue, and we are working with the DoS to find collaborative solutions.



The Section of Transplant Surgery provides medical and surgical care for pediatric and adult patients of the Southern Alberta Renal Program. The program delivers surgery to five hospitals in the Calgary area, including the Alberta Children’s Hospital, Foothills Medical Centre, Peter Lougheed Centre, Rockyview General Hospital, and South Health Campus. Our three surgeons provide all aspects of kidney and pancreas transplantation as well as vascular access procedures.

ACCOMPLISHMENTS AND HIGHLIGHTS
Clinical Service

The Section of Transplant Surgery, in collaboration with Canadian Blood Services and the National Kidney Paired Donation Program, was able to perform 105 kidney transplants in 2021. This is the highest number of transplants in a year that we have performed, surpassing our previous annual high of 88 in 2019. Given the challenges and countless pivots over the

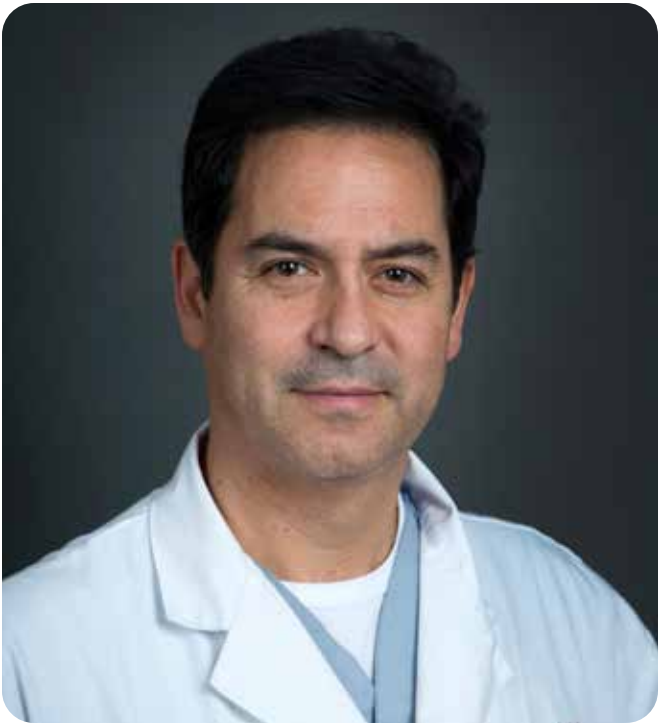
last year related to COVID, this is phenomenal activity. The Transplant Unit did suffer one COVID outbreak requiring the unit to quarantine. Despite this challenge, transplant activity continued to be provided at a safe level.

COVID-19 has also impacted donation and transplantation across all of Canada. New measures were taken to minimize exposure to and transmission of the virus and to protect donors and transplant recipients. Due to restrictions in scheduling elective surgeries, the living donor program started the process of organ shipping, a very complex medical and logistical process, to assure successful transplantation. For the first time in the program’s history, organs from living donors were shipped and received to and from various centres in Canada.

The Section of Transplant Surgery members transitioned from a fee-for-service model to a clinical alternative relationship plan (ARP) on January 1, 2022.

Education

The University of Calgary Transplant Surgery Fellowship Program accepts one fellow for our two-year transplant fellowship training program. Dr. Neal Austin successfully completed his fellowship training



Dr. Mauricio Monroy-Cuadros
Section Chief of Transplant Surgery

in July 2021, and Dr. Fatma Al Hinai, a University of Calgary surgery graduate, started her fellowship program, which will be completed in 2023.

The program also provides training and education for nephrology fellows and general surgery, vascular surgery, and internal medicine residents in the areas of transplant surgery and vascular access. Education also includes clinical rounds and journal clubs.

Research

Dr. Monroy-Cuadros remains a co-investigator for a Canadian Institutes of Health Research (CIHR) multinational and multicentre clinical trial funded to study the long-term effects of becoming a living kidney donor.

Dr. Serdar Yilmaz also remains a co-investigator for a CHIR randomized control trial comparing catheters vs fistulae in elderly patients starting dialysis and in the transition to kidney allograft failure. They are characterizing the risk and identifying opportunities for intervention.

