

- **Division Director's Column**
- **Featured Article – Dr. Kasia Czarnecka**
- **Resident Training Program Alumni – Dr. Debra Morrison**
- **Clinical Research Fellowship Alumni – Dr. Luigi Taranto**
- **Program Director's Report – Dr. Chris Li**
- **Fellowship Director's Report – Dr. Cecilia Chaparro**
- **Research Director's Report – Dr. Jane Batt**
- **Awards, Honours, Grants and News**

DIVISION DIRECTOR'S COLUMN – Dr. Douglas Bradley

COVID

In my last column of August 2020, I outlined the many adverse effects that COVID-19 has had on our clinical, teaching and research activities. In this column, I would like to highlight ways in which some of our trainees and faculty have been doing something about it.

A recent graduate of our residency program (2018), Dr. Hashim Khan, has, in his spare time, made significant contributions to counteracting the COVID-19 epidemic as it affects Muslim and South Asian communities across Canada, and especially in Peel region. These communities have suffered a disproportionate rate of COVID-19 compared to the general population. For example, as of December 10, Peel region had 331 active COVID-19 cases per 100,000 people compared to only 193 in Toronto. In Peel, people of South Asian descent make up 32% of the population but 52% of COVID-19 cases. Reasons for this include people working in crowded factories and warehouses, attending large religious gatherings, living in crowded conditions often with multi-generational households.

To address this situation, Dr. Khan formed the Canadian Muslim COVID-19 Task Force in March 2020. The task force has over 40 members including physicians, as well as community and religious leaders. Initially, the task force engaged religious leadership to suspend large religious gatherings. Subsequently, the task force developed COVID-19 preventative guidelines along with community education, health promotional resources and a social media campaign that was translated into several languages. Initiatives included doorstep food deliveries, public health messaging, refresher courses for physicians on infection control and treatment of COVID-19, and PPE drives. They also created a COVID-19 information website (www.cmcovidtf.com).

The task force also shared its anti-COVID-19 materials with provincial public health bodies across the country, which helped to



inform some of their guidance. In addition, in light of the over representation of South Asians amongst those testing positive for COVID-19, it helped spawn the development of the South Asian COVID Task Force in which Dr. Anju Anand participates. Dr. Khan is to be commended for his contributions to this very worthy cause.

Regarding outpatient care, Drs. Jolene Fisher and Kasia Czarnecka have been working in UHN's COVID-19 "virtual" outpatient clinics where they have spoken to a wide range of patients. During the first wave the majority of patients were 50 years and older, however during the second wave, more are under the age of 40 years. The majority of patients have been frontline and/or essential workers, such as teachers, grocery clerks, and healthcare and factory workers. Disease severity has ranged from asymptomatic to eventual respiratory failure. The COVID clinic offers close monitoring of high-risk patients who are sent oximeters for home saturation monitoring. Understandably, patients are often scared and find it reassuring to be monitored so closely by experts.

Regarding inpatient care, at Sunnybrook, Drs Anu Tandon, Lee Fidler, Andrea Gershon, and Yaj Shukla have been attending on the COVID-19 ward. This provided them with the opportunity to see the terrible impact this pandemic has had both on patients and their families. Since family members are unable to visit their loved ones in hospital, members of the COVID-19 team phone them on a daily basis and experience the anguish they felt while trying to provide some solace. Because patients admitted to the COVID-19 ward are mainly elderly, many deteriorate rapidly and succumb to the infection. In such situations, the COVID-19 team has arranged for a family member to be at the bedside. Thanks to the work of IPAC at the hospital, COVID-19 team members felt safe and supported.

