

DEPARTMENT OF SURGERY

Annual Report 2016-17



**CUMMING SCHOOL
OF MEDICINE**



Department of Surgery
Annual Report 2016- 2017

Acknowledgements

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and Jenna Silverberg

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**CUMMING SCHOOL
OF MEDICINE**



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LETTER FROM THE HEAD OF THE DEPARTMENT OF SURGERY



DR. SEAN GRONDIN

Dear Colleagues and Friends,

The Department of Surgery (DoS) at the Cumming School of Medicine (CSM) and Alberta Health Services (AHS) continues to reach new heights through the launch of several successful programs and inspiring academic activities. As patient well-being remains a top priority, the DoS continues to advocate for improving access to care for all surgical patients in the Calgary Zone (CZ).

We are working collaboratively with the urban and rural sites to maximize operating room usage efficiency and improve the block booking process. We are confident that the recent approved surgical uplift from AHS will significantly diminish the wait list for CZ patients as surgeons will now have the ability to take on more cases.

To monitor and ensure high quality of care within AHS healthcare facilities, AHS is participating in the American College of Surgeons (ACS) National Surgical Quality Improvement Program (NSQIP). To further our quality mandate, the department has also developed the Office

of Surgical Quality (OSQ) led by Dr. Andrew Graham to coordinate quality initiatives within the DoS and CZ.

The AHS Connect Care program is well on its way in terms of organization and implementation. The program will serve as the bridge between information, healthcare teams, patients – and the future. AHS proposes a five-year roll out. Thank you to all the surgeons that have stepped up to assume leadership roles and assist with this vital program.

From an academic perspective, we have completed external reviews for the Office of Surgical Education (OSE) and anticipate a few changes. Dr. Artan Reso continues to lead the OSE and is working closely with Dr. Gwen Hollaar to develop the Centre for Global Surgery. Dr. Jim Powell continues to provide strong leadership in the Office of Surgical Fellowship to further our educational mandate.

In research, extensive changes are occurring in the OSR with a new 1 million dollar investment that we received with the support of the CSM. Dr. Claire Temple-O’Berle plans to unveil the details of the OSR revamp at the annual DoS Research Day in June 2018.

I would like to conclude by recognizing the excellent surgical leadership team that exists within the DoS including the administrative staff, two deputy heads, surgical site leads, executive directors, senior operating officers and medical directors. I would also like to acknowledge the exemplary leadership of our 14 section chiefs and would like to welcome the new section chief representatives in orthopaedic surgery (Dr. Jason Werle) and otolaryngology (Dr. J. Doug Bosch) to the team. Additional changes to the DoS leadership also forthcoming as searches for new section chiefs in vascular surgery, ophthalmology and general surgery are completed.

We hope that you enjoy reading the many successes outlined in this annual report and share our pride in the achievements of the department members whose commitment to providing outstanding service to patients in our community is unparalleled.

Sincerely,
Sean C. Grondin MD MPH FRCSC FACS
Professor and Head Department of Surgery
Cumming School of Medicine, University of Calgary
Calgary Zone Clinical Department Head
Alberta Health Services

85,339 *total surgical
procedures performed
at adult urban sites*

21,131 *surgical procedures
performed at FMC*

10,816 *surgical procedures
performed at ACH*

14,092 *surgical procedures
performed at PLC*

19,367 *surgical procedures
performed at RGH*

10,785 *surgical procedures
performed at SHC*

90%
*operating
room
utilization
across all sites*

LETTER FROM THE DEPUTY HEAD - ACADEMIC



DR. MARY BRINDLE

Dear Colleagues and Friends,

I am enthusiastic about the work we are doing in the department to build an even stronger clinical and academic program including the following key initiatives:

1. Academic development of new faculty. I will meet with new recruits to develop academic objectives in partnership with the department and section leadership. Objectives will focus on concrete deliverables, mentorship development, avenues of support and future academic growth. We will continue to meet with junior faculty to further support the development of clinical, research and educational excellence as well as future leadership growth in our new faculty. This year, we will develop a feedback process to provide leaders and recruits with suggestions and areas for growth and to establish connections between new faculty and mentors.

2. Recognizing and awarding academic excellence within faculty members. I will work with the Office of Surgical Research (OSR), the Office of Surgical Education (OSE) and our continuing medical educational lead to identify

opportunities for support and academic recognition of our staff locally, nationally and internationally. This includes the development of new awards for our faculty.

3. Supporting the development of the OSR and OSE. Dr. Temple-Oberle and Dr. Reso have both provided strong leadership as we have restructured these two offices. I will continue to work with them to develop strong academic mandates. I will also work with the Cumming School of Medicine (CSM), the institutes and the department to support the growth of these two offices. I will also work with our surgeon educators to achieve strong departmental participation in undergraduate and postgraduate education, national leadership in the Competency by Design program, as well as increasing the impact of our department's research at a national level.

4. Working to support AMHSP and other alternative frameworks to support the academic mandate of the department. This includes working with Alberta Health Services (AHS), Alberta Health, and the CSM to identify opportunities for alternative compensation structures that will allow for academic growth. This year, we have worked with provincial, AHS and sectional leadership to move forward with our two first AMHSP programs including the creation of surgery-specific key performance indicators. We will continue to work with the OSR and CSM to identify alternative mechanisms to support academic surgeons and to allow for academic recruitment.

I will also continue to promote the Department of Surgery's academic mission nationally within the Canadian Association of Chairs of Surgical Research.

Sincerely,

Mary Brindle MD MPH

Pediatric General Surgeon, Alberta Children's Hospital
Associate Professor of Surgery and Community Health
Sciences, Deputy Head - Academic Department of Surgery,
University of Calgary Director EQUIS Research Platform

LETTER FROM THE DEPUTY HEAD - OPERATIONS



DR. ELIJAH DIXON

Dear Colleagues and Friends,

I am very excited to be part of the leadership team of the Department of Surgery (DoS) at the Cumming School of Medicine (CSM) and Alberta Health Services (AHS). I will be working on a number of initiatives for the department. It is important to recognize the size and scope of the work being done within the Calgary Zone (CZ) by the DoS. In total 85,339 total procedures were performed at the adult urban sites and 10,816 procedures at the ACH. Utilization at all sites is consistently well above 90 per cent. In addition, I would like to highlight some of the other initiatives that will be our focus for 2018 and 2019.

The Block Booking Committee led by Dr. A. Crichton has done excellent work examining the formula that determines the individual score for each surgeon using the block booking formula. This work along with a revised block booking form template has helped us make significant progress towards a simpler, more cost-effective formula and form that takes into account important citizenship activities of department members.

We will work towards finalizing these changes and implement the new formula and form next year.

The department has had a Senior Surgeon Policy in place for many years that individual sections have used. For many reasons, it has become clear that the department should have one overarching policy agreed to and implemented by all sections. We will put together an ad hoc committee to tackle this issue and come up with a new policy for all sections in the coming months.

Despite all the great work completed by department members, we continue to receive a high volume of patient concerns. These are handled by the section and site heads and the leadership of the department if needed. We are in the process of implementing a prospective data collection system to track these complaints and ensure that they are responded to in a timely manner. Once this is in place, we will be able to report on the volume and handling of these going forward.

Dr. Wayne Matthews has been working on an audit of the DOS office space at the Foothills Medical Centre. Dr. Matthews, along with an ad hoc committee, have developed general principles around appropriate management and allocation of office space. These principles take into account various factors including the current limited space realities we are all dealing with. We hope to be able to report this to you in the coming months.

Other future endeavours include 360 evaluations of department's members and a support system for members dealing with high stress related to adverse patient outcomes (also known as 'Second Victim').

Sincerely,

Elijah Dixon MD BSc MSc FRCS FACS
Professor and Deputy Head - Operations Department of Surgery
Cumming School of Medicine, University of Calgary
Calgary Zone Clinical Department Head
Alberta Health Services

OFFICE OF SURGICAL RESEARCH

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

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

We have been undergoing a review and have used multimodal data collection methods to engage the voices of Department of Surgery members and understand their research challenges. Participation in these interactive methods have provided unique insights into common frustrations as well as potential solutions for improving productivity of our membership including:

- the desire to work within a culture of respect for research endeavors, such as funded and protected time provided through GFT positions or an AFP, and
- a cultural shift where colleagues cover pagers during protected research time.

Cultural change will require support from leadership. This will be aided by a well-equipped and well-staffed OSR working to enact the recommendations from the strategic planning process.

Within our mission statement we recommend concentrating on teams rather than individuals, and programs of research rather than individual research projects. Departmental grant support should expand over a longer period of time, with an expectation of sectional support that could be realized in different forms including grant dollars, a sectional statistician or a research assistant.



DR. CLAIRE TEMPLE-OBERLE
DIRECTOR OF THE OFFICE OF SURGICAL RESEARCH

Research infrastructure that is already in place, such as the institutes, research centers, or data repositories, will be developed to optimize integration, usefulness and efficacy with and for our researchers. Measurement will be key moving forward. ARO and block booking forms provided the information required to gauge productivity. However, simple summary reports of publications by the surgeon's and their sections are unavailable, challenging our ability to know if a new strategy is making an impact. Accurate measurement of grants and publications will add transparency to a surgeon's research contributions and ensure accountability of grant funds.

The OSR will be equipped with staff to enable communication, reduce administrative tasks, and provide bio-statistical support to help ensure sustainability.

Updating the grant structure to reflect our four pillars of research (Basic Science, Health Systems, Clinical Research and Education) and by providing two-year support will help our surgeons to better leverage these funds and position themselves well for outside funding sources.

Providing surgeon scientists with additional assistance when applying for tri-council or similar funding could help increase success in obtaining external funding. Finally, clarifying the purpose of “Research Day” and improving attendance will provide a good basis to collaborate, communicate, and celebrate our talent.

