



NEURO

Department of Clinical Neurosciences
2020-2021 Review



Cover photo

Superstar Rowan races down the halls of Alberta Children's Hospital with the help of Dr. Elizabeth Condcliffe's PONI Lab team and their TREXO robot.

Department Vision

Caring, Educating, Innovating. Together.

Department Mission

By building healthy teams, collaborating with patients, outstanding care providers, researchers, educators and health care administrators, the Department of Clinical Neurosciences will provide compassionate, equitable, and high-quality care to people dealing with neurological problems. While doing this, we will constantly strive to learn and to improve.

Department Goals

- Provide compassionate, timely and high quality care to patients and their families.
- Lead in neuroscience research.
- Build innovations in care delivery.
- Train the specialists and leaders of tomorrow.
- Flourish in a fulfilling collaborative work environment.
- Communicate transparently within and outside our organization.
- Measure and optimize patient outcomes.

Department of Clinical Neurosciences

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Message from the Department Head

Dr. Rajiv Midha

I'd like to start by thanking our faculty members, our trainees, our nursing colleagues, our administrative and support staff for their ongoing commitment in these difficult times.



Their professionalism and dedication has meant we continue to provide excellent patient care, we can research tomorrow's treatments, and we can mentor the next generation.

This work is now being shared with six talented new recruits to our department (see Page 3). We are thrilled to have you join us!

In recognizing the contributions of existing faculty,

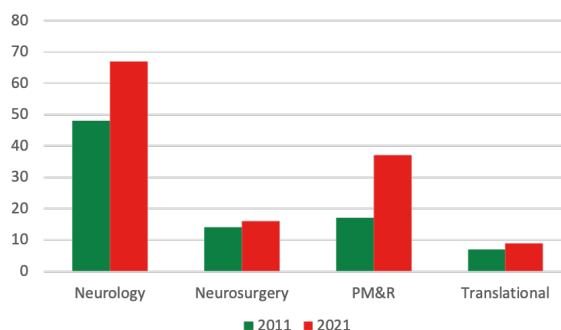
I'm pleased that 10 of our members were promoted this year. Congratulations to **Drs. Cooke, Menon, Pringsheim, Zhang, Almekhlafi, Busche, Koch, Jarvis, Sarna and Rosenegger**. All are very well deserved.

Normally, I would use this annual report to highlight events from the past year. Instead, I'd like to reflect on the past decade.

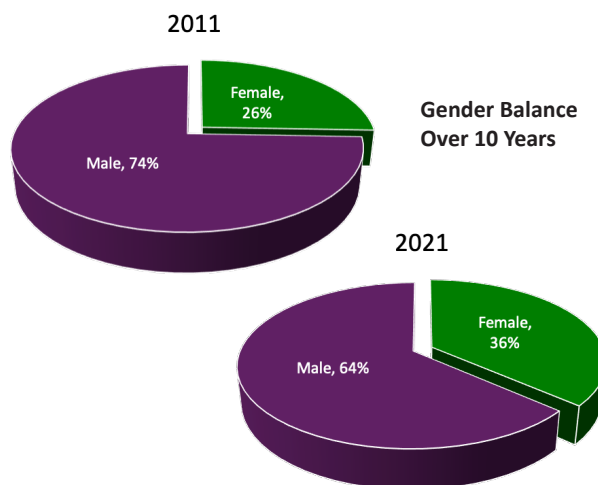
Next year will be the 10th anniversary of my appointment as department head—and a search for a new leader will commence. I am grateful to the stewardship of **Dr. Greg Cairncross** before me. His passion for excellence was a foundation upon which I have been able to build on. Next year will also be the 40th anniversary of the Department of Clinical Neurosciences, and we are grateful to our founders.

When I became department head in 2011, we had 86 members within the sections of Neurology, Neurosurgery, Physical Medicine & Rehabilitation and Translational Neuroscience. Today we are 129 strong—with significant growth in Neurology and PM&R.