Regarding critical care, in addition to leading UHN's COVID-19 response team, Dr. John Granton has taken care of many patients with COVID-19 in the TGH ICU. Many patients in this ICU were transferred from elsewhere due to disease severity, especially if extra-corporeal lung support (ECLS) was being considered, since UHN is a provincial ECLS resource. The commonest forms of life-threatening disease are pneumonia and ARDS. Other presentations include septic shock, stroke, cardiac disease and thrombotic complications. Treatment of ARDS remains supportive using a lung-protective ventilator strategy and dexamethasone. During the first wave, there was a sense of panic and uncertainty in the ICU. Frightening stories from European ICU colleagues suggested that this pandemic could overwhelm our health care system. Indeed, for the first time in the post-world-war II era, hospitals faced shortages of PPE that threatened ICU staff and patient safety. Changes in practices and policies occurred at a frantic pace as staff pivoted in response to new information and challenges. Relief came as COVID-19 ICU admissions fell to zero during the summer, but with the recognition that this represented not only discharges, but that some had lost the battle. The ICU team recognized that restrictions on visitors and fear, then and now, cause unprecedented suffering and anxiety among family members.

During the second wave, ICU staff seem more complacent, perhaps because of familiarity with the foe combined with COVID-19 fatigue. However, the second wave may be more severe as cases rise to daily highs, and Dr. Granton and his colleagues brace for what comes next. However, he remains inspired and confident that they will be able to weather the next phase. Nevertheless, COVID-19 has been a burden on front-line workers in terms of burnout and distress.

I am very impressed with and proud of all the contributions members of our Division have made to stem the local COVID-19 epidemic and praise their efforts. Hopefully, with the roll-out of the amazingly rapidly developed COVID-19 vaccines, we will have another ally in our struggle against COVID-19.

As you are all aware, two of our dear and esteemed colleagues, Drs. Peter Webster and Noe Zamel, passed away on the same day, October 7, 2020. It is with deep sorrow, that none of us could attend their funerals in person to help their families through these ordeals. Peter and Noe had a great influence on our Division and will be remembered for their contributions.

I would like to end my column on an upbeat note by congratulating Dr. Chris Li and members of the Residency Program Committee for coming through the Royal College accreditation successfully, and indeed with flying colours.

I would like to wish you and your families a Very Happy Holiday Season, and a Healthy and COVID-free New Year!

FEATURE ARTICLE – Dr. Kasia Czarnecka

INTERVENTIONAL PULMONOLOGY

The development of Interventional Pulmonology (IP) has enhanced Respiriologists' ability to diagnose thoracic diseases. IP includes diagnostic techniques such as endobronchial ultrasound-guided transbronchial needle aspiration (EBUS-TBNA), a new gold standard for lung cancer staging, radial probe EBUS and advanced navigational techniques for diagnosis of lung nodules. It also includes treatments such as cancer palliation, management of benign and malignant pleural effusions using indwelling catheters or pleurodesis, and treatment of severe asthma and COPD via bronchial thermoplasty and endobronchial valve placement, respectively.

Mastery of the numerous IP techniques generally requires a full year of fellowship in centres that specialize in IP. At the University of Toronto (UofT), the first IP program was started at Toronto General Hospital (TGH) by Dr. Kazuhiro Yasufuku, a Thoracic Surgeon, and world-renowned pioneer, who spearheaded the development of EBUS-TBNA. This program has offered a comprehensive, one-year fellowship to Respiriologists and Thoracic Surgeons since 2010. Thirteen fellows have completed this program, six of whom have established IP programs in Canada, Israel, Japan and Australia. While the majority of IP programs are overseen by Respiriologists, the TGH IP program is run primarily by Thoracic Surgeons. Trainees work with nine thoracic surgeons and myself, to master IP skills.

The IP program continues to evolve across the U of T. In 2011, Dr. Harvey Wong completed an IP fellowship at the University of Ottawa following which he returned to Sunnybrook Health Sciences Centre (SBHSC) as a clinical associate. Subsequently, he started the malignant pleural effusion clinic, which is the main site for Respiriology residents to learn pleural procedures. Subsequently, Dr. Wong started EBUS at both SBHSC and St. Michael's Hospital. In 2017, Dr. Christine McDonald, a graduate of the UofT Respiriology and IP training programs, joined Dr. Wong at SHSC to strengthen its IP program. This opened an opportunity for clinical and research collaboration in IP between TGH and SHSC. The SHSC program has now expanded to include a one-year fellowship in IP for Respiriologists that will enhance IP training opportunities across the U of T.