Medical Leadership

Dr. Anastasio Salazar completed ten years of service as the Section Chief of Transplant Surgery. We thank

107

kidney and pancreas transplants

400

vascular access surgeries

1,055

transplant and vascular access clinic visits

Dr. Salazar for his collaborative efforts, hard work, and leadership to improve the program during his term. Dr. Mauricio Monroy-Cuadros has been appointed the new Section Chief of Transplant Surgery.

Dr. Serdar Yilmaz is on a national committee with the Canadian Blood Services Living Donor Advisory Committee. He is also the acting Medical Director for the Southern Alberta Living Donor Program.

Dr. Mauricio Monroy-Cuadros is on several provincial and national committees, including the Canadian Blood Services Kidney Transplant Advisory Committee. He also continues his work with the Licentiate of the Medical Council of Canada on the National Assessment Collaboration – Objective Structured Clinical Examinations committee for the Alberta International Medical Graduates Program.

CHALLENGES AND WORKFORCE PLANNING

Our surgeons are dedicated to maintaining the high-quality patient care provided in our community and improving patient outcomes while ensuring the sustainability of the health system. The current shortage of staff will constrain our ability to safely meet the needs of the population this program is mandated to serve. The need to expand our pool of surgeons is important to ensure a sustainable call-coverage model and prevent burnout. The most significant limitation has been the availability of surgical resources, which limits our ability to recruit new colleagues. The intention of the clinical ARP model is to hire new surgeons and maintain the sustainability of the program.



The Section of Urology is based at the Rockyview General Hospital at the Southern Alberta Institute of Urology (SAIU). The team of 13 adult urologists and 3 pediatric urologists serves patients at all acute-care sites in Calgary, providing care to individuals with a variety of urological conditions.

The section offers specialized programs, including prostate cancer rapid-access clinics, vesia [Alberta Bladder Centre], and the Men’s Health Program.

Our team values contributions to teaching and research, and our members provide clerkship teaching and supervision. The section runs three fellowship programs: pediatric urology, reconstructive and functional urology, and urologic oncology. Members are involved in a variety of clinical trials, basic science research, and quality improvement projects.



Dr. Eric Hyndman
Section Chief of Urology

4,063

urology cases completed
(66% In window)

1,538

urology cancer cases
completed (60% In window)