The OSR’s strategic plan is in alignment with the Cumming School of Medicine’s (CSM) plan. The Dean, Senior Associate Dean Research, Senior Associate Dean Health Research and Vice Dean support our vision and plan. They pledged \$250,000 in funds to augment the department’s commitment of \$1,000,000 to the new research funding strategy. Over the next three to five years we plan to deploy these resources to fund four pillar grants per year, targeted needs of external grant seekers and new recruits, sections for research-related purposes, and to hire an OSR research facilitator and a portion of a biostatistician. These funds, along with a department wide commitment to foster a culture of research and the continuous initiative by our members to make the most of the opportunities at the CSM, we are poised to enhance the productivity of our talented surgeons.

2017 Surgeon’s Day

We had a successful 2017 Surgeon’s Day event at the Children’s Hospital, with 109 attendees. There were 20 podium presentations, including two outstanding lectures by our otolaryngology judges, Drs. Shamir Chandaranda and Paolo Campisi, on their work on variations in care of thyroid cancer and the impact of careful epidemiologic work on a rare laryngeal disease. Top resident paper went to Dr. Andrea Devrome from Vascular Surgery, with her project on cardiac rehabilitation in patients with peripheral arterial disease.

Runner ups were Dr. Becky Hartley from Plastic Surgery with her work on a prediction rule for pediatric hand fractures and Dr. Carrie Liu from Otolaryngology for her study on antibiotic use in otitis media with effusion.

“Research is creating new knowledge.”

- Neil Armstrong

We had seven strong poster presentations. Top poster winner was Dr. Michael Horkoff from General Surgery who presented surgical decision making during laparoscopic cholecystectomy in patients with incidental gallbladder cancer, and honourable mention went to Mieke Heyns, a medical student who looked at provincial College of Physicians and Surgeons’ guidelines on smartphone clinical photography. At the awards gala, Dr. Joseph Dort received an award for his contributions in Basic Science Research and Dr. Elijah Dixon received an award for his contributions in Clinical Research.

Member Updates

- Dr. Fiona Costello completed her outstanding service as the Director of the Office of Surgical Research in 2017.
- Dr. Claire Temple-Oberle accepted the director role of the OSR.

OFFICE OF SURGICAL EDUCATION

The Office of Surgical Education is designed and structured to assist, coordinate and enhance education in the Department of Surgery for undergraduate medical students, postgraduate learners (such as residents and fellows) and continuing medical education students. We also focus on the professional development of the surgeons in the department. The office participates and facilitates education of surgical topics outside the department and in the community as well.

Undergraduate Medical Education

The Chair of the Office of Surgical Education represents the Department of Surgery on the Undergraduate Medical Education Committee (UMEC), which is a faculty-wide committee formulating overall policy for the undergraduate years. UMEC is chaired by the Associate Dean, UME, University of Calgary. Dr. Adrian Harvey and Dr. Artan Reso sit in the UME committee and are strong contributors.

The Undergraduate Medical Education curriculum comprises the activities of all of the departments through the standing course committees. As a member at large, Dr. Artan Reso, contributes to the policy development with regard to the undergraduate curriculum and carries information back to the department to be distributed throughout the various sections.

Surgery Clerkship

Educational representatives, from each of the participating sections, sit on the Surgical Undergraduate Education Committee (SUGEC).



DR. ARTAN RESO
DIRECTOR OF THE OFFICE OF SURGICAL EDUCATION

The mandate of this committee is to revise and improve clerkship experiences in core general surgery and other specialties, as well as to guide the experiences that each of our clerks have within the surgical rotations. These rotations consist of both compulsory surgical experiences in general surgery and electives in the other surgical specialties.

Dr. Adrian Harvey is the Course Chair of the Surgery Clerkship for the Department of Surgery and chairs the Surgical Undergraduate Education Committee (SUGEC).

Postgraduate Surgical Education

Surgical Foundations

Surgical Foundations (SF) is a Royal College requirement for many surgical specialties, and there are specific standards that we follow to manage and coordinate the rotations, curriculum and educational activities for the first two years of these specialties. The Surgical Foundations Program is led by Dr. Justin LeBlanc, (orthopaedic surgeon, South Health Campus).

An essential part of SF is the PGY-1 Core Surgical Skills course which was designed and continues to be expertly directed by Dr. Alicia Ponton-Carrs and Dr. Adrian Harvey. The course includes sessions on asepsis and instrument identification, knot tying and suturing, tissue handling and wound closure, surgical biopsy, catheterization, chest tube insertion and thoracentesis, central line insertion, and airway management and microsurgery. Every session has also incorporated CanMeds sessions. An OSPRE exam is used to evaluate all PGY 1 surgical residents at the end of the course. SF has been working hard to transform the PGY 1 course into a “boot camp”. The first “boot camp” of the department is set to start in July 2018.

The most significant event will be the introduction of CBD in July 2018. A tremendous amount of work has been completed by Dr. Justin LeBlanc and Dr. Chris Armstrong in preparation for the CBD implementation which will require participation and collaboration of educators from all training programs within the department to be most successful.

Surgical Residency Programs

The Postgraduate Surgical Education Training Committee (PGSTC) coordinates and plans the joint teaching activities for all surgical residents. These activities involve all years and programs of residency including primary programs of the department, primary residencies of other departments (Neurosurgery and Cardiac Surgery), secondary programs (Royal College Accredited Fellowship Programs,) and non-Royal College programs (Dentistry). The Chair of the committee is Dr. Lloyd Mack.

The Chair sits on the University PGME committee and helps formulate and consider all policies related to postgraduate education at the University of Calgary.

The PGSTC also interacts closely with the Surgical Foundations committee and helps fill in gaps in the curriculum and avoid duplication. Some of the surgical education is in collaboration with other departments such as anesthesia, obstetrics-gynecology, cardiac and neurosciences.

The PGSTC assists the surgical residency program in the preparation for the Royal College on-site surveys and accreditation process. This occurs every six years for programs with full accreditation and every two years for programs with provisional approval.

“Education is what remains after one has forgotten what one has learned in school.”

- Albert Einstein

There are residency programs in colorectal surgery, general surgery, general surgical oncology, ophthalmology, orthopaedic surgery, otolaryngology – head and neck surgery, plastic surgery, thoracic surgery, vascular surgery, pediatric general surgery and dentistry and oral health.

PGSTC does a great job of organizing high-quality lectures that cover all aspects of CanMEDS curriculum. Day to day issues and future challenges to residency programs are reviewed and debated on a regular base. PGSTC has been and will continue to be instrumental in assisting our residency programs while preparing for the implementation of CBD.

OFFICE OF SURGICAL EDUCATION

Fellowships

The Office of Surgical Fellowship's (OSF) goal is to bring together the administration of all the fellows in the Department of Surgery, regardless of their specialty, to facilitate the review of applications, licensing, immigration paperwork, creation and regular review of learning objectives and evaluations, and to encourage the fellows in pursuing academic interests in education and research. Since 2016, a combined research day of orthopaedics, spine, general surgery, ophthalmology, urology and plastic surgery has been extremely successful and a great display of the research done throughout the department.

The OSF manages the ongoing accreditation and approval of DoS Fellowships within the teaching sections. The number of fellows continues to increase and we currently have 26 fellows. Dr. James Powell is the Director of the Fellowship Office.

The fellows, both national and international, are raising awareness of the excellence of surgical programs in Calgary, in addition to building academic clinical units around the world.

The Department of Surgery, Faculty of Medicine, and Alberta Health Services have completed a major project to establish guidelines, training objectives, evaluations, contracts, and remuneration pathways for clinical fellows.

Continuing Surgical Education

Dr. Vick Chahal is the Department of Surgery representative on the University of Calgary Continuing Medical Education Committee. He coordinates activities and informs the various sections about opportunities for continuing professional development.

The CME lead, in coordination with the CSM CME office, has assisted in reaccrediting all of the department's rounds and educational activities within the guidelines provided by the Royal College of Physicians and Surgeons of Canada, which are also in line with the maintenance of competence program.

Surgical Simulation

Simulation has been an increasing component of the education of medical students, residents and surgeons. There are dedicated medical simulation sites in all of the Calgary hospitals in addition to mobile units managed by eSIM south. Since its opening in April 2014, the ATSSL (Advanced Technical Training and Simulation Centre) has been the site of many more complex surgical simulation activities. There are recurrent courses offered such as the yearly PGY-1 surgical skills course, the spine and peripheral nerve course for senior residents, and ATSL training to name a few.

ATSSL is a joint venture between the University of Calgary and Alberta Health Services and strives to provide a safe and effective environment for learners to improve their proficiency in medical and surgical skills before treating patients. While ATSSL staff provide the equipment and assistance necessary to run these sessions, the leadership continues to work at enhancing funding and endowment of the lab as well as to set up effective governance. Dr. Marcia Clark is the Medical Director of ATSSL. The most recent accreditation visit from the Royal College was completed successfully.

Member Updates

- Dr. Justin LeBlanc received the Excellence in Teaching by New Faculty Award
- Dr. T. Wayne Matthews received the Excellence in Teaching by Senior Faculty Award
- Dr. Frankie Fraulin received the Educator of the Year Award
- Dr. Shamir Chandarana received the Ectopic Educator Award
- Dr. Adrian Harvey received the CSM Undergraduate Medical Education Award for Clinical and Adjunct Faculty
- Dr. Lloyd Mack received the PGME Residency Program 5-6 Year Award

26
fellows

117
residents

OFFICE OF SURGICAL QUALITY

Mission: The Office of Surgical Quality (OSQ) exists to improve surgical healthcare within the Calgary Zone by focusing on improving outcomes, reducing or maintaining costs, improving patient and clinician experience, and implementing the quadruple aim.

