



## Clarence Guenter

### *Division Head*

1972–1978

Clarence Guenter has always been a man in search of opportunity. Born in Saskatchewan, he hopped one province east to pursue his medical degree at the University of Manitoba, getting his MD in 1961. Guenter stayed on in Winnipeg for additional postgraduate training, including research training in the respiratory laboratory of Dr. Reuben Cherniack.

Guenter was recruited to the University of Oklahoma in 1967 where one of his tasks was to build their respiratory diseases specialist training program. There were few role models at the time and even less specialized equipment, so it really was a case of inventing the wheel. Medical intensive care units were just emerging. Ventilators were primitive and new technologies like automated lung function tests and quick blood gas analysis, were still in development.

In 1972, Guenter returned to Canada with an even bigger task: help the University of Calgary's new medical school grow into a reputable program. The school was new, the hospital just built and hardly anyone in the country's medical community believed it would survive.

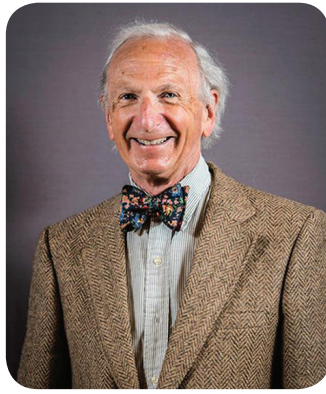
When he arrived, Calgary's medical school was still lacking a complete undergraduate curriculum, despite already having students in the program. It also needed a more robust postgraduate Internal Medicine curriculum along with clinical laboratories, an ICU, outpatient clinics and a research program. Guenter and his colleagues had much to do.

Amidst it all, Guenter was charged with establishing the school's Respiratory Medicine Division and securing its Royal College approval to give legs to the division's training program. With the help of Dr. David Shaw and a hot shot new recruit from Montreal, Dr. Bill Whitelaw, the team succeeded in their quest. The University of Calgary's Pulmonary Training Program was approved in 1978. In the meantime, Guenter had also written the textbook *Pulmonary Medicine*, which became the foremost resource for specialists to use in preparation for their exams.

One interesting challenge had nothing to do with writing textbooks or creating medical programs. During his early years in Calgary, Guenter put forward a motion to the university's Medical Faculty Council to abolish cigarette smoking within the Medical School buildings. While it may seem like an open and shut case these days, the debate at the time was intense. The Professor and Head of Pathology, a smoker himself, claimed the science clearly established that cigarette smoking was not a health hazard. The motion failed.

Guenter's career also includes the role of president of the Canadian Thoracic Society (1975–76) and in 1984, he became the only Canadian to be elected president of the American Thoracic Society. At the University of Calgary, Guenter served as head of the Division of Respiratory Medicine, then head of the Department of Medicine, and eventually as President and CEO of the Foothills Hospital. He would go on to become Director of the Faculty of Medicine's International Health Exchange Programs.

Guenter has been semi-retired since 1993, allowing him to be involved in health care projects and development in Canada and abroad. In 2010, he was awarded the Order of Canada for his lifelong commitment to improving healthcare and training in Canada and internationally.



## Bill Whitelaw

### *Division Head*

1978–1997

Medicine was not a career Bill Whitelaw considered when he started an honours physics degree at UBC in 1959 despite having a father who was a leading Vancouver internist and a professor of medicine. After two years, Bill transferred to the University of Toronto, following his parents when his father accepted an academic position there. In his last year of physics he decided to apply to medical school, eventually selecting McGill because he had never lived in Montreal.

During his third year of postgraduate medical training, Whitelaw applied for an international assistance program that McGill started in Kenya. He lost out to future medical leader, Peter Paré, but the idea of using his medical skills in a developing country had already grabbed hold. Together with his wife, Jenny, they went through the New York Times Almanac's summary of almost every country in the world. Their top pick was Uganda, although they had no idea if there was work there or how to find it.