Faculty Growth by Section



Over the years, we'd made progress on our gender balance. Though we have much work to do, 36 per cent of our faculty are female versus 26 per cent when I started my first term. Three of our six new additions are women.



Continued on Page 2

Neurologist awarded grant to expand trial of ALS drug

The Great ESCAPE: How Calgary doctors forged a new weapon against stroke

Calgary spinal neurosurgeons join stem cell transplant trials

Alberta's first diaphragm pacemaker recipient is breathing fine

Cumming professor using anti-seizure diet to drive world-class epilepsy research

COMMON ACNE MEDICATION OFFERS NEW TREATMENT FOR MULTIPLE SCLEROSIS

Paralyzed Calgary graduate walks across the stage to receive diploma

Noninvasive treatment option for Albertans with severe essential tremor

Study shows MRI can help remove DOUBT when diagnosing minor strokes

National Music Centre announces music therapy partnership

Researchers study Vitamin B3 as potential treatment for a deadly brain tumour

Continued from Page 1

I'm continuously reminded how these additions have strengthened our department—in our clinical work, in our world-class research; and in our training programs. There are too many headlines to keep track of them all!

These new members are the future of our department and I couldn't be more confident in their abilities to lead us to even greater success.

Our diversity is a huge strength and was evident at our recent department retreat. We may sometimes have differing points of view, but our Departmental Vision reflects how we address challenges: **Caring, Educating, Innovating. Together.**

It should come as no surprise that the Number 1 strength identified by our surveys and workshop was "collegiality."

Please enjoy our annual review—including accomplishments from the year, challenges we've faced, and metrics from our department

Rajiv Mishra

Dr. Rajiv Mishra
Professor and Head
Department of Clinical
Neurosciences

▼ Welcoming recent DCNS recruits at special event in June 2019.



RECRUITMENT AT DCNS

The Department of Clinical Neurosciences has been very fortunate to recruit a number of talented physicians and a nurse practitioner in 2020-2021.

Though we had fewer recruitment positions to fill this past year, these six additions will ensure we can continue to deliver excellent care for our neurology and physiatry patients.

It should be noted that five of our six recruits this year were prior DCNS residents. This is a testament to the quality of our department's residency programs.



Ellen Chan

Nurse
Practitioner



Vikram Karnik

Neurologist



**Prin
Chitsantikul**

Neurologist



Rehana Murani

Physiatrist



**Aravind
Ganesh**

Neurologist



Jacqui Stone

Physiatrist

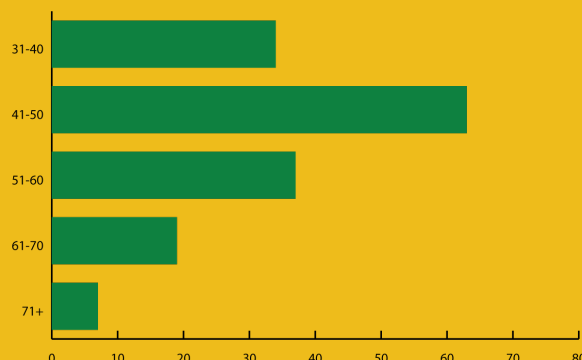
MEMBERSHIP

Our department continues to grow in its three clinical areas: Neurology, Neurosurgery and Physiatry.

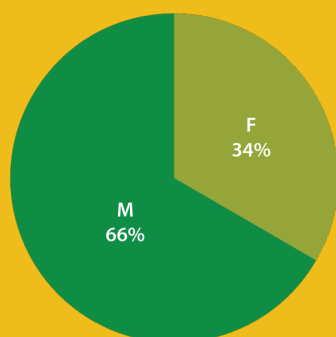
We have 127 members in our department and their roles are roughly split between Clinical/Adjunct, Major Clinical and GFT.

We celebrate equity, inclusion and diversity in our ranks and strive to improve our hiring, promotion and leadership processes across the department.