30

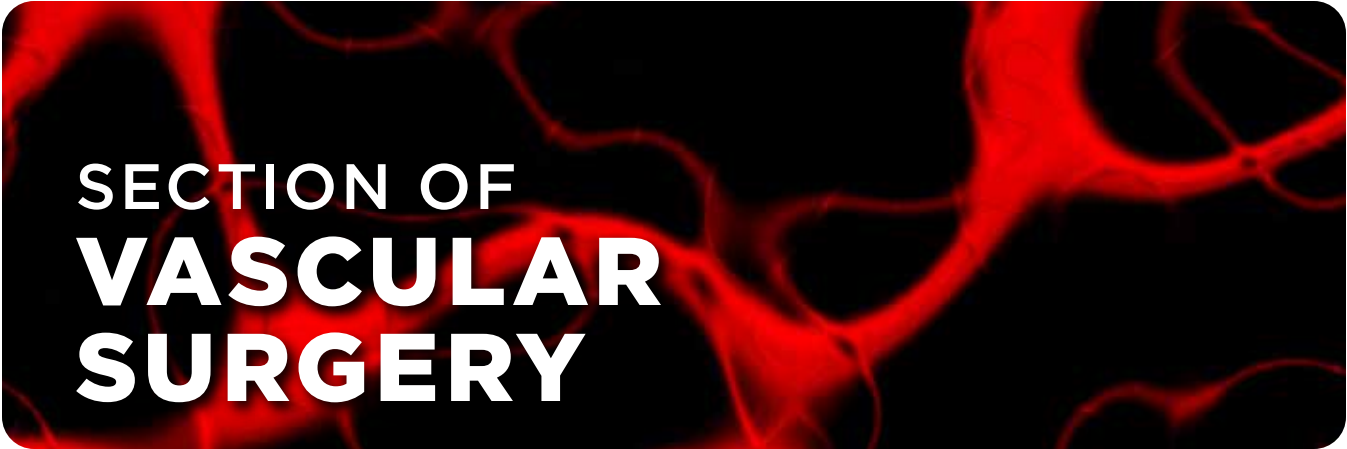
peer-reviewed
publications

ACCOMPLISHMENTS AND HIGHLIGHTS

- Dr. Eric Hyndman took over as the Section Chief of Urology from Dr. Kevin Carlson.
- Members contributed to the Alberta Surgical Initiative Working Group for Urology. In particular, Dr. Kevin Carlson took on the role of Calgary Urology Lead of the Alberta Surgical Initiative.
- We continued to expand our research program, with a focus on translational research and health services research.
- Dr. Kam Kaler contributed as the Calgary Zone Urology Quality Improvement and Safety lead for the provincial opioid project. He also accepted the position of RGH Surgical Site Lead for NSQIP.
- We began the development of the Kawakami Pre-habilitation clinic at the Prostate Cancer Centre, with the goal of improving clinical outcomes through patient pre-surgical exercise and diet.
- Urology Central Intake expanded with the addition of a triage nurse.
- Drs. Carolina Fermin-Risso, Geoffrey Gotto, Kam Kaler, Jay Lee, and Bryce Weber received 2021 Clerkship Teaching Awards.
- The section managed the highs and lows of the pandemic while continuing to provide excellent patient care.

CHALLENGES AND WORKFORCE PLANNING

- Like all surgical sections, we were required to postpone surgeries due to staffing and bed shortages. In total, we postponed 479 surgeries.
- The need for additional clinical, non-physician support is ongoing. Our physician assistant (PA) resigned in the spring, and one of our nurse practitioners will be away on maternity leave in 2022. The PA position will be backfilled as of January 2022, and we hope to recruit a temporary nurse practitioner.
- Increased effort and engagement are required to prepare for Connect Care.
- Our members will continue to work on provincial and Calgary Zone initiatives related to ASI.
- Our valued friend and colleague, Dr. Jun Kawakami, passed away in August, and our deepest sympathy goes out to his family, friends, colleagues, and patients. The Kawakami Pre-habilitation Clinic, mentioned above, is named in his honour.
- The section will recruit a new urologist in early 2022.



The Section of Vascular Surgery has eight active members delivering vascular surgery care based at the Peter Lougheed Centre (PLC). The section also provides emergency and urgent vascular surgery services at the Foothills Medical Centre (FMC), South Health Campus (SHC), Rockyview General Hospital (RGH), and Alberta Children's Hospital (ACH). Ambulatory venous surgery is performed at the Canmore General Hospital.