Jenny was the Dean of Medicine's executive assistant at the time. The Dean overheard her telling colleagues what she and her third-year internal medicine resident husband wanted to do. Fortuitously, one of his best friends, Kris Somers, a brilliant clinician, was the head of cardiology in Mulago Hospital, Kampala. Before long, the Whitelaws were on their way to Uganda where Bill could learn tropical medicine and cardiology and assist with teaching and patient care.

After a year in Uganda, Whitelaw began pursuing his PhD at McGill's Department of Physiology, studying the function of respiratory muscles and the control of breathing with Joseph Milic-Emili. During his third and final year Whitelaw, who had just secured funding to go to Edinburgh for additional clinical training in respiratory medicine, received a letter from Clarence Guenter in Calgary inviting him to consider a job. Whitelaw, who already had plans to return to a McGill faculty position was about to turn Guenter down when Milic-Emili suggested there was no harm in meeting Guenter and hearing him out. One look at Bill's face upon his return told Jenny the couple was heading West. Clarence Guenter is a very hard person to say no to.

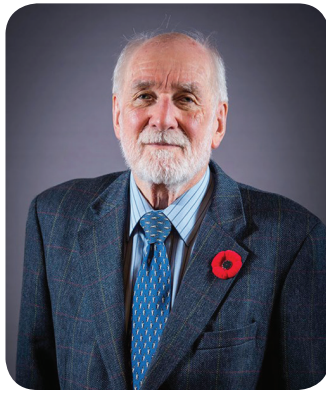
While in Edinburgh, Guenter asked Whitelaw to check out how intensive care was evolving in the UK, since Calgary was going to open a four bed unit. There were only two ICUs in the UK, a choice between Glasgow and London. Two weeks in St. Thomas Hospital in London gave him some ideas from the brilliant, ingenious eccentric who had single handedly invented and constructed all the monitors and intravascular pressure sensors for a fifteen-bed ICU and was managing all the cases by himself.

Whitelaw finally arrived in Calgary in 1976 with his signature neckties to join the small group of clinicians with a special interest in respiratory medicine at the Foothills Hospital. After setting up his research lab, he worked with Guenter to obtain Royal College accreditation for the pulmonary postgraduate training program.

An accomplished researcher, clinician and educator, Whitelaw became a logical yet resistant choice to take over from Guenter as head of Respiratory Medicine. After accepting, he carried on in the position for 19 years, during which he helped to build and foster a collaborative group of respirologists at the Foothills Hospital that eventually spread to the entire city.

Whitelaw wrote several classic articles on diaphragm structure and function. He spent several years working with Karen Rimmer, who trained in clinical respiratory medicine and in respiratory muscle research. Their technique of placing small recording needle electrodes into the intercostal muscles that run between the ribs allowed them to understand the activation of different muscle types during the breathing cycle. On separate occasions, while running tests on themselves, both Whitelaw and Rimmer managed to collapse their own lung by placing the needles just a little too deep.

After turning over the Division Head reins to Bob Cowie in 1997, Whitelaw helped Peter Cruse, a Professor of Surgery, develop the modern Calgary history of medicine program at the Faculty of Medicine. Whitelaw retired from the Faculty in 2007.



## Bob Cowie

### *Division Head*

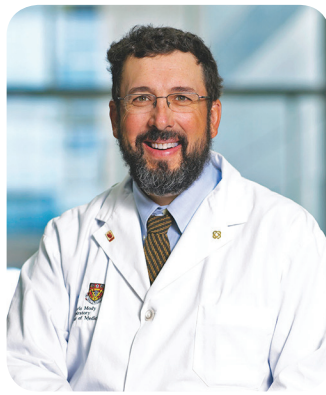
1997–2003

Bob Cowie completed medical training in his home town, at the University of Cape Town, in 1962. Six years of residency at the university's Groote Schuur Hospital included three years of internal medicine training. As a young intensivist and respirologist, Cowie started the first medical subspecialty practice and private lung function lab in Cape Town. Several years later he was recruited to run the Department of Medicine at the 900-bed Ernest Oppenheimer Hospital in Welkom where he provided care for 110,000 gold miners and their families. As a general internist Cowie ran a respirology and intensive care service, an acute renal dialysis unit and the pediatric, psychiatric, dermatologic and obstetric departments! With Cowie's assistance the hospital became a medical and surgical specialty training program for the University of the Witwatersrand in Johannesburg.