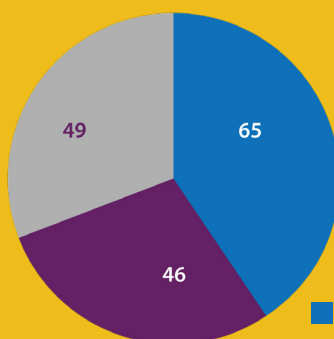
Age Distribution



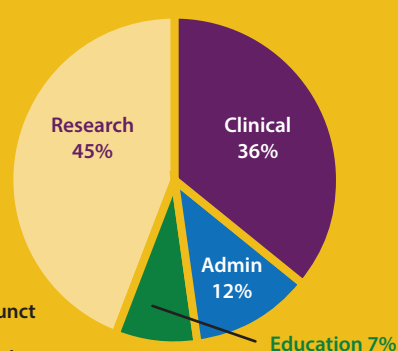
Gender 127 Faculty Members



Appointments to Faculty in DCNS



GFT -Activity Profile (49 FTE in DCNS)

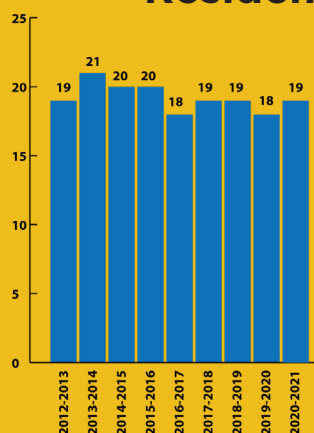


■ Clinical/Adjunct
■ Major Clinical
■ GFT

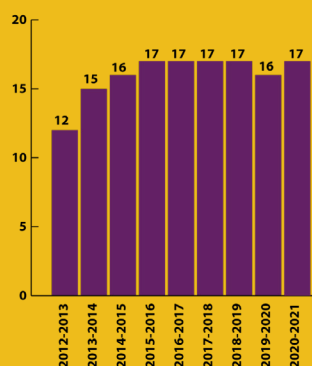
Source: Cumming School of Medicine

Resident Education by Section

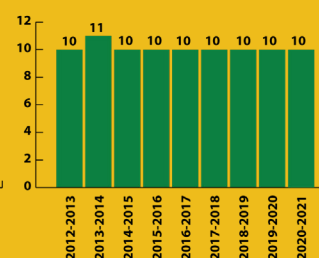
The Department of Clinical Neurosciences is exceptionally proud of our three residency programs that are home to 46 talented residents doctors.



Neurology



Neurosurgery



Physical Medicine
& Rehabilitation

ACCOMPLISHMENTS

There were numerous highlights in the past year—in the areas of promotions, leadership changes, departmental engagement, and research.

Congratulations to **Dr. Lara Cooke**, **Dr. Bijoy Menon** and **Dr. Tamara Pringsheim** on their promotions to full professor. **Dr. Yunyan Zhang** was promoted to adjunct research professor. Our associate professor ranks were joined by **Dr. Mohammed Almekhlafi**, **Dr. Kevin Busche** and **Dr. Marcus Koch**. **Dr. Scott Jarvis** and **Dr. Justyna Sarna** were promoted to clinical associate professor. **Dr. Lisa Rosenegger** was promoted to clinical assistant professor.

Physical Medicine and Rehabilitation saw changes in both section and residency leadership. **Dr. Sean Dukelow** is our new section leader and **Dr. George Francis** has taken on the residency program. We cannot thank enough **Dr. Christine McGovern** and **Dr. Gentson Leung** for their tireless work in their roles. Their dedication over the years has ensured the section of PM&R has grown from strength to strength.

Our department recently held our first in-person retreat since 2019. The full-day workshop at Hotel Arts explored a number of subjects, including a Strengths, Weaknesses, Opportunities and Threats assessment, along with a focus on priorities of the department. Collegiality, collaboration, depth of expertise and residency programs were among the strengths identified. Our priorities included: fostering innovation, attracting strong and diverse faculty and trainees, maintaining the AMHSP and

supporting interdisciplinary care. Thank you to all who attended.