Values

- Determining opportunities for improvement
- Interdisciplinary collaboration and teamwork are essential
- Ideas from improvement are complex, iterative and context sensitive
- Coal face is important
- Open-minded approach to solutions

The Office of Surgical Quality is proposing a strong approach to quality improvements in the Department of Surgery. This approach will adopt the framework for Alberta as outlined by the Health Quality Council of Alberta. The framework is internationally recognized for its focus of improvement of four targets, referred to as the Quadruple Aim including:

- improving outcomes,
- reducing or maintaining costs,
- improving patient experience,
- and improving clinician experience.

The office will initially focus the quality system and committee on clinical effectiveness. The quality of surgical care has many dimensions. The Alberta Quality Matrix for Health has divided these into acceptability, accessibility, appropriateness, effectiveness, efficiency and safety. Although all of these dimensions are important to surgical patient experience, the focus of our office will be effectiveness, efficiency and safety.



DR. ANDREW GRAHAM

DIRECTOR OF THE OFFICE OF SURGICAL QUALITY

Specifically, the focus will be on clinical outcomes such as morbidity, mortality, length of stay, functional improvement, survival and patient experience. It will not be focused on accessibility or management of harm suffered by patients or clinicians. The potential exists for expansion of our mandate if we achieve our priority goals.

Projects

At present, our office has two primary focuses. The first is the Surgical Data Integration Project to provide each section with clinical information to act as a baseline measure of clinical outcomes. This includes aiding the selection of clinical priorities for potential QI projects and developing a system to measure both processes of care and outcomes. The second is to establish the National Surgical Quality Improvement Program (NSQIP) program within the department.

Surgical Data Integration Project

The Section of General Surgery at the adult sites completed development of their baseline clinical reporting system. The report includes metrics such as length of stay, readmission rate, mortality, return to the operating room and patient experience.

The procedures targeted are appendectomy, laparoscopic cholecystectomy, large bowel resection at all adult sites. Site-specific procedures at PLC and SHC are bariatric surgery and at FMC are whipple procedures and hepatic resection. A “push” report is being finalized for circulation to section leadership. Thank you to Drs. Dixon, MacLean, Buie and Debru for their help with this. The Section of Plastic Surgery has agreed to be the next section to develop their baseline clinical reporting system. Thank you Dr. Harrop. The Section of Urology has kindly agreed to participate following Plastic Surgery. As urology has both NSQIP and ERAS reports, we are hopeful the section can allow for the development of an expanded data integration of these programs with AHS data warehouse information. Thank you Dr. Carlson.

NSQIP

The AHS leadership has mandated expansion of the NSQIP program to all sites within Calgary. The Office of Surgical Quality, department leadership, site leadership and the Calgary Zone Health Quality Council are meeting to determine roles and models of collaboration. The initial steps in the process are indicated below.

- The DoS Surgical Executive approved the motion that all NSQIP Surgical Champions become members of the Department of Surgery Quality Committee to share learnings and provide reporting back to the surgical executive.

- Surgical Champions for all sites have been identified and include:

RGH – Lea Austen

ACH – Mary Brindle

FMC – Don Buie

PLC – Liane Belland

SHC – Carmen Brauer

1. Aggregate data (includes service, subspecialty, site, department and zone level data) • The Calgary DoS and zone surgical executive recommends that all aggregate data be available throughout the AHS organization identifiable by site, service and zone. The data should be initially presented at the service, site and zone level.

Then it will be regularly reported to the interested levels of the organization with appropriate guidance for interpretation to more senior levels within the organization following two reporting cycles. The delay in sharing aggregate data allows groups to become familiar with the reports, validation of information and allow initial feedback to involved groups.

- The Calgary DoS and zone surgical executive believes widespread sharing of the data will:

- Promote the message of improvement, not sanction, as withheld data has the potential to send an alternative message

- Facilitate learning and collaboration throughout the organization

- Align with the principle of transparency of publicly funded organizations

“Quality is never an accident. It is always the result of intelligent effort.”

- John Ruskin

2. Physician Level Data

- The DoS and zone surgical executive does not recommend collection or reporting of individual surgeons at new sites at this time due to:

- The potential for harmful mischaracterization of individual surgeons given data limitations. This may lead to suspicion that this effort is not about quality improvement and could contribute to physician burnout.

- At present, additional work of the SCR is required to generate these reports and the reports are not standardized by NSQIP.

- The DoS and zone surgical executive believes that careful and thoughtful development of individual surgeon metrics data should be pursued. Individual metrics should be brought forward by following the guidelines and development process outlined in the Practitioner Quality Metrics document generated by Alberta Health Services Provincial Practitioners Executive Committee Patient Safety Working Group.



SECTION OF DENTISTRY AND ORAL HEALTH

The Section of Dentistry and Oral Health consists of three divisions; the Division of Adult Dentistry, the Pediatric Dentistry Division and the Division of Community Dentistry/Public Health Dental Clinics.

Our section provides comprehensive services to both adult and pediatric clients including addressing complex medical conditions, unique dental/oral challenges, and/or challenging behavioural issues.

We have initiated a number of new clinics and treatments including:

- An Orthodontic Clinic for patients with complex medical needs and debilitating dental malocclusion at the ACH Dental Clinic.
- A TMJ Clinic in collaboration with Rheumatology at the ACH Dental Clinic.
- A Prosthodontic Clinic at the ACH Dental Clinic.
- A neuromodulator treatment to patients with complex medical conditions and bruxism at the ACH and FMC Dental Clinics.
- A bone grafting/alveolar ridge preservation treatments within the FMC Dental Clinic.

The section is also involved in the ongoing planning of New Calgary Cancer Centre Dental Clinic.

Division of Adult Dentistry

The Division of Adult Dentistry in the Calgary Zone consists of 26 members. They work at the Foothills Medical Centre Dental Clinic where adult medically compromised and special needs patients are treated. There are three AHS Dental Clinics within the Calgary Correctional Centres where the inmate population is treated. Other division members operate on special needs and pediatric dental patients at the contracted NHSF operating room at the Foothills Medical Centre and some rural hospital sites.

Division of Pediatric Dentistry

The Division of Pediatric Dentistry in the Calgary Zone is composed of 19 pediatric dentists. The outpatient pediatric dental clinic at the Alberta Children's Hospital (ACH) offers comprehensive dental/oral care to infants, children, and adolescents. Treatment 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 Palate & Craniofacial Clinic, Nam Clinic, VPI Clinic, Orthodontic Clinic, OMFS Clinic and TMJ Clinic. The ACH Dental Clinic hosts the dental residents for two weeks at a time. They also host members of the division working in the ACH Dental Clinic preceptor and train residents in pediatric dentistry.

Division of Community Dentistry/Public Health Dental Clinics

The Division of Community Dentistry/Public Health Dental Clinics consists of nine members. The Public Health Dental Clinics provide dental treatment for individuals that otherwise depend on the primary and acute care system for relief of pain and infection. Albertans who typically do not qualify for dental insurance or government benefits can receive comprehensive dental treatment at the dental clinics within the Northeast Clinic at Sunridge Medical Gallery or the Sheldon M. Chumir Health Centre.

Albertans eligible for these dental services include the working poor, the unemployed, refugees, and the homeless population. Also, dental services are provided to patients referred by the Home Parenteral Therapy Program to address acute dental infection.

Dental treatment services are provided by AHS health professionals and the clinics are open to all Albertans without geographic restrictions.

Dr. Heidi Rabie is the Clinical Director of the FMC Dental Clinic and Zone Division Chief of Community Dentistry/Public Health Dental Clinics.

Member Updates

- Dr. Cholette continues to be part of the Canadian Dental Sleep Apnea Network and is collaborating on a research project: Incidence of Altered Craniofacial Morphology and Malocclusion in Children and Youth with Obstructive Sleep Apnea



DR. EDUARDO KALAYDJIAN
SECTION CHIEF OF DENTISTRY & ORAL HEALTH

- Drs. Kalaydjian and Paladino are part of a provincial dental group that helped publish a new Alberta Health Services Provincial Clinical Practice Guideline (Oral and Dental Care Management in Head and Neck Cancer, Jan 2017).

80% *increase in the number of patients seen at the public health dental clinics since 2013*

53*
surgeons in the Calgary Zone

*Includes casual surgeons

13% *of the public health dental clinics patients were refugees*



SECTION OF GENERAL SURGERY

The section of General Surgery performs surgery at all five Calgary hospitals and provides care in a wide variety of areas including benign and malignant diseases of the head and neck, breast, liver, pancreas, adrenal, and gastrointestinal tract. The section also includes trauma services that provide care to trauma patients in Southern Alberta.

In May 2017, the section held its first combined General Surgery Alumni and Resident Research Day. Many alumni returned to Calgary to attend the event, which was a great success.

Member Updates

- Dr. Tony MacLean has assumed the interim section head position from Dr. Elijah Dixon.

- Dr. Estifanos Debru has taken over as General Surgery Site Chief at the PLC.

- Dr. Chad Ball was a division leader in research with 34 peer-reviewed publications in 2017, and has been asked to be one of the main editors of the prestigious Mattox, Moore and Feliciano Trauma textbook.

- Dr. May Lynn Quan and the Breast Health group received a \$5,000,000 donation to fund the Calgary Breast Cancer Research Fund, whose mandate is to provide a health services research environment supporting tangible innovations and improved clinical outcomes in the care

of patients with breast cancer. The program currently supports a post-doctoral fellow, program manager and full-time data analyst in addition to being a founding pillar of ACORN (Alberta Cancer Outcomes Research Network) established in 2017.