ACCOMPLISHMENTS AND HIGHLIGHTS
Clinical Services

- As expected, we have experienced a drop in clinical volumes during the pandemic.
- The Vascular Surgery Ambulatory Clinic saw 8,000 patients, with ~ 40% being virtual appointments.
- 300 minor vascular procedures were performed, including hemodialysis access (AV fistulae) and varicose vein surgery.
- 500 major procedures were performed, including aortic and carotid surgery as well as lower extremity limb salvage bypasses.
- Vascular surgery continues to participate in the Specialist Link Program, now consulting on > 400 patients per year.
- 30 combined procedures for complex oncologic resections were performed, with surgical oncology, urology, head and neck oncology, and spine surgery being the most frequent.
- 200 emergency vascular procedures performed.

- 30 vascular traumas.
- 20 cases to treat iatrogenic injuries to the vascular structures in support of other surgical sub-specialties.
- The multi-disciplinary Complex Aortic Disease Clinic has successfully seen approximately 400 patients per year at the SHC clinic. 50 patients have been treated.
- The Section of Vascular Surgery recorded the highest CLEAR score in the Department of Surgery (DoS) with 76 points. This included the highest scores in leadership and research and the second-highest scores in education and citizenship.

Education

- The Vascular Surgery Residency Training Program continues to thrive. The program received 31 applications from around the country for our single residency spot.
- The fellowship program graduated its first advanced aortic surgery fellow, Dr. Annie Boisvert, who has returned to begin practice in Quebec. This year we will continue the program with a new fellow starting July 1, 2022.
- Vascular surgery continues to train off-service residents from general surgery, plastic surgery, and cardiac surgery.
- The section trains 30-40 clerks per year and continues to receive requests for visiting clerkships, observerships, and MED 440 students.
- The clerkship continues to receive didactic lectures as part of their clerkship curriculum.
- Dr. Jeff Clark is the Lead for Vascular Surgery Clerkship.
- Dr. Rommens is the Program Director for the Residency Training Program.
- Dr. Rommens and Dr. Samis are co-directors of the Fellowship Program.
- Numerous dean's letters and teaching awards were bestowed on section members.