Recognition:

- **Dr. Michael Hill** was elected a Fellow of the Royal Society of Canada in 2021. Dr. Hill was also recognized by the Cumming School of Medicine's Department Heads Committee and Dean Meddings with the Smith Distinguished Achievement Award.
- **Dr. Dan McGowan** was appointed as Medical Leader for the Community Rehabilitation program in the Community Health portfolio.
- **Dr. Greg Cairncross** was recognized in Oct. 2021 with a Alberta Lifetime Contribution in Cancer Research Award.

Research:

Among the research undertaken by members in 2020-2021 was important research into Vitamin B3 as a potential treatment for glioblastoma.

Faculty members **Dr. Paula de Robles** and **Dr. V. Wee Yong**, along with PI collaborator Dr. Gloria Roldan Urgoiti, began a Phase 1-2 trial looking at vitamin's effect on the IDH-wildtype.

The researchers enrolled their first patients in April 2021 and are initially looking at the safety of the drug, followed by whether it has the potential to boost the body's immune system to fight this devastating and currently incurable brain tumour.



▼ Trial collaborators Dr. Paula de Robles, Dr. Gloria Roldan Urgoiti and Dr. V. Wee Yong outside the Tom Baker Cancer Centre.

CHALLENGES

C COVID-19 has affected our clinical programs, our teaching and the research that drives our department forward.

Outpatient visits were delayed due to site restrictions; patients hesitated about visiting acute care sites; and our faculty pivoted to virtual visits where they were appropriate.

Along with outpatient metrics, hospital discharge data shows that we've made progress over 2019-2020 but we're still well below pre-COVID levels.

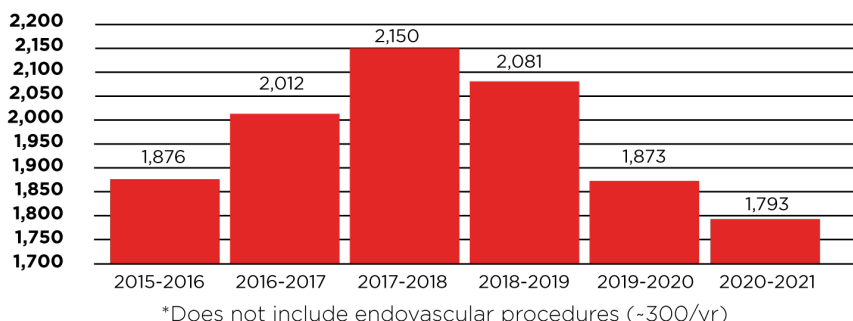
Even more dramatic was the fall in surgical OR cases. At Foothills Medical Centre, there were 1,793 cases in 2020-2021 compared to 1,873 in the prior year and over 2,000 in the pre-COVID year. (See chart at right.)

Also revealing was the increase in urgent OR cases (up to 39 per cent from 28 per cent) and the corresponding reduction in elective cases.

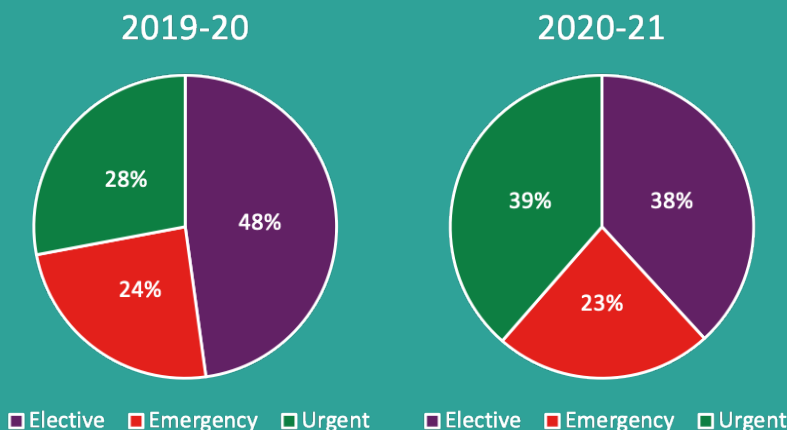
At the start of COVID, research projects were complicated by UCalgary lab access. Later, clinical trials were put on hold when visitors were restricted from visiting FMC and other AHS sites. In some cases, research funding was put at risk due to these delays. Thank you to our faculty and researchers for their perseverance during these unpredictable times.