- Dr. Chris Armstrong has taken a co-leadership role in the Competency by Design (CBD) training that is being rolled out soon.

- Several faculty members volunteered in third world countries, led by Dr. Gwen Hollaar. Members volunteering abroad include Dr. Hollaar (Laos), Dr. Greg McKinnon (Vietnam), Dr. Jeff Way (Iraq), and Dr. Walley Temple and Dr. Antoine Bouchard-Fortier (Ecuador).

- Dr. Mike Kwan, Dr. John Graham, Dr. Mike Dunham, and Dr. John Kortbeek won the 2018 UME Gold Star clerkship teaching awards.

- Dr. Mark Lipson won the 2017 Kristin Sivertz Resident Leadership award by the Royal College of Physicians and Surgeons of Canada.

52

*surgeons
in the
Calgary
Zone*

93

*peer-reviewed
publications*

\$214,000

*in research
grants in 2017*



DR. TONY MACLEAN

INTERIM SECTION CHIEF OF GENERAL SURGERY

- Dr. Lloyd Mack won the 2017 PGME Appreciation Award for outstanding commitment to residency education.

SECTION OF OPHTHALMOLOGY

The Section of Ophthalmology provides clinical services through Alberta Health Service facilities, non-hospital surgical facilities and private offices. There are also outpatient clinics located at the Rockyview General Hospital and Alberta Children's Hospitals. This section performs surgeries related to the eye including the retina and the cornea in addition to providing services for glaucoma, ocular oncology, urgent eye care, neuro-ophthalmology, comprehensive ophthalmology, adult strabismus, thyroid disorders and low vision services. We operate at five non-hospital surgical facilities for cataract and non-cataract ophthalmic surgery.

The section offers a number of programs and services including:

- Lions Eye Bank of Southern Alberta at Rockyview General Hospital
- Sight Enhancement Clinic at Rockyview General Hospital
- Dr. Bill Astle participates in the Children's Travelling Sight Enhancement Clinic for Southern Alberta
- Calgary Eye Foundation (President Dr. Carolyn Skov)
- Calgary Ophthalmic Medical Technology Training Program at Rockyview General Hospital
- Subspecialty clinics at Rockyview General Hospital: cornea, glaucoma, Marfan's syndrome connective tissue disorders eye clinic, neuro-ophthalmology, ocular oncology, retina, solid organ transplant eye clinic, adult strabismus, urgent eye and thyroid
- Retinopathy of prematurity screening service to the Neonatal Intensive Care Units at Alberta Children's Hospital, Foothills Medical Centre, Peter Lougheed Centre, Rockyview General Hospital and South Health Campus.

Following a Royal College External review, the University of Calgary Ophthalmology program lead by Dr. Chris Hanson as program director went from "intent to withdraw" status by the Royal College of Physicians and Surgeons of Canada back to a full five-year accreditation program. Our program is now leading the country in cataract case numbers and allows a personalized surgical schedule in accordance with both the Royal College and the resident's personal career goals. We have expanded the program to take two residents a year.

The Royal College review has given us direction for restructuring the training program. We have made many infrastructure improvements. Recently, we received new resident surgical loupes to be used when on call and are now in the process of renovating our surgical wet lab and resident common room. We have acquired two new operating microscopes, one for Rockyview and one for Alberta Children's Hospital.

We have also acquired new surgical loupes and lenses for the residents. Coverage of retinal eye examinations for retinopathy of prematurity is now at all five existing neonatal intensive care units, including the South Health Campus and the expansion at Alberta Children's Hospital.

There has been continued positive feedback from emergency room physicians by allowing direct booking into the Urgent Eye Clinic by emergency room physicians after regular office hours, and also by running of the Urgent Eye Clinic on weekends and statutory holidays at the Rockyview General Hospital.

A resident mentoring program has been instituted and an external ombudsman has been engaged.

Member Updates

- We have two new residents, Dr. Natalie Doughty and Dr. Etienne Benard-Seguin in the PGY1 year as per our CARMS match.
- Dr. Malcolm Gooi will write his Royal College Certification in June 2018 along with Dr. Helen Chung.
- Dr. Vivian Hill and Dr. Stephanie Dotchin have taken leadership roles in teaching ophthalmology in the newest undergraduate medical curriculum.
- Dr. John Huang has been active in coordinating ophthalmology electives and evaluations for medical students from University of Calgary and other Canadian universities.
- Dr. Adam Muzychuk has successfully completed the search and selection process for the Cornea academic appointment.



DR. MICHAEL ASHENHURST
SECTION CHIEF OF OPHTHALMOLOGY

51
*surgeons
in the
Calgary
Zone*

12
*research
publications*



SECTION OF ORAL & MAXILLOFACIAL SURGERY

The Section of Oral and Maxillofacial Surgery delivers surgery to the Peter Lougheed Centre, Foothills and Alberta Children's hospitals. The section specializes in treating many diseases, injuries and defects in the head, neck, face, jaws and the hard and soft tissues of the oral (mouth) and maxillofacial (jaw and face) region.

The section is committed to continuing to advance the specialty of oral and maxillofacial surgery in the Calgary Zone and to provide excellent treatment for patients.

OMFS members provide services at the Cleft Lip and Palate Clinic, the Craniofacial Clinic, the Pediatric Dental Clinic and the Temporal Mandibular Joint/Rheumatology Clinic at the Alberta Children's Hospital. Members of the service are also involved in the Head and Neck Tumor Clinic at the Tom Baker Cancer Center and the Foothills Hospital Dental Clinic where they provide surgical services for cancer patients.

The section increased the number of patients treated with obstructive sleep apnea and total temporal mandibular joint (TMJ) replacements. Previously, some patients for orthopedic TMJ joint replacement/jaw surgery travelled out of Calgary and even to Toronto for this procedure. Three of the section members are now routinely providing stock and custom total joint replacement for congenital and acquired joint disorders.

This section completed the first ever immediate mouth, jaw and facial reconstruction surgery for oral and head and neck cancer. This "Jaw in a Day" reconstructive surgery combined free flap defect reconstruction with bone and soft tissue, immediate dental implants and teeth. This treatment provides earlier return to function and minimizes the devastating effects of facial deformity secondary to head and neck cancer surgery. Virtual surgical planning with 3D printed cutting guides, 3D guided implants and 3D printed prosthetics are all newer technologies that improve the accuracy of oral and facial reconstruction.

The division members provide call coverage for the five acute care hospitals and the urgent care centres in the Calgary Zone as well as call for RAPID for southern Alberta and southeastern British Columbia.

385 *surgical cases at the
Peter Lougheed
Hospital*

192 *orthognathic jaw surgery
surgical cases*

897 *surgical procedures in
non-hospital surgical
facilities*

11
*surgeons
in the
Calgary
Zone*



DR. RICHARD EDWARDS
SECTION CHIEF ORAL & MAXILLOFACIAL SURGERY



SECTION OF ORTHOPEDIC SURGERY

The Section of Orthopaedic delivers surgery to all five Calgary hospitals. We perform surgeries related to the musculoskeletal system including joint replacement, spine surgery and reconstruction.

In November 2017, we received the Infrastructure and Simulation Teaching Grant from PGME totalling \$31,999.61. These funds were used to purchase a sophisticated 3D printer to enhance resident learning. Specifically, the 3D printer is used for customization and visualization of complicated fractures and other musculoskeletal injuries. We also secured funding for the purchase of Ammolite Arthroplasty Knee Models and customized clamps. These models were trialled by senior residents and faculty in August 2017 and received positive evaluations and a higher fidelity rating than other knee models. The models will be used in upcoming arthroscopy sessions.

On September 23, 2017, the section held its very first Afternoon in Arthroplasty event to deliver public education to patients waiting for, or curious about, hip and knee replacement surgery. The event was hugely successful with more than 250 members of the public in attendance.

We welcomed Dr. Lucas Murnaghan from the Hospital for Sick Children in Toronto, Ontario and Dr. Norgrove Penny from the University of British Columbia as visiting professors for 45th Annual Paediatric Orthopaedic Seminar and Townsend Lecture. They delivered lectures and spent time with the orthopaedic surgery residents on October 19 - 20, 2017, along with local speaker, Kathryn Schneider from the Sport Injury Prevention Research Centre at the University of Calgary.

We held the 19th Annual Glen Edwards Day on November 17, 2017 at main campus, University of Calgary. The topic was "The Painful Knee" and the event drew a crowd of more than 100 attendees. Local orthopaedic surgeons and sports medicine physicians spoke, totalling 12 presenters. The event was hosted by the Sport Medicine Knee Division of Orthopaedic Surgery.

On the 6th Annual Orthopaedic Resident Research Day the following awards were given:

- Recipient of the Dr. Robert Townsend Scientific Award for the Best Podium Presentation: Dr. Jonathan Bourget-

Murray "Long-term Surgical Relief of Back Pain Following Lumbar Total Disc Replacement: Minimum 5-year Follow-up Results at Two Canadian Institutes."

- Recipient of the Gary Hughes Resident Research Award for Runner-Up Podium Presentation: Dr. Denis Joly "Retrospective Matched Cohort Study Comparing Outcomes Between Direct Anterior, Lateral and Posterior Approaches for Total Hip Arthroplasty."
- Recipient of the Dr. Robert Townsend Scientific Award for the Best E-Poster: Dr. David Cinats "Assessment of Femoral Version Using Biplanar Radiography."