Clinical research is an integral part of the IP program. At TGH, this includes demonstrating the improved cost-effectiveness and safety of EBUS over mediastinoscopy for lung cancer staging, as well as development of new EBUS techniques and their formal health technology assessments to advance management of thoracic diseases in a minimally invasive way. Work arising from this research has been presented at many prestigious international conferences and published in high impact journals.

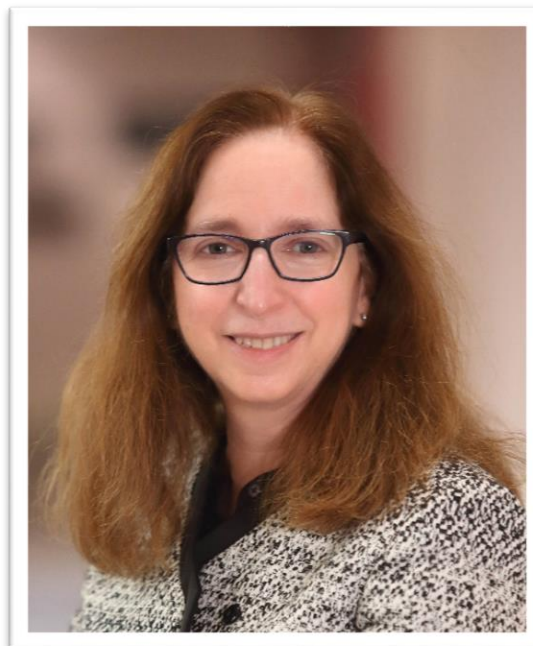
From the Respiriology training program perspective, whereas IP was identified as a weakness by the Royal College accreditation team in 2015, it was identified as a strength by the December 2020 accreditation team, thanks to the hard work and dedication of our IP specialists in Respiriology. The development of clinical and research programs in IP at the U of T will undoubtedly attract very high-quality trainees in both Respiriology and Thoracic Surgery, to further enhance our clinical, educational and research capabilities as well as our international stature.



RESIDENT TRAINING PROGRAM ALUMNI – Dr. Debra Morrison

It's hard to believe it has been thirty years since I, and my fellow trainees Liz Tullis and Brent Winston, completed the University of Toronto Respiriology Training Program in 1990. A one-year Sleep Fellowship followed at the University of Calgary, then on to Halifax, where I am a Staff Respiriologist and Clinical Director of the only Sleep Laboratory in Nova Scotia at the Queen Elizabeth II Health Sciences Centre, and Professor of Medicine at Dalhousie University.

Inspiring role models, amazing mentors and great teaching are the hallmarks of my time at the University of Toronto. The University of Toronto's training program gave me the skills I needed for an academic practice. I have been involved in Dalhousie's undergraduate curriculum development as Head of both the Metabolism 2 Unit and Respiriology Component for several years. I am now focused on postgraduate training as a member of the Respiriology Training Committee and co-developer of the Sleep Fellowship Program. I have been actively involved in guideline development with the Canadian Thoracic Society, which has kept me connected with my colleagues across Canada. I have maintained ties with University of Toronto through involvement in the CANPAP and ADVENT-HF trials led by Dr. Doug Bradley.



In my spare time, I enjoy travel and adventure with my two children (Michaela, age 25 and Ethan, 21). They will both be graduating from university this year. Ava, our Yorkshire Terrier, is a special member of the family. After a 35 year hiatus, I have returned to curling, which is great fun.

CLINICAL RESEARCH FELLOWSHIP ALUMNI – Dr. Luigi Taranto



I completed my Sleep Fellowship at the University of Toronto with Dr. Douglas Bradley in 2011. In Toronto, I studied the relationship between autonomic nervous system activity and subjective sleepiness in patients suffering from obstructive sleep apnea (OSA). I found that the higher the sympathetic nervous system activity, the lesser the degree of daytime sleepiness. After the fellowship, I completed my training in respiratory medicine in Italy, at the University of Brescia, and worked for three years in a busy sleep clinic with hundreds of OSA patients.