Outside of COVID, it should be noted that recruitment of clinical faculty has been especially difficult in the current fiscal and political environment. Candidates are choosing to accept other positions rather than relocate to Alberta.

Neurosurgery OR Cases at FMC



OR Case Categories at FMC



▲ Neurosurgery resident Dr. Madeleine de Lotbiniere-Bassett assists Dr. Mark Hamilton in the operating room.

EQUITY, INCLUSION & DIVERSITY

The makeup of our department has changed dramatically over its 40-year history.

Through our actions, policies and recruitments, we define ourselves and our commitment to equity, inclusion and diversity.

We hold Health Equity Rounds on a quarterly basis to engage department members on a range of topics, including a recent presentation on the "intersectionality of religion and health care."

Difficult case are presented and there has been significant engagement from members during the discussion.

We intend to continue Health Equity Rounds as a regular part of our Grand Rounds schedule in 2022.

CLINICAL **NEURO** SCIENCES

GRAND ROUNDS

Neurology, Neurosurgery, Physical Medicine and Rehabilitation, Translational Neuroscience

ZOOM ONLY 08:00-09:00 Case Presentations 09:00-10:00 Guest Speaker

Friday, June 11th, 2021

Health Equity Rounds: The Health of Indigenous Peoples



Danah Abo AISamh MD
PGY3, Adult Neurology
Department of Clinical Neurosciences



Warren Michael
Indigenous Coordinator
Cancer Care Alberta



Lara J. Cooke MD MSc FRCPC
Professor
Section Head of Neurology
Department of Clinical Neurosciences

For physicians recording their hours, visit: cumming.ucalgary.ca/departments/dcns/attendance

Click to join DCNS Grand Rounds on Zoom

<https://albertahealthservices.zoom.us/j/99354717491?pwd=Nk1GS3Fob1ZuK1JlRmJxeltFpT09>
Meeting ID: 993 5471 7491 Passcode: 127805
Audio-only phone line: +1 587 328 1099

CLINICAL **NEURO** SCIENCES

GRAND ROUNDS

Neurology, Neurosurgery, Physical Medicine and Rehabilitation, Translational Neuroscience

ZOOM ONLY 08:00-09:00 Case Presentations 09:00-10:00 Guest Speaker

Friday, February 12th, 2021

Health Equity Rounds

"Introduction to Health Equity Rounds - A Case-Based Approach to Improving Health Equity in DCNS"



Dr. Aravind Ganesh
Stroke and Cognitive Neurology Fellow
Department of Clinical Neurosciences



Dr. Catherine Veilleux
PGY1
Neurosurgery Residency Program

Please click for post-rounds evaluation form

For physicians recording their hours, visit: cumming.ucalgary.ca/departments/dcns/attendance

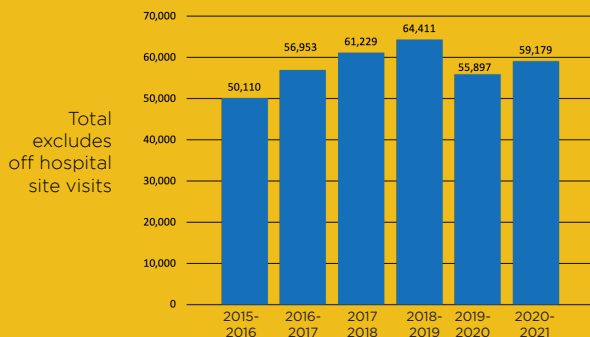
Click to join DCNS Grand Rounds on Zoom

<https://albertahealthservices.zoom.us/j/99354717491?pwd=Nk1GS3Fob1ZuK1JlRmJxeltFpT09>
Meeting ID: 993 5471 7491 Passcode: 127805
Audio-only phone line: +1 587 328 1099