Dr. Gregory Samis
Section Chief of Vascular Surgery

Research

- The section continues to be very active in clinical research, with 18 active trials (4 industry-sponsored and 14 investigator-initiated trials, most of which have resident participation). The success can be largely attributed to Dr. RD Moore, Director of Resident Research, who has a very productive partnership with Bio-Medical Engineering at UCalgary.
- Ongoing participation in FDA-sponsored clinical device trials includes Drs. Petrasek, Moore, Nutley, Cantle, Clark, Rommens, and Samis.
- Dr. Cantle is an editor for the Journal of Endovascular Trauma Therapy, authored a book chapter in a Trauma Textbook, and published an article on REBOA applications in a peer-reviewed journal.
- Dr. Nutley has authored a book chapter and published four papers in peer-reviewed journals.
- Partnerships with Interventional Radiology, exploring novel technologies, continue to be productive.
- Dr. Moore has published eleven articles in peer-reviewed journals. The most notable was Calgary's Twenty-Year Experience with Endovascular Stenting for Ruptured AAAs in the Journal Of Vascular Surgery.
- Dr. Moore's partnerships with the Haskayne School of Business and Schulich School of Engineering have attracted 8.5 million dollars in Investor Capital (5% goes to UCalgary).

8,000

patients seen by the Vascular Surgery Ambulatory Clinic

300

minor vascular procedures

500

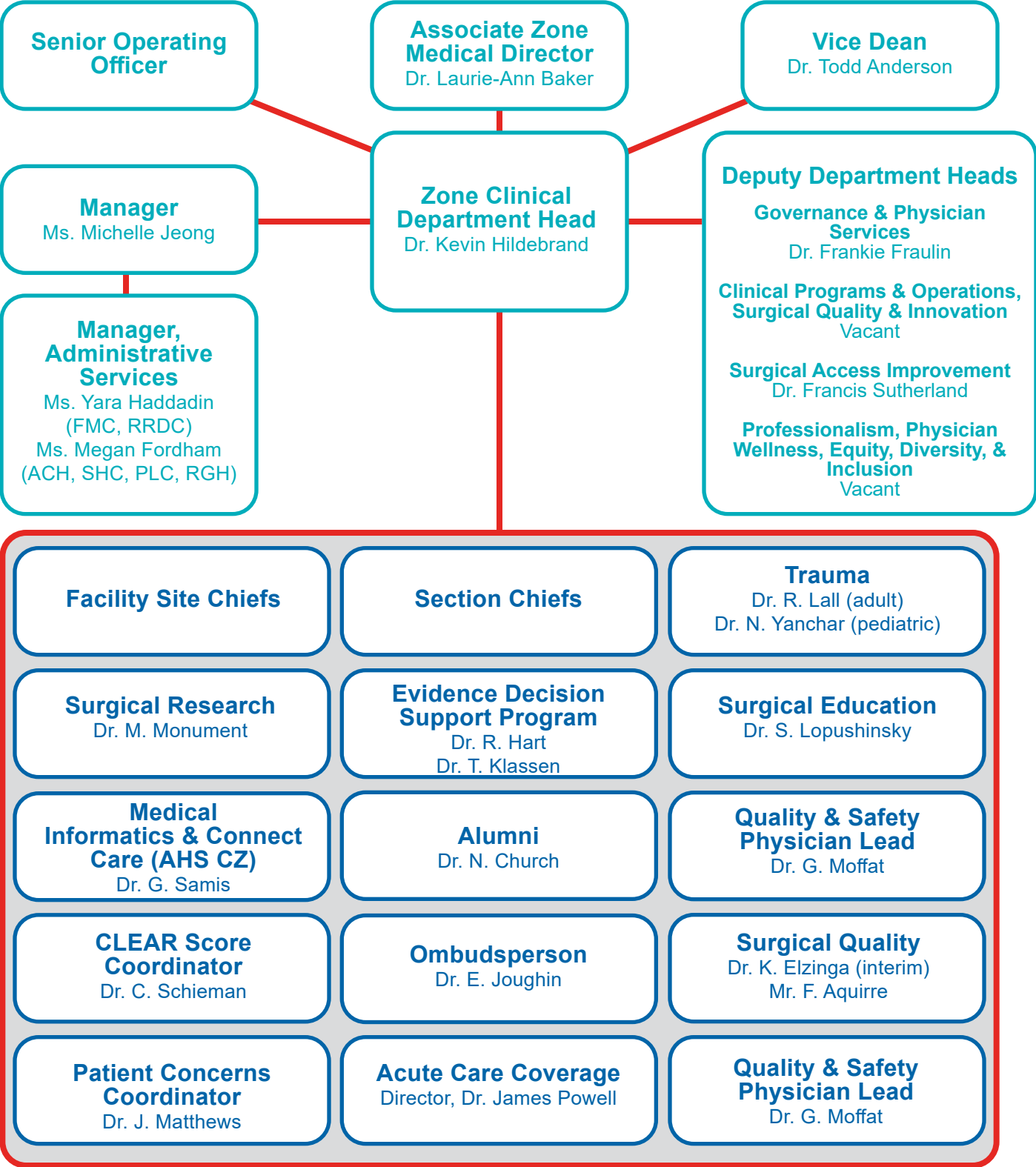