Among his tuberculosis patients Cowie faced a dilemma: the 'standard' treatment was 18 to 24 months of streptomycin, INH and thiacetazone. In reality, patients were only treated for the month or two that it took to process their dismissal from the mine, after which they were sent home to poor rural areas of southern Africa with little chance of receiving further treatment. Cowie persuaded the mining company (with GREAT difficulty) and the medical staff to let him treat the miners with a short-course TB treatment with newly-developed rifampicin (rifampin). Fighting huge opposition, Cowie conducted rigorous clinical trials (the percentage who completed adequate TB treatment improved from 9.6% to 92.0% with short-course therapy) and successfully advocated for the treated miners to remain employed. The vast majority elected to return to their old mining jobs.

Cowie also studied the effects of silica containing dust on the respiratory health of the miners. Through this research he met Margot Becklake, an international expert in respiratory epidemiology who had also studied the effects of dust inhalation on miners. A former South African, Becklake and her cardiologist husband, Maurice McGregor, had been at McGill since the late 1950's. McGregor, who had been the Dean of Medicine at McGill, was on a leave of absence in South Africa where he had been invited to serve temporarily as Dean of Medicine at the University of the Witwatersrand, his alma mater. During a visit to Welkom, Becklake suggested that Cowie take a course in epidemiology and statistics at McGill. A travel bursary made the trip possible for him in 1982. Cowie returned again in 1987 for additional courses while writing his Master's thesis on TB relapse. He completed his doctoral thesis on silica- containing dust exposure at the University of Cape Town while he continued to work in Welkom.

At some point, Montreal contacts alerted Bill Whitelaw to this star respirologist in South Africa, and Cowie made the move to Calgary where he was an active contributing division member and leader until his retirement in 2015.



## Chris Mody

### *Division Head*

2003–2013

Chris Mody may have been born in Ontario, but his heart has always been out west. Mody grew up in the Thousand Islands, landing at Queen's University for medical school. In his last year there, he was pretty certain that the newly developed Royal College emergency medicine program was where he was headed. A four-week elective in Calgary with a bit of skiing on weekends sealed his future.

For Mody, the balance of scientific and technical explorations with the youthful vibrancy of the Foothills Hospital made the decision to move to Calgary an easy one. In 1981, he started as a resident in internal medicine, a requirement for the emergency medicine program. But he had such a good time he decided to do a second year of internal medicine.

There, he met the likes of Bill Whitelaw and Clarence Guenter, and shared some cases with infectious diseases specialist Harvey Rabin.

One particular patient troubled Mody and had him stumped. The patient came into hospital and eventually died from an overwhelming aspergillus infection. When the patient's brother came in a few months later with the same problem, it prompted many investigations looking for genetic causes of this apparent immunodeficiency. Eventually the diagnosis of chronic granulomatous disease was made, which sparked Mody's life-long interest in cell-mediated immunity.

These experiences also stimulated an ongoing quest to find answers to problems that his patients presented with. Not surprisingly, Mody found he had an affinity for respirology, infectious diseases and a growing interest in research. He naturally turned to Whitelaw and Guenter for mentorship. Much to Mody's surprise, Guenter suggested he leave Calgary to hone his skills under the influence of leading experts in his chosen field of microbial host defence and microbial immunology of the lung.