Looking for more clinical research experience, in 2015 I joined Dr. Andrew Wellman's sleep lab at Harvard in Boston to develop a pharmacological treatment for OSA targeting specific pathophysiological traits, with particular emphasis on upper airway dilator muscle activity.

Exciting positive findings from the drug we are testing led to the creation of a start-up company (Apnimed) in 2017, that is pursuing FDA approval of the first pharmacotherapy for OSA. As the number of research trials at Apnimed increased, I joined the company as Medical Director in February 2020, to continue my research career in industry

Besides my research, I am a passionate soccer coach for my daughters Giulia (11) and Francesca's (9) teams. My wife Paola and I love to travel and hike, and still remember the beautiful landscapes of Algonquin Park in the fall. The experience in Toronto shaped our lives in so many ways, both professionally and personally.

Program Director Report – Dr. Chris Li

Accreditation 2020

I am very pleased to communicate the findings from our December 1 Accreditation Site Survey. At my exit meeting, the survey team indicated that they will be recommending the following status:

Accredited program with follow up at next regular review (in 8 years)
Areas for improvement: none identified
Leading practices/innovation: journal club with twitter component and opportunity for residents to publish their critical appraisals

The surveyors commented on:

- A very satisfied resident group
- A very engaged faculty group (one of the best-attended faculty meetings they have seen)
- A healthy relationship between divisional leadership and the program
- Effective programmatic quality improvement processes
- Excellent support for resident research
- A touch of elbow grease from the program director



I am extremely grateful to everyone who contributed to this process, both on the day of the review and in the time leading up to it. Our residents continue to inspire us, and are the reason we do what we do. They demonstrated to the surveyors that they are fully engaged partners in making their program better. It was clear that our incredible faculty are the heart of our program, and our amazing program committee its soul. As always, I am indebted to Rhiannon Davies for her tireless work on this endeavour, and to Dr. Doug Bradley for his unreserved support.

In the coming months, the Royal College accreditation committee will be reviewing the surveyor's recommendations and will issue a formal report with a final accreditation decision, but the feedback from the exit meeting was an unqualified endorsement of our program.

Competence by Design (CBD) Update

The nationwide launch of CBD for our specialty will be proceeding, on the new timeline, in July 2021. We will be pilot-testing some EPA assessments in the spring of 2021, in preparation for a July 2021 launch. Stay tuned for some upcoming faculty development offerings in the coming months: Respirology Grand Rounds from Dr. Ambrose Lau (Competence Committee Chair) and myself, as well as the much-anticipated re-release of some riveting instructional videos on EPAs and Elentra.

Fellowship Director Report – Dr. Cecilia Chaparro

It is hard to believe it is now mid-December; harder still to believe that after 9 months we are still in the middle of the pandemic preparing for a very unusual winter break.

Despite this current situation our fellows have come from near and far to continue their education and research. We always hope they get a chance to travel and experience more of the whole of Canada, but, unfortunately, this year that it has been impossible! Despite this, our fellows' enthusiasm, hard work and willingness to help wherever needed has been exceptional, and it is really very much appreciated.

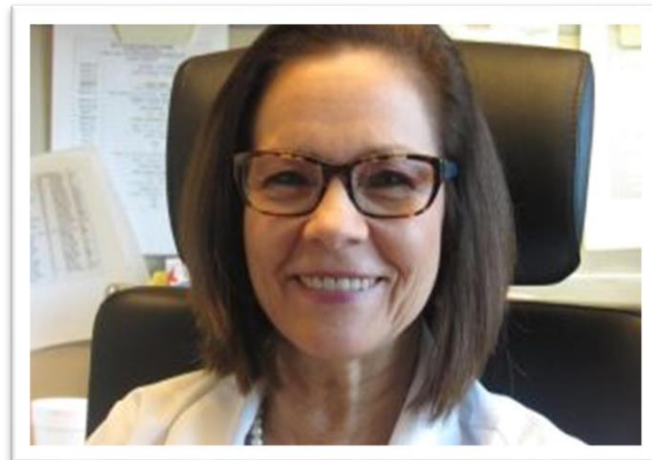
To all our Fellows, I want every one of one of you to know that we are here to help whenever you need it, so please count on us when you need support. We also encourage you to take some time off to enjoy a peaceful break. We hope you stay connected with your families and friends as we go through this new phase of the pandemic.