Member Updates

- Dr. Peter Lewkonja chaired Course 2 for the Class of 2020 which involved Orthopaedic faculty, residents and fellows filling 205 teaching slots. These slots included physical exams, anatomy labs, small group case sessions and OSCE exams. Participation from all 20 residents, five fellows and 35 faculty was well received by the UME students.
- At the Annual UME Faculty Appreciation Night, the following orthopaedic surgeons received recognition:
 - Course 2: Dr. Peter Lewkonja
 - Gold Star Award: Dr. Peter Lewkonja and Dr. Carol Hutchison
 - Honour Roll: Dr. Paul Duffy, Dr. Jeremy LaMothe, Dr. Ian Le, Dr. Mike Monument, Dr. Prism Schneider
 - Six residents successfully passed their Royal College of Physicians and Surgeons of Canada Examinations in June 2017: Jennifer Leighton, Devin Lemmex, Chris Nielsen, Jessica Page, Natalie Rollick and Ed Schwartzenberger.
 - Four new residents began their orthopaedic surgery residency training on July 1, 2017: Michael James (Washington University School of Medicine in St. Louis), Taryn Ludwig (University of Calgary), Jennifer Purnell (University of British Columbia) and Murray Wong (Western University).
 - The Annual Spencer McLean Award was given to Jessica Page (R5) in June 2017.
 - The 2017 Orthopaedic Preceptor of the Year Award, as voted by residents was presented to Dr. Justin LeBlanc for his outstanding commitment to residency education.
 - Dr. Daniel You (R2), selected by PGME, attended the CBD Resident Summit at the Royal College in Ottawa.



DR. KEVIN HILDEBRAND
SECTION CHIEF OF ORTHOPEDIC SURGERY

\$80,000 *in research grants*

69
*surgeons
in the
Calgary
Zone*

50
*research
publications*

- During Surgeon's Day 2017 several of our Orthopaedic Faculty were recognized as follows:
 - Dr. Justin LeBlanc – Excellence in Teaching Award for New Faculty
 - Dr. Jacques Bouchard – McPhedran Award for Surgical Innovation
 - Dr. Stephen Miller – Distinguish Service South Health Campus
 - Dr. Raj Sharma – Surgical Innovation Award
 - Dr. Maureen O'Brien – Distinguished Service Rockyview General Hospital



SECTION OF OTOLARYNGOLOGY HEAD AND NECK SURGERY

The Section of Otolaryngology delivers surgery to all five Calgary hospitals. Surgeons are geographically concentrated at the various hospital sites to promote high-quality, efficient patient care. They also provide focused surgical experiences for the residents and opportunities for clinical studies. General otolaryngologists are present at all sites providing comprehensive care across the spectrum of otolaryngologic disorders.

The section takes special pride in providing a highly successful otolaryngology surgery residency training program. The hospital focused organization of subspecialty care in Calgary has facilitated our transition to competency-based medical education (Competence by Design) beginning in July 2017.

The Ohlson Research Initiative, a clinical and laboratory head and neck oncology research program embedded in the Arnie Charbonneau Cancer Research Institute and the Rhinology clinical outcomes program of the Rockyview General Hospital are leading the section in research highlights. The Otolaryngology–Neurotology, Laryngology and Paediatric Otolaryngology are all active and expanding clinical research foci within the section.

Otolaryngology at the University of Calgary/ Alberta Health Services' Calgary Zone is a rapidly evolving patient care, teaching and research enterprise that strives to be national and international leaders in the specialty.

Ongoing focused recruitment and geographic concentration of subspecialty programs should allow for improvement in clinical care, medical education and research output at all sites.

Otolaryngology Head & Neck Surgery is the first Royal College surgical specialties to transition to Competence by Design (competency-based medical education) with the first cohort of residents enrolled in July 2017.

Member Updates

- Dr. Euna Hwang joined the otolaryngology group at South Health Campus in July 2016. She completed her Otolaryngology–Skull Base Surgery Fellowship in Toronto.
- Dr. Derrick Randall joined the Peter Lougheed Centre otolaryngology group in July 2016. He completed his Laryngology Fellowship at the University of California, Davis.

- Dr. Jonathon Dautremont was recruited to the Rockyview General Hospital from the Otolaryngology Residency at the University of Calgary program in July 2016. He is currently completing a Master of Science in Healthcare Quality at Queen's University.

- Dr. Carrie Liu, received the Best Overall Research Award at the 2017 Surgeons' Day Research Symposium for her research presentation entitled "Oral Antibiotic use for Otitis Media with Effusion: Ongoing Opportunities for Quality Improvement".

- Dr. Shamir Chandarana, served as the McMurtury Lecturer and internal judge at the 35th Annual Surgeons' Day Research Symposium. His keynote lecture entitled "Variation in Surgical Practice: Lessons Learned from the Management of Thyroid Cancer" was very well received by colleagues and residents across all surgical specialties.

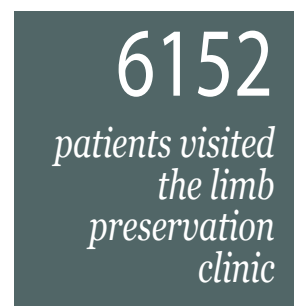
- Dr. Chandarana was awarded Ectopic Educator of the Year, nominated by the residents in the section of Plastic Surgery for his work as an educator in and out of the operating room.

- Dr. Doug Bosch was awarded the Department of Surgery Distinguished Service Award for the Peter Loughheed Centre, in recognition of the significant contributions he has made to the care of surgical patients and the Department of Surgery over the years.

- Dr. Wayne Matthews was awarded the Excellence in Teaching Award for Senior Faculty, this award celebrates Dr. Matthews' dedication to providing excellence in teaching at every level of residency.



DR. DOUG BOSCH
SECTION CHIEF OTOLARYNGOLOGY
HEAD AND NECK SURGERY





SECTION OF PEDIATRIC SURGERY

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 Section of Dentistry, Section of Oral & Maxillofacial Surgery, the Department of Neurosciences and the Department of Obstetrics and Gynecology.

The theme this past year was cost containment while maintaining quality of care. We implemented the Short Stay Patient Flow Optimization project, which looked at factors contributing to the delay in start times and focused on moving up the discharge time of certain patient groups. Improving the overall patient experience and limiting pain was another goal for our section, and the Procedural Sedation project was implemented to standardize the protocols around administering sedation outside of the operating room. This worked nicely with the commitment to comfort, hospital-wide priority. The caring for patients with special needs project looked at individualizing protocols for patients with a diagnosis of autism spectrum disorder. The ACH surgical services leadership team also developed the ACH operating room manual, which incorporates into one document "how things work" at ACH for elective, urgent and emergency surgery.

On September 27, 2016, the Alberta Children's Hospital had its 10th anniversary at the new site, which was recognized by the mayor and provincial government representatives.

A new multidisciplinary clinic – the Midface Anomalies Clinic – was started this year, led by plastic surgery along with members from oral and maxillofacial surgery, otolaryngology and ophthalmology.

This EQUiS (Efficiency, Quality and Innovation and Safety) research platform, led by Dr. Mary Brindle, has developed an incredible research team that, even in its earliest stages, is showing significant promise. EQUiS is sponsored by the Brian and Brenda MacNeill Chair in Pediatric Surgery and the team was successful in obtaining further grants including:

- Surgery SCN Seed Grant funding for the Urgent Access Realist Review (led by Dr. Rob Harrop),
- a Clinical Research Fund Seed Grant for the Infection Audit study,
- an Emergency SCN Systematic Review Grant to study the safety and efficacy of tranexamic acid and,
- a Clinical Research Fund Planning Grant to study the Surgical Safety Checklist.

Member Updates

Dr. Warren Yunker continues his grant sponsored work studying the pediatric upper airway microbiome. He has also collaborated with his colleagues, Dr. James Brookes and Dr. Derek Drummond, along with Melanie Noel PhD, to evaluate the role of parent-child narratives in children's pain memory development. The Pediatric Urology team of Drs. Bryce Weber, Anthony Cook and Carolina Fermin-Risso are involved in a multinational, randomized control trial looking at the use of BOTOX in the treatment of urinary incontinence due to overactive bladder. They are also involved in another study evaluating pain outcomes of caudal vs uroinguinal nerve blocks in children undergoing orchidopexy. In Pediatric Orthopedics, Dr. Elaine Joughin is leading a prospective audit of pain management of pediatric orthopedic patients after discharge from hospital.

- In the area of Pediatric Spine, Dr. Fabio Ferri-de-Barros and Dr. David Parsons continue their work studying surgical simulation for scoliosis surgery training, supported by an ACH Hospital Foundation Child Health Grant.

- Dr. Paul Beaudry has received a Surgery SCN Grant to characterize central venous lines biofilm. He also has significant support from the Thomas Mueller Phage Display Project/James Birrell Foundation, University of Toronto, to analyze the phage display of high-risk neuroblastoma. He also has a Calgary Zone Quality Council – QI Initiative Grant to look at safe central line insertion in the operating room at ACH.

- Dr. Andrew Wong was named the ACH Medical Staff Association Physician of the year.

- Dr. Frankie Fraulin was recognized as the Department of Surgery Educator of the Year.



DR. FRANKIE FRAULIN
SECTION CHIEF OF PEDIATRIC SURGERY

11,349 *pediatric cases in Calgary*

97% *operating room utilization*

- Dr. Lopushinsky received the Associate Dean's Letter of Excellence for Course VII -- Comprehensive Clinical Skills Curriculum for Clerkship Class 2016.

- Dr. McPhalen received an Associate Dean's letter of excellence, Platinum award for small group teaching at the Med School.

- Dr. Robin Eccles was named the 2017 Distinguished Service Award recipient for the Alberta Children's Hospital. This year is her 25th anniversary as a staff surgeon.

44
research publications

45
surgeons in the Calgary Zone



SECTION OF PLASTIC SURGERY

This section delivers surgery to all five hospitals in the Calgary Zone and performs surgeries requiring a skin graft most often due to broken bones in the face or hands, as well as injury to the hands, arms or legs.