After interviewing at several places in the U.S., he ended up at UT Southwestern in Dallas where he crossed paths with 'The Canadian'—Jon Meddings of Edmonton, who was doing innovative GI research. Mody secured the opportunity to do research with Galen Toews, a rising star in immunology and respiratory disease. He followed Toews to the University of Michigan for three more years of research after one year in Dallas. He returned to the Foothills and the University of Calgary in 1991.

Mody spent 12 years as a respirologist and clinician scientist in various roles within the Respiratory Division until taking over as Division Head in 2003. In the 10 years he held the role, Mody used his early career experience to create the Advanced Pulmonary Fellowship, a program designed to give young trainees the same kind of opportunity that Guenter had created for him.

The program encourages people who are already training at the University of Calgary to study under the best doctors in their field, regardless of geography. Mody says, if they return, which many do, not only have they been trained by world experts but they know their employer has a vested interest in feeding their passion and helping their career.

Mody stepped down as Division Head in 2013 to become the Department Head for Medical Microbiology and Immunology. In 2018, in honour of Dr. Mody's vision, the Division officially named the fellowship the Mody Advanced Training Award.



## Richard Leigh

### *Division Head*

2013–2016

Richard Leigh was born in Windhoek, Namibia when it was still referred to as 'South West Africa' but governed by South Africa. South West Africa had been a former German colony and continued to have a strong German influence. As such, Leigh learned German from his playmates before he learned English from his South African parents. Leigh entered medical school in Cape Town in 1982, graduated at the top of his class and took a one-year internship at Frere Hospital situated along the country's east coast. There he met his future wife, Margaret Kelly, a first-year internal medicine resident.

Conscription into the South African Defence Force sent Leigh to a rural 'mission' hospital in Maandagshoek (Monday's Corner), near the Kruger national park for two years. Along with another doctor, Leigh ran the 200-bed hospital doing obstetrics, anesthesia, surgery and minor orthopedics along with a daily lineup of ambulatory patients. Despite being on call every night for 15 months he also found time to establish a much-needed TB service.

The release of Nelson Mandela in 1990 saw the end of conscription and Leigh's service time reduced by six months.

Maandagshoek prepared him well for his next role—a one-year posting as a Senior House Officer in pulmonary/critical care and cardiology before starting internal medicine training and subsequently a fellowship in pulmonary and critical care in Cape Town. There, he and Margaret, who changed her subspecialty training to pathology, were married.

A pulmonary mentor, Eric Bateman, encouraged Leigh to head overseas for advanced training. Bateman had just returned from a sabbatical with Jim Hogg in Vancouver, so he encouraged Leigh to consider Canada rather than the more conventional UK destinations. Serendipitously, EJ Moran Campbell (a founder of McMaster Medical School and inventor of the Venturi mask) was visiting Cape Town and wanted to see a rugby match. Leigh, an avid rugby fan, gladly offered to accompany him. That happy social occasion led to an introduction to Paul O'Byrne and Freddy Hargreave, and a subsequent training opportunity for Leigh with their internationally renowned pulmonary research team at McMaster. Leigh and Kelly packed up and landed in Hamilton in 1997.

After several years, opportunities for both Leigh and Kelly were increasingly limited in South Africa. They explored opportunities across North America, including offers from Mayo Clinic, National Jewish Health in Denver, and UCSF. However, retraining, board certification, and visa issues resulted in them both choosing PhD studies and a longer-term stay in Hamilton.

In the spring of 2003, Leigh was having one of those frustrating weeks in the lab: his PhD experiments weren't working, and a future in Hamilton was not as certain as it once had seemed. Prodded by his wife, Leigh decided to reach out to Bob Cowie in Calgary, who he knew by reputation from South Africa. Leigh emailed Cowie enquiring about opportunities for two South African trained specialists in Canada. Unbeknownst to Leigh, the Respiratory Research group in Calgary had recently posted a position for a clinician scientist. Cowie replied within the hour saying Leigh was just the sort of person that Calgary was looking for.