major surgeries

- Data is being gathered in national and international registries for complex diseases of the aorta.

Medical Leadership and Administration

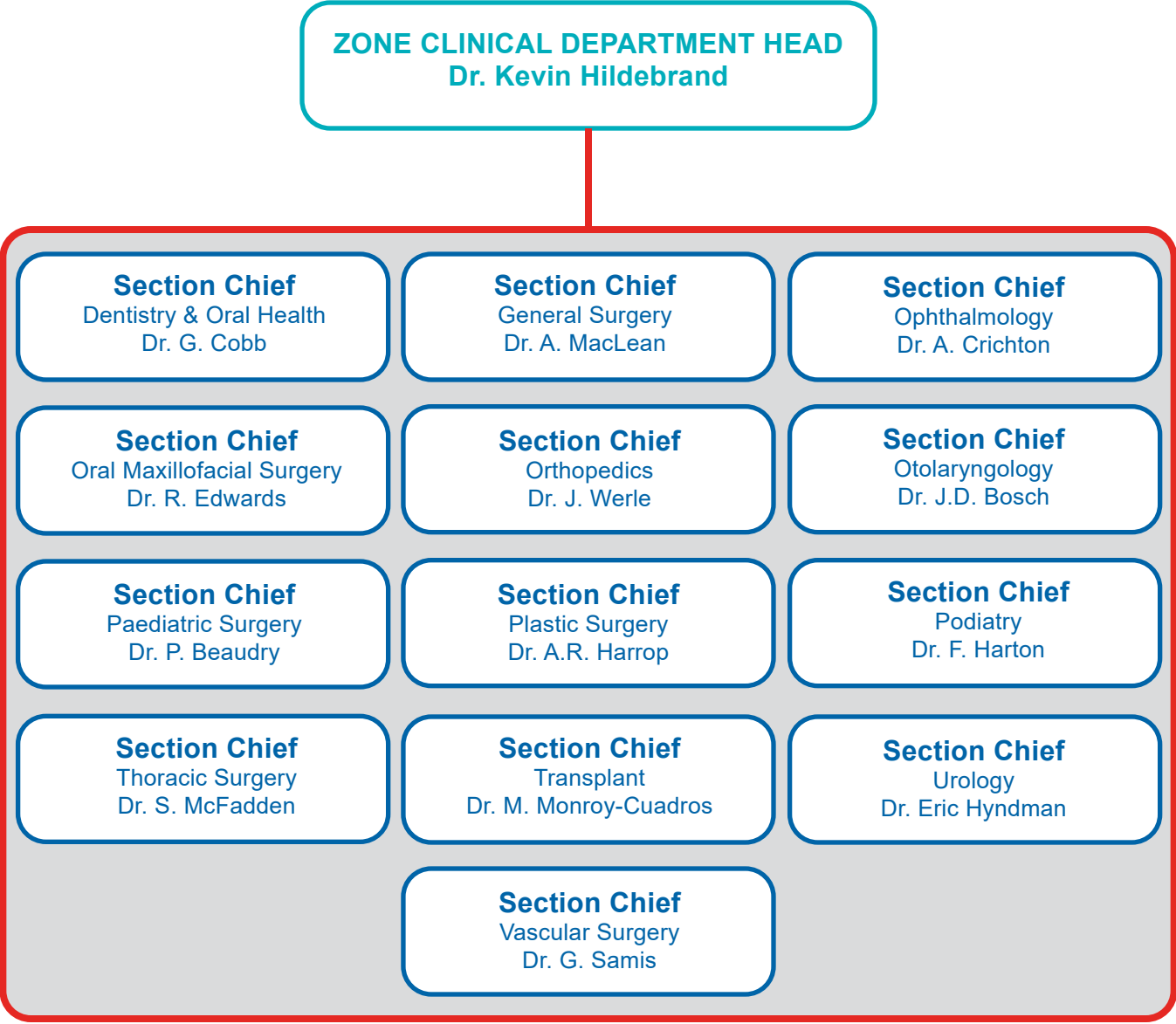
- Section members are active on committees throughout the DoS.
- Dr. Paul Petrasek is the Interim Head of the Surgical Strategic Clinical Networks (SSCN) and currently leads the Central Access and Triage project.
- Drs. Petrasek and Rommens are representatives to the Office of Surgical Quality.
- With Connect Care, Dr. Samis continues as the Medical Informatics Lead for Surgery in the Calgary Zone, and Dr. Rommens is one of three area trainers in surgery.
- Drs. Guimond and Nutley have completed the required extensive screening and training provided by the Canadian Red Cross and are now ready to deploy with the CRC Emergency Response Unit as surgeon delegates in support of the CRC Mobile Response Unit Hospital.
- Dr. Paul Cantle represents the Section of Vascular Surgery on the Transfusion Committee. He also continues as Trauma Education Director, including ATLS. He coordinates the ASSET course, which continues to be extremely popular with surgical trainees.
- Dr. Cantle is an editor for the Journal of Endovascular Trauma Therapy, authored a book chapter in a trauma textbook, and published an article on REBOA applications in a peer-reviewed journal.
- Dr. Petrasek is on the Royal College Vascular Surgery Executive Committee.