The Section of Plastic Surgery provides excellence in clinical care across the entire spectrum of plastic surgery, and in resident education.

Dr. Temple-Oberle hosted the Alberta Breast Reconstruction Awareness Day on October 18, 2017. Over 400 patients and family members attended this event (the largest attendance for any Canadian centre) where they had the opportunity to hear formal presentations, and meet individually and in groups with others who had been through breast reconstruction, were partners of reconstruction patients or were surgeons performing reconstruction.

The section has achieved a number of quality improvements including:

- A variety of clinical databases have been established to review delivery of care to certain large subsets of patients. These include a ACH vascular birthmark clinic head, neck cancer (in collaboration with ENT), burn and breast reconstruction databases.
- In collaboration with our ENT colleagues, a standardized clinical care pathway is now well established for patients undergoing major head and neck cancer resection and immediate reconstruction. There is also ongoing evaluation of outcomes and complications among patients going through the pathway.
- In collaboration with our plastic surgery colleagues in Edmonton and oncologic colleagues in Edmonton and Calgary, we have established a Provincial Breast Reconstruction Steering Committee. The task of this committee is to increase efficiency for referral and treatment of oncologic patients requiring immediate or delayed reconstruction following cancer resection
- Dr. Nickerson has developed and implemented a successful Plastic Surgery Trauma Service model at the Foothills Medical Centre (FMC) which has resulted in greater efficiency in the treatment of traumatic injuries by Plastic Surgery at FMC.
- A central intake pathway has been established for both urgent and non-urgent plastic surgery referrals at the Alberta Children's Hospital and the South Health Campus.

Faced with continually increasing volumes of complex patients, we aim to build on our past successes by developing novel approaches to providing efficient and high-quality patient care. We recognize the need to increase our academic profile nationally and internationally and feel it is necessary to increase our complement of academic plastic surgery faculty through focused recruitment.

Member Updates

- Dr. Temple-Oberle, appointed Interim Director, Office of Surgical Research.
- Dr. Fraulin was awarded the 2016 Department of Surgery Educator of the Year Award.
- Dr. Harrop served as the invited professor for the Division of Plastic Surgery at Western University, London, Ontario, June 1-2, 2017.
- Dr. Brett Byers has recently been recruited back to Calgary as a staff plastic surgeon at the Rockyview General Hospital.
- Drs. Arezoo Astanehe and Jill Stone successfully completed their FRCSC specialty examinations in plastic surgery. Dr. Astanehe is going to be undertaking fellowship training in Vancouver and Belgium. Dr. Stone is beginning a microsurgery fellowship at Johns Hopkins University.
- Drs. Schrag and Matthews, with the assistance of other plastic surgery faculty again conducted the Microsurgical Skills Simulation Course in June, 2017 for the plastic surgery residents.
- Drs. Schrag, Harrop and Yeung (in collaboration with faculty from Clinical Neurosciences) served as faculty in the U of C Spine and Peripheral Nerve Course held on January 7, 2017.
- Plastic Surgery Resident Research Day held on December 23, 2017, with Dr. Carolyn Levis (McMaster University) serving as visiting professor.
- Dr. Harrop - PhD Committee for Ms. Jacinda Larsen whose research is entitled "Analysis of Midfacial Shape and Craniofacial Growth Patterns Following Cleft Lip and Palate Reparative Surgery."



DR. ROB HARROP
SECTION CHIEF OF PLASTIC SURGERY

29
surgeons
in the
Calgary
Zone

6
research
publications

- Dr. Nickerson - PhD Committee for Holly Sparks in Veterinary Medicine.
- Drs. Fraulin and Harrop were on the MSc Committee for Dr. Becky Hartley (R4).
- Dr. Temple-Oberle coordinated the oncologic reconstruction fellowship; the most recent fellow has been Dr. Beatriz Lopez Obregon.
- Dr. Schrag coordinated the University of Calgary Microsurgery Fellowship; the current fellow is Dr. Rasha Baaqeel.
- Dr. McPhalen is an active member of the University of Calgary Master Teacher Program and serves a Co-Chair for the Physician Wellness Course in the Undergraduate Medical Education Office



SECTION OF PODIATRIC SURGERY

The Section of Podiatry delivers surgery to all five Calgary hospitals and performs surgeries relating to disorders of the lower extremity including the foot and the ankle.

The Limb Preservation Clinic at Peter Lougheed Centre continues to grow exponentially. In fact, our section has become a leading institution of the diabetic foot in Western Canada. The demand for high-risk diabetic foot care is growing as more attention is given to diabetic foot care and screening. We are currently involved in two studies to help prevent diabetic foot ulcers and decrease their healing time. Last year, 6152 patients visited the limb preservation clinic, which is an almost 50% increase from the previous year.

Over the past five years, our section has been self-reporting post-operation complications and issues for non-hospital surgical facilities. The cases that have complications are also discussed at section meetings. This allows us to learn from each other and provide ideas on how to improve the system and set up pathways to prevent further complications.



DR. FRANCOIS HARTON
SECTION CHIEF OF PODIATRY

12
*surgeons
in the
Calgary
Zone*

11
*research
publications*

6152
*patients visited
the limb
preservation
clinic*

SECTION OF SURGICAL ONCOLOGY

This Section of Oncology delivers surgery to three hospitals in the Calgary including the Alberta Children's Hospital, Foothills Medical Center and Peter Lougheed Center. The section performs surgeries related to cancer including breast, colorectal, endocrine, head and neck, hepatobiliary, lung, melanoma and sarcoma.

Our section consists of a multidisciplinary group of surgeons dedicated to cancer care as their primary goal. Five members are located full-time in the Tom Baker Cancer Centre and three of these are primary appointments to the Department of Oncology with cross-appointment to surgery. All other members are primarily appointed to the Department of Surgery and are located at various sites.

Plans for the new cancer centre were finalized and construction is well underway. The centre will be completed by March 2024 and will provide a full range of cancer treatment services and be a leading international research centre.

Growth in the patient population and expansion of facilities will provide an opportunity for recruitment of academic surgical oncologists in the near future. Health outcomes research will be a major focus of future activity and recruitment.

Member Updates

- Dr. Mack became President of the Canadian Society of Surgical Oncology and the Chair of the Post-Graduate Surgical Training Committee.
- Dr. Temple-Oberle received the PARA Resident well-being award and also assumed the leadership of the Office of Surgical Research.
- Dr. Temple organized and hosted a national conference on patient-reported outcomes.
- Dr. Quan was a founding member of the Alberta Cancer Outcomes Research Network (ACORN).
- Surgical Oncology Fellow Dr. Eva Thiboutot graduated and accepted a teaching position at the University of Montreal.

7*
*surgeons
in the
Calgary
Zone*

*Includes cross appointments

4 *members completed research
sabbaticals*

29
*research
publications*



DR. GREG MCKINNON
SECTION CHIEF OF SURGICAL ONCOLOGY



SECTION OF THORACIC SURGERY

The Section of Thoracic Surgery delivers surgery to the Foothills Medical Center and performs surgeries relating to chest problems including thoracotomies and pneumonectomies as well as other lung diseases.

Last summer and fall, over four full days, all groups involved with the complex process of moving thoracic surgery patients from their first clinic visit to the operating room undertook an extensive continuous improvement process to detail all the steps and processes that impact time to care. Significant learnings, modifications and efficiencies were detailed and are actively being evaluated to ensure the shortest most efficient path to cancer care. We would like to thank Dr. Janet Edwards for her dedication to the process and drive to make changes that are impacting patient care.

Member Updates

- Dr. Andrew Graham has taken the position as head of the Office of Surgical Quality. Dr. Graham has been instrumental in developing and modifying an innovative electronic medical record, data collection system for Thoracic Surgery patients providing real-time morbidity and mortality information. A first of its kind in the Calgary zone.

- Dr. Gary Gelfand received a number of prestigious awards, including a promotion to Associate Professor and the Alberta Medical Association Medal for distinguished service.

- Dr. Janet Edwards has taken on the role of Undergraduate Medical Education lead for the section. She presented her experience with thoroscopic segmentectomy at the 54th Society of Thoracic Surgery Conference in Fort Lauderdale. She also organized and moderated the STS/CATS/CSCS: Difficult Decisions in Thoracic Surgery—Advice From Canadian and American Experts session.

- Dr. Colin Schieman attended the Harvard Education Course on medical education to enhance his role as program director. He has implemented the one45 evaluation process for the residency training program streamlining the evaluation process. He is hard at work planning and implementing the Competency by Design program (competency-based medical education).

- We value our many allied health care associates including Kathy MacPhail and Kim Roberts for their continued vigilance, leadership and stewardship of Unit 61 and the in-hospital care of our complex patients.

- We also welcome Megan Schmidt in the permanent role of clinician in the thoracic surgery operating room. We appreciate her dedication and service to patients in the operating room over the past few years.



DR. SEAN MCFADDEN
SECTION CHIEF OF THORACIC SURGERY

6
*surgeons
in the
Calgary
Zone*

15
*research
publications*



SECTION OF TRANSPLANT SURGERY

The Section of Transplant Surgery delivers surgery at the Foothills Medical Center and performs surgeries relating to tissues or organs transplant.

The goal of our section is to increase transplant activity in Southern Alberta while maintaining the highest quality and safety standards for our patients. To accomplish this, additional resources are required, particularly in regards to human resources.

We are also restructuring the section to increase efficiency, ensure resources are efficiently utilized to their highest potential, and increase accountability for the members of the section and safety standards for our patients.