Soon, we hope to be able to meet in person, and until then, I thank you all for your commitment to your fellowships!

HAPPY HOLIDAYS!

Dr Cecilia Chaparro

Director of Fellowship Programs, Respiriology, UofT.



Research Director Update – Dr. Jane Batt

Pettit Block Term Grant Awardees, November 2020

Lee Fidler – “Epidemiology, health care utilization and mortality in rheumatoid arthritis interstitial lung disease”

Jolene Fisher – “Development of a prognostic score for progressive fibrotic interstitial lung disease”

Samir Gupta and Janet Yamada – “Barriers and enablers to referrals and uptake of lung function testing for asthma and COPD in primary care”

Stephen Juvet, Tereza Martinu and Jeff Man - “Role of endothelial cells in pulmonary hypertension and allograft vasculopathy”

HONOURS, AWARDS, GRANTS

Jane Batt and Kieran McIntyre were the winners of the SMH, Department of Medicine, Priority Grant

Jane Batt, was also winner of the St Michael’s Hospital Angel’s Den, People Choice Award, and, The Keenan Legacy Award for Biomedical or Translational Research.

Cecilia Chaparro is the winner of the Canadian Society of Transplantation Clinical Recognition Award for 2020 for her exceptional work in lung transplantation particularly as it relates to cystic fibrosis.

Chung-Wai Chow, Clodagh Ryan, Aman Sidhu and Joyce Wu were awarded the 2020 MSH UHN AMO Innovation Fund Competition for their project: "Home monitoring of lung function following lung transplant using novel technologies".

Chung-Wai Chow (PI) with co-investigators Robert Swartz, **Clodagh Ryan**; Micheal McInnis and Miranda Kirby, have received a 3-year National Institutes of Health grant for their project "Electronic cigarette use and alveolar macrophages: a preliminary study." **Chung-Wai Chow** has also been awarded a CIHR grant, for her project "Vaping and asthma - a study on short and long-term health effects of vaping among Ontario youths and young adults with asthma." In addition, **Chung-Wai Chow**, along with **Clodagh Ryan**, Michael Chaiton, Hui Peng, and principal applicant Robert Schwartz have been awarded a CIHR grant for research on, "Respiratory effects of nicotine and THC E-Cigarettes"

Andrea Gershon is the recipient of this year's William J. Sibbald Mentorship Award, from SHSC.

Hattie Liu, Richard Horner 's laboratory manager is this year's recipient of the Faculty of Medicine's Staff Impact Award for Service in a Laboratory Research Environment.

Andrew Kouri was awarded a CIHR Health Research Training Fellowship, entitled "Exploring the influence and perspectives of older adults in the development and testing of mobile health interventions in airways disease".

Kieran McIntyre is the winner of the SMH Angel's Den COVID19 Award. In addition, he won the SMH, Robert H. Hyland Teacher of the Year Award for 2019-2020.

Shane Shapera won the UHN/SHS, Department of Medicine, Teacher of the Year Award for 2019- 2020.

John Thenganatt won the Wightman-Berris Academy Individual Teaching Excellence Award in the postgraduate category for 2019-2020

Harvey Wong is the recipient of this year's Pre-Clerkship Teaching Award at SHSC.

NEWS

Christie Lee has been appointed Interim Site Director for Critical Care at SHS.

Lianne Singer has been appointed Director of the Division of Respiriology, for UHN/SHS, effective September 1, 2020. Congratulations to Dr Singer.

***We wish everyone, their families and friends a
Happy Holiday Season!***



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