LEADERSHIP
DEPARTMENT OF SURGERY



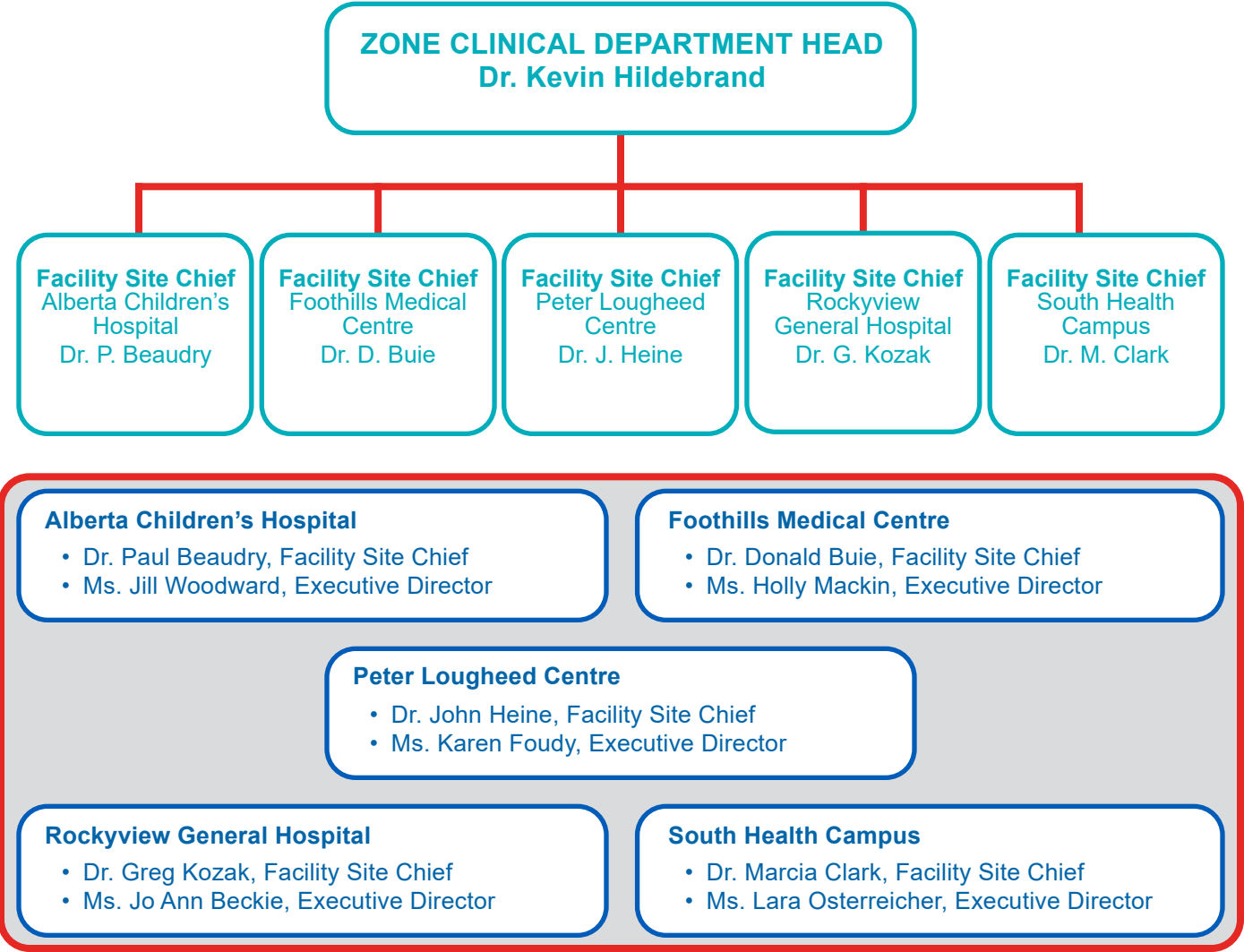
Updated April 25, 2022

SECTION CHIEFS
DEPARTMENT OF SURGERY

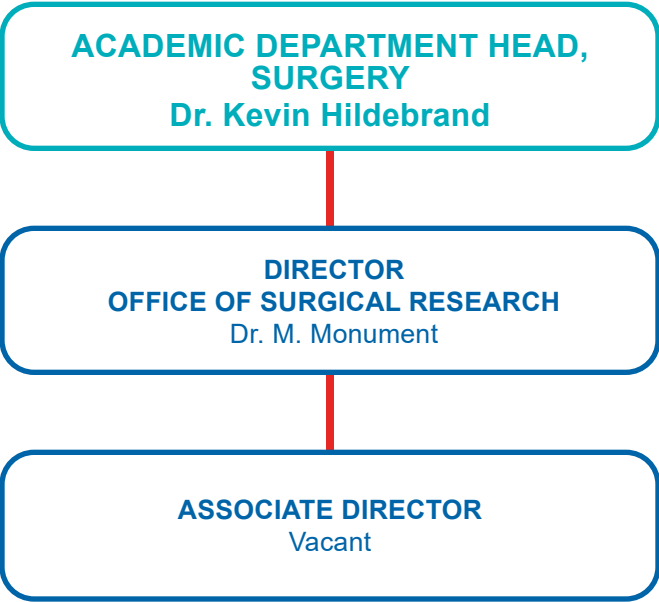


Updated April 25, 2022

SITE LEADERSHIP
DEPARTMENT OF SURGERY



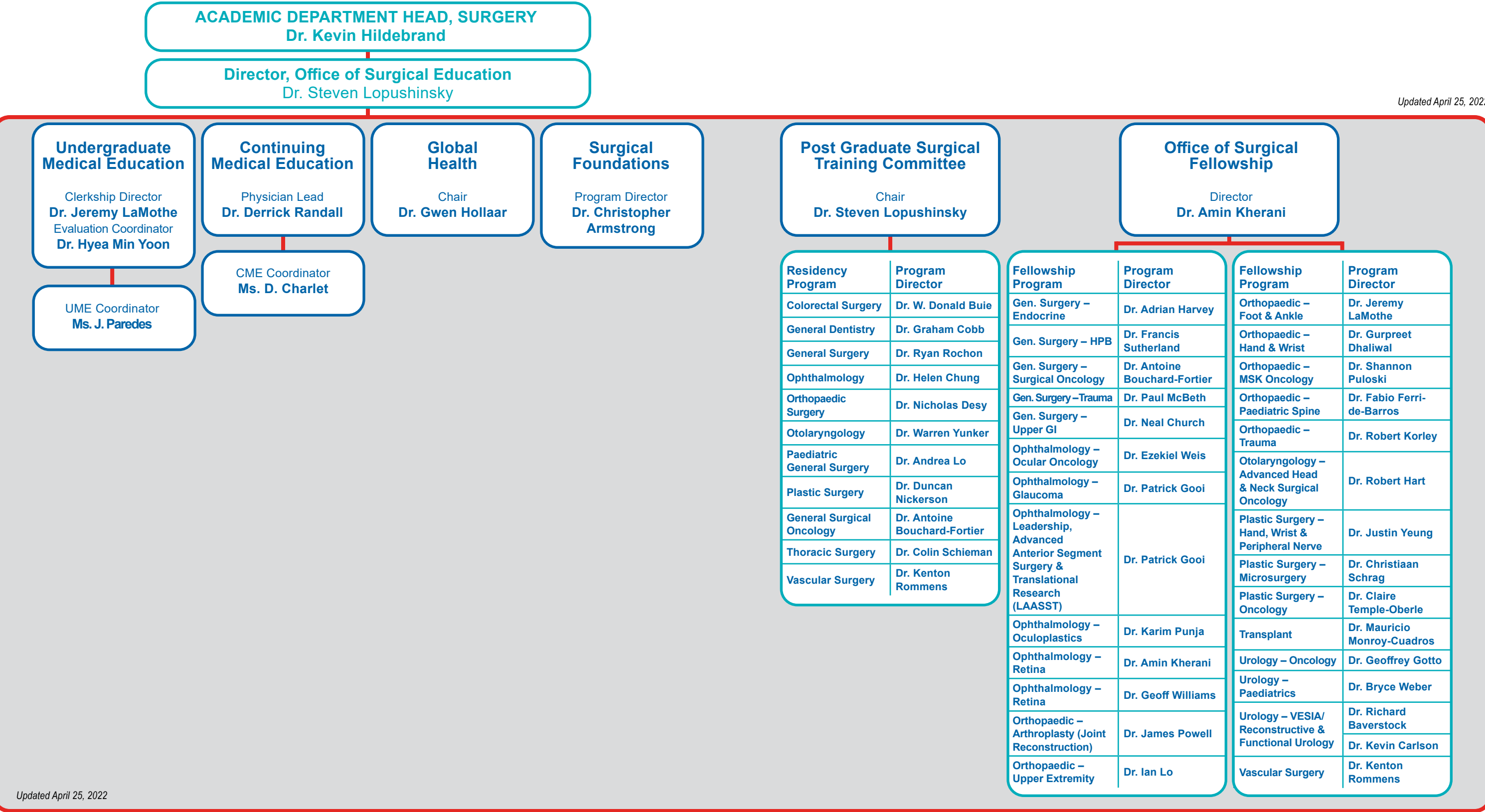
SURGICAL RESEARCH
DEPARTMENT OF SURGERY



Updated April 25, 2022

SURGICAL EDUCATION

DEPARTMENT OF SURGERY



PROMOTIONS

The Department of Surgery is pleased to report the following promotions. Please join us in congratulating our members as we recognize their hard work and achievements.

- Dr. Ahmed Al-Ghoul, Clinical Assistant Professor
- Dr. Frankie Fraulin, Clinical Professor
- Dr. Ian Lo, Clinical Associate Professor
- Dr. Jeremy LaMothe, Clinical Assistant Professor
- Dr. Kenton L. Rommens, Clinical Assistant Professor
- Dr. Renelle J. Daigle, Clinical Assistant Professor
- Dr. Robert S. McClure, Clinical Associate Professor
- Dr. Ryan M. Rochon, Clinical Assistant Professor
- Dr. Shannon Puloski, Clinical Associate Professor
- Dr. Stephanie A. Dotchin, Clinical Associate Professor



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