Our section continues to see considerable success in both kidney transplant growth and the non-heart beating donor program operation. Also, ABO incompatible kidney transplants are allowing successful transplants despite different patient/donor blood types. The non-heart beating donor program operation also continues to be successful.

In May 2017, we received the Annual Surgical Innovation award for “Retro-peritoneal Cooling for Kidney Preservation from Multiorgan Cadaver Donors (A Novel

Technique)”. This technique was presented at the Annual NPSA and published in the American Journal of Surgery.

Our section has also been working towards an initiative where a full formal, professional and accountable model of patient care will be developed in accordance with CPSA guidelines and regulations, Alberta Health Services and the University of Calgary policies and procedures. This will create a respectful, professional, and ethical environment for section members and a safety-focused model for patient care.

The non-transplant elective surgery booking process continues to grow in success with increased efficient use of OR time and reduced number of cancelations. We continue to train general surgery residents in transplant, vascular access and peritoneal catheter surgeries, immunology, and management of immunosuppression and immunosuppressed patients.

For the first time in the history of the section, the number of transplants exceeded 100, with 108 transplants performed in 2017.

Member Updates

- Dr. Don Major, Hepatobiliary Surgery Fellow attended a two-month rotation in our section. We would like to thank Dr. Elijah Dixon and Dr. Chad Ball for this opportunity.



DR. ANASTASIO SALAZAR
SECTION CHIEF OF TRANSPLANT SURGERY





SECTION OF UROLOGY

The Section of Urology provides surgical services at the Southern Alberta Institute of Urology (SAIU) at the Rockyview General Hospital. The team of 14 adult urologists and three pediatric urologists serves patients at all acute-care sites in Calgary, providing care to individuals with a variety of urological conditions.

We offer specialized programs, including the Chronic Kidney Stone Clinic at the South Health Campus, Vesia (Alberta Bladder Centre) at SAIU, the men's health program at SAIU, and prostate cancer rapid-access clinics at the Prostate Cancer Centre.

Two fellowship programs are run through the section including a fellowship in urologic oncology and a fellowship in reconstructive and functional urology. Members are also involved in a variety of clinical trials and basic-science research.

Our surgeons and staff have worked hard over the past year to improve patient care continually. Our clinical service programs have grown as construction was completed in early spring 2018 on an expanded clinic-area for our men's health program. Also, the development of an acute kidney stone clinic at the South Health Campus is underway.

We continue to expand our reach through social media. We are excited to have Facebook and Twitter pages, a blog

and an email newsletter. These media tools allow us to provide important urological health information to our patients and the public.

Our National Surgical Quality Improvement Program (NSQIP) team has been working to improve patient care. Over the past year, we have set goals to improve rates of urinary tract infections and cystectomy lengths-of-stay. An order-set for catheterization has been developed and implemented to shorten the length of time patients are catheterized, and thereby improve rates of urinary tract infections.

We have formed a cystectomy working group, which meets monthly, to tackle quality issues. We're happy to report that NSQIP data shows that cystectomy length-of-stay has improved. Our next area of focus will be decreasing urology readmissions.

Members of the urology section are actively involved in research in the areas of prostate, bladder and kidney cancers and urinary incontinence. Our work includes basic science research, translational work and pharmaceutical studies.

Current prostate cancer studies include investigation of early diagnosis of prostate cancer, novel biomarkers for diagnosis and disease management, and new treatments for advanced-stage cancer. The Alberta Prostate Cancer Research Initiative is a province-wide collaboration focused on developing new diagnostic tests for prostate cancer. Currently, over 2900 patients have enrolled in these studies.

Other active studies include the following:

- An investigation of the role of high definition ultrasound in the diagnosis of cancer in men undergoing biopsy.
- An examination of the role of gene mutations in urological cancer.
- A collaboration with the metabolomics lab at the University of Calgary focusing on determining benign versus cancerous kidney tumours using blood and urine testing.
- A multicenter trial of CT/nuclear medicine imaging for localized prostate cancer (ProSPECT).

We are the top accruing centre in Canada for five of our current trials.

Vesia [Alberta Bladder Centre] continues to develop its independently-funded research program focused on the delivery of care and outcomes for lower urinary tract symptoms.

Our section will continue to find innovative and creative solutions to meet the needs of our growing volume of patients. A working group is developing plans for a dedicated acute kidney stone clinic at the SHC. Given the high volume of patients with urologic cancers, we have begun recruitment for an additional urologic oncologist with expertise in prostate cryotherapy.



DR. KEVIN CARLSON
SECTION CHIEF OF UROLOGY

Member updates

- Two of our urologists, Drs. John Dushinski and Martin Duffy, have been involved in international humanitarian work, taking their medical skills to under-served populations in Palestine and Guatemala, respectively.
- We have welcomed Dr. Kamaljot Kaler to our team. Dr. Kaler comes to us from the University of California, Irvine. He brings expertise in the area of endo-urology as well as substantial research and leadership skills.
- In December 2017, Anju Kreer joined our team as the urology nurse practitioner for South Health Campus. Anju has added much needed support to our urology clinics.
- Recruitment has begun for another urologic oncologist for our team. We hope to have the recruit join us in the fall.

17
surgeons
in the
Calgary
Zone

4,040 urology cases
completed over
the past year

1,434 urology cancer
cases completed
over the past year

SECTION OF VASCULAR SURGERY

The Section of Vascular Surgery sees outpatients and provides elective surgery for aneurysms, extra-cranial carotid disease, peripheral vascular disease and lymphatic disease at the Peter Lougheed Centre. We also provide vascular emergency and trauma services at all sites in Calgary. Our section participates in multicentre, multi-national clinical and FDA trials.

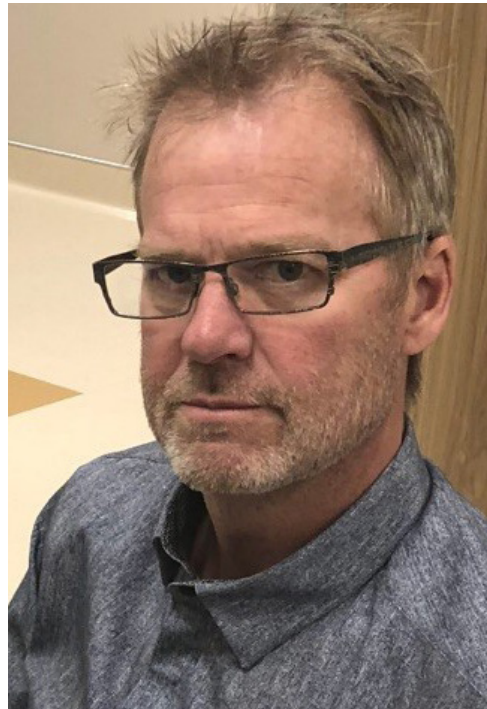
Member updates

- Dr. Gregory Samis 2016/2017 was honoured by Dean's Letter of Recognition for Undergraduate Education.
- Dr. M F Guimond is the Chief Examiner at the RCPS of Canada for Vascular Surgery.
- Dr. Paul Cante officially joined the Division of Vascular Surgery with a joint appointment in the Division of Trauma Surgery.
- Dr. Kenton Rommens R7 Successfully completed the Vascular Surgery Fellowship and went on to complete his Royal College Exams. Dr. Rommens was awarded a Helios Scholarship and will be attending the Advanced Aortic Surgery Fellowship at Memorial Herman University of Texas Medical Centre.
- Dr. Paul Petrsek's twelve years of leadership came to an end. Dr. Petrsek leaves behind a legacy that includes two state of the art hybrid operating rooms and a patient-centered case model that has vascular surgery patients all being looked after on the fifth floor of the east wing of the Peter Lougheed Hospital.