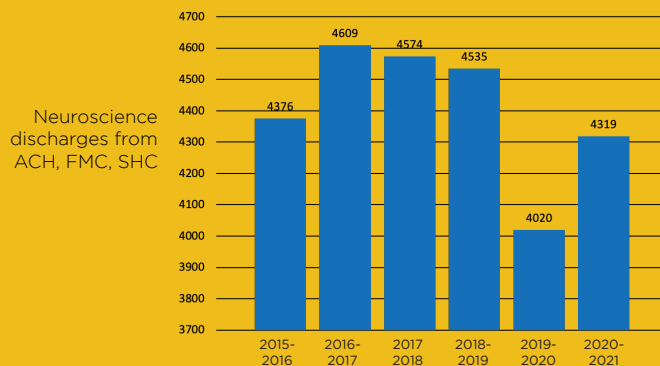


METRICS: CLINICAL

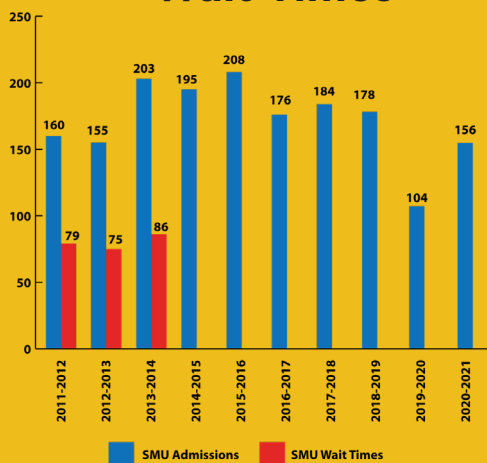
Total Outpatient Visits



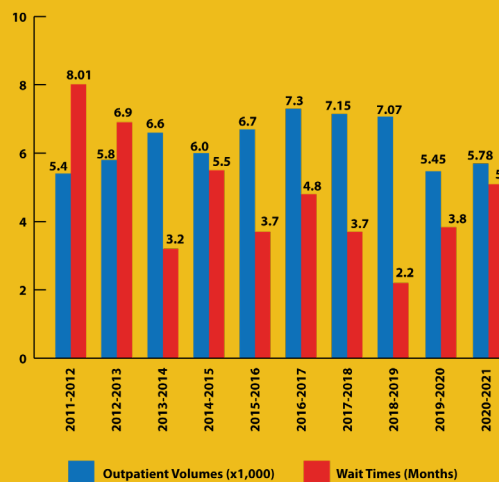
Total Discharges



SMU Admissions/Wait Times

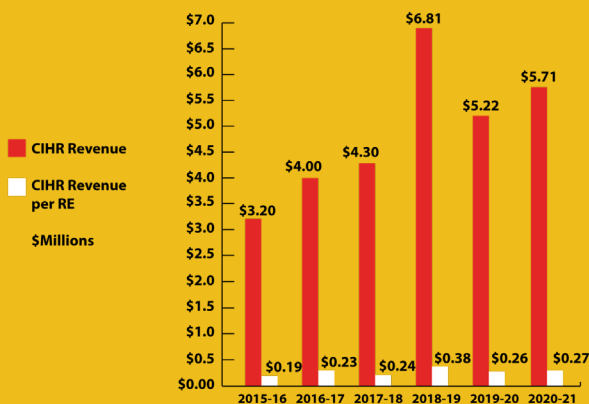


EMG Outpatient Volumes/Wait Times



METRICS: ACADEMIC

Department CIHR Revenue



DCNS Publications per FTE