12,000 *outpatients visits
annually*

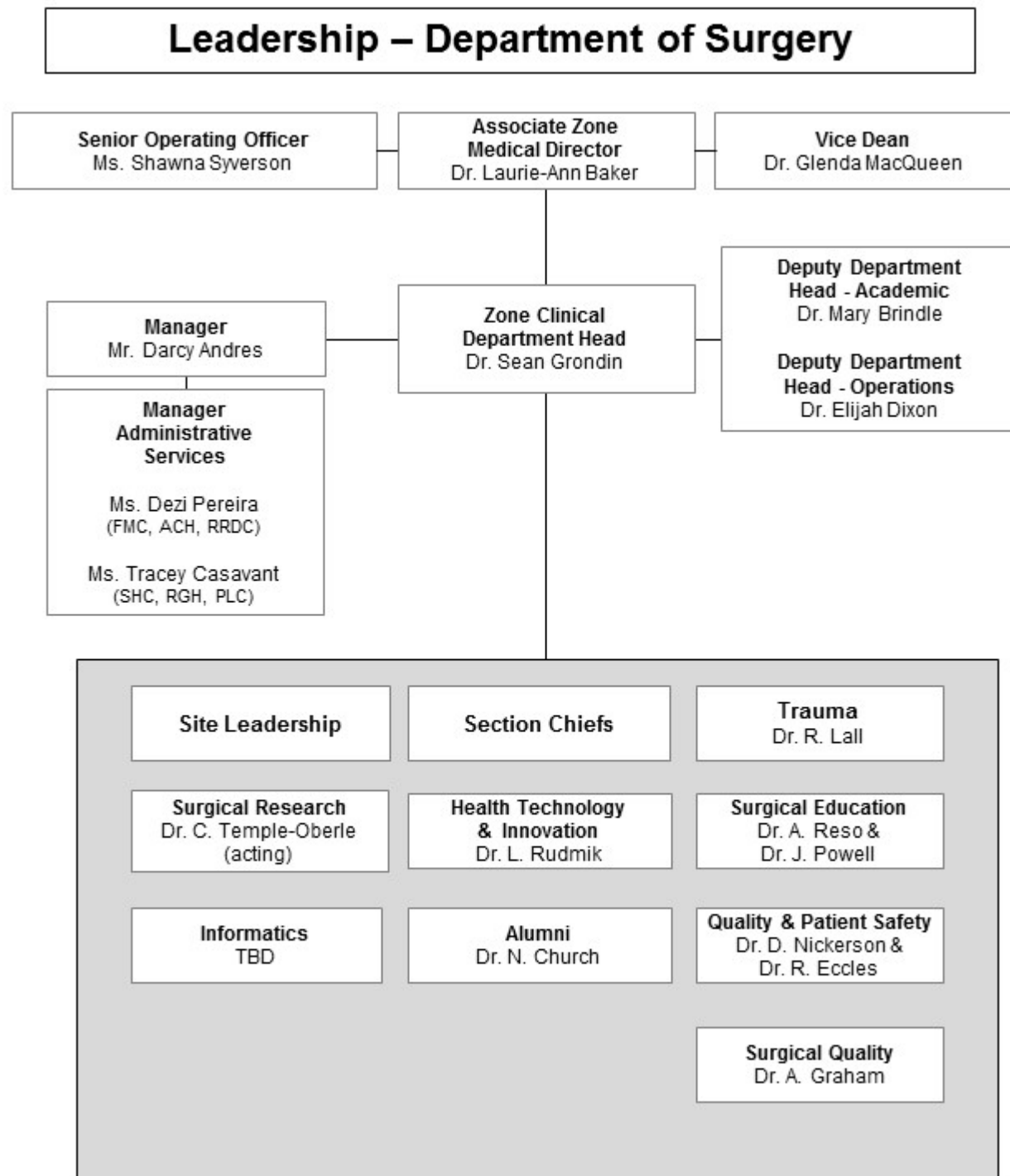
7
*surgeons
in the
Calgary
Zone*

900 *major vascular surgical
procedures*

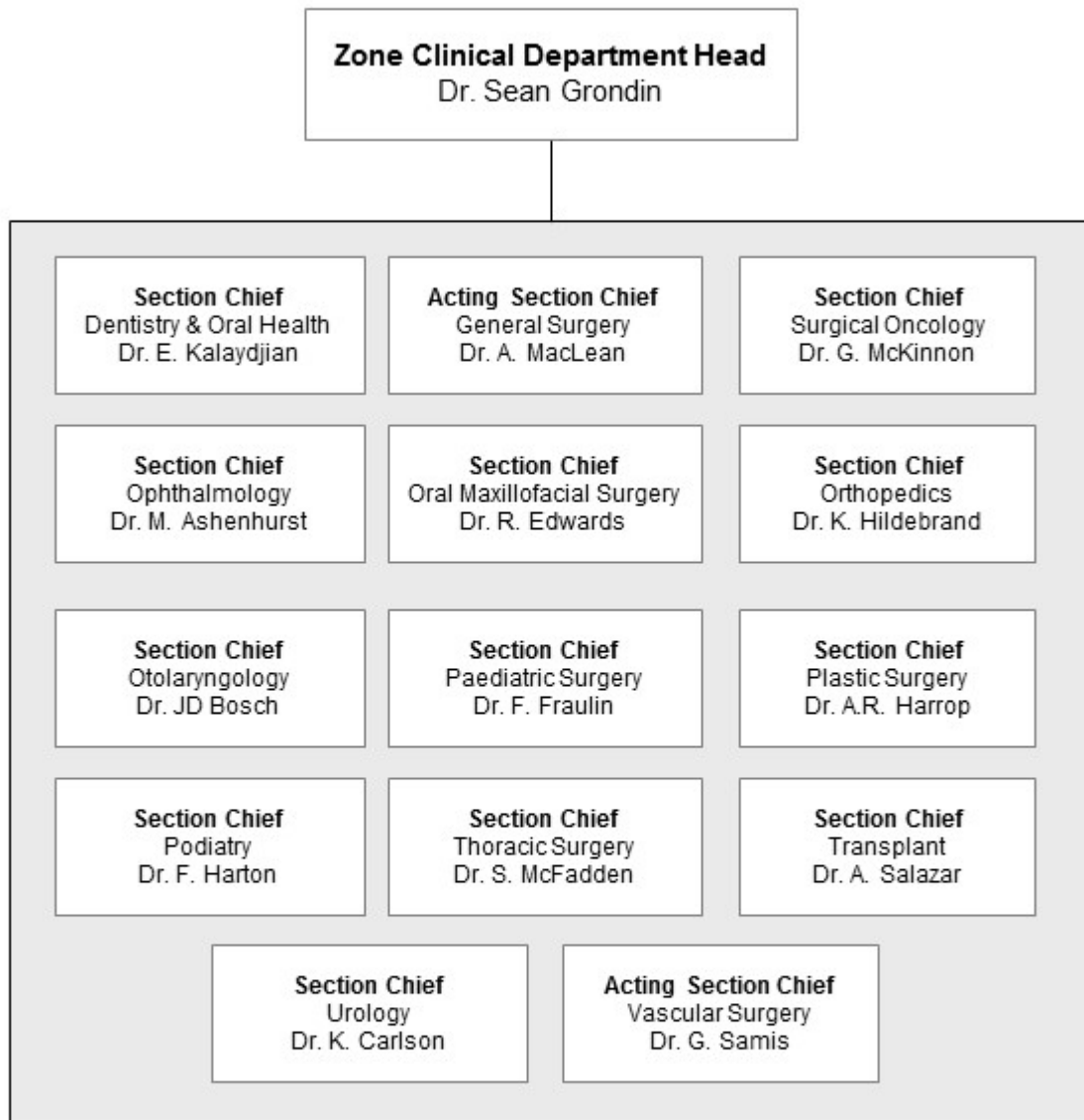


DR. GREGORY SAMIS
SECTION CHIEF OF VASCULAR SURGERY

ORGANIZATIONAL CHARTS

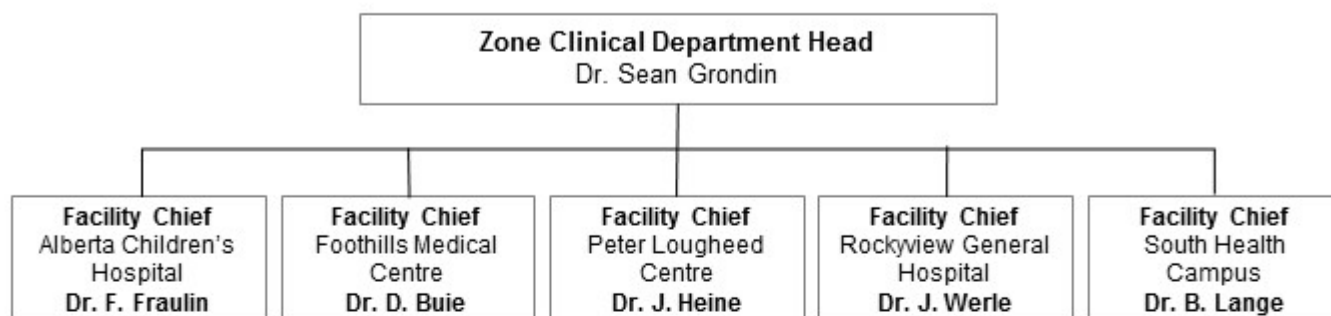


Section Chiefs – Department of Surgery



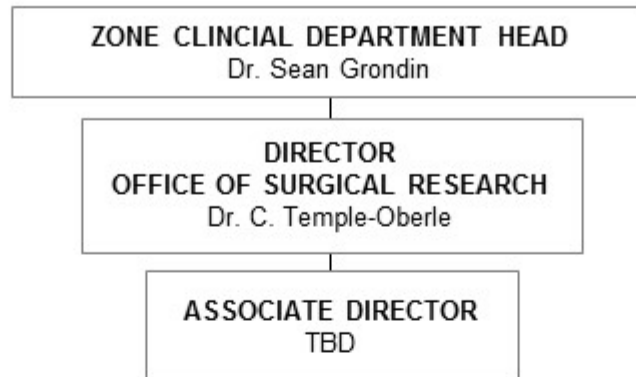
ORGANIZATIONAL CHARTS

Site Leadership – Department of Surgery



Alberta Children's Hospital <ul style="list-style-type: none"> • Dr. Frankie Fraulin, Facility Chief and Chair OR Committee • Dr. Kerryn Carter, Chief, Anesthesia • Ms. Leah Harburn, OR Manager • Ms. Jill Woodward, Director 	Foothills Medical Centre <ul style="list-style-type: none"> • Dr. Donald Buie, Facility Chief and Chair OR Committee • Dr. Duc Ha, Chief, Anesthesia • Ms. Myrna Trotchie, OR Manager • Ms. Holly Mackin, Director
Peter Lougheed Centre <ul style="list-style-type: none"> • Dr. John Heine Facility Chief and Chair OR Committee • Dr. Bronwyn Parkinson, Chief, Anesthesia • Ms. Danielle Assad, OR Manager • Ms. Val Marsten, Director 	
Rockyview General Hospital <ul style="list-style-type: none"> • Dr. Jason Werle, Facility Chief and Chair OR Committee • Dr. Chris Sims, Chief, Anesthesia • Mr. Derek Bley, OR Manager • Ms. Susan Reader, Director 	South Health Campus <ul style="list-style-type: none"> • Dr. Beth Lange, Facility Chief and Chair OR Committee • Dr. Loretta Olivieri, Chief, Anesthesia • Ms. Crystal Cunningham, OR Manager • Ms. Joanne Cabrera, Director

Surgical Research – Department of Surgery



ORGANIZATIONAL CHARTS

