

Creating *the* Future *of* Health

The History of the Cumming School of Medicine
at the University of Calgary, 1967-2012

*Robert Lampard, David B. Hogan,
Frank W. Stahnisch, and James R. Wright, Jr.*



CREATING THE FUTURE OF HEALTH: The History of the Cumming School of Medicine at the University of Calgary, 1967-2012

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Frank W. Stahnisch, and James R. Wright, Jr.

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Creating the Future of Health



UNIVERSITY OF CALGARY
Press

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Foreword

Since opening its doors in 1967, our medical school has grown and evolved into an internationally recognized leader in education and research. We've seen immense growth, life-changing research advancements and innovative shifts in health care that are improving lives every day.

Our school has grown from one single building, the Health Sciences Centre, to a campus with world-class facilities such as the Advanced Technical Skills Simulation Laboratory (ATSSL), the Ward of the 21st Century, and the International Microbiome Centre.

The number of students enrolled in our Undergraduate Medical Education (UME) program has increased from thirty-two in 1970 to 487 (in all years combined) in 2020. The number of programs we offer has also risen. In addition to our UME program, which is one of only two three-year medical programs in Canada, we also offer a Bachelor of Health Sciences program, a Bachelor of Community Rehabilitation program, graduate and post-graduate medical education programs, and continuing medical education and professional development programs. We also offer a highly regarded Leaders in Medicine program, which provides motivated students with the opportunity to complete both a medical and graduate degree.

In addition to our education programs, the Cumming School of Medicine—which was renamed in 2014 to honour a \$100 million gift from Geoffrey Cumming that was matched by the Government of Alberta—is home to seven research institutes that are working to better the lives of people in southern Alberta and beyond. We've seen great developments, including the creation of the Alberta Provincial Project for Outcome Assessment in Coronary Heart Disease (APPROACH) database, the discovery that a common acne medication can slow the progress of multiple sclerosis (MS), a potential treatment for autoimmune diseases that resulted in a \$1 billion collaboration and license agreement between Parvus Therapeutics and California-based Genentech (Roche Group), and research that has changed stroke treatment around the world. This type of research is possible because of our willingness to take risks and try new things—qualities that have come to define us.

We strive to create the future of health, which for us means better, more personalized health care in Alberta and beyond, and have adapted both our research and education programs to achieve this goal. We're training and retaining excellent physicians and researchers, which leads to improved health care for individuals and communities.

We're also very focused on diversity and collaboration. When it comes to creating equity in health care, we want to be a leader. We've designed the Pathways to Medicine Scholarship program to support

the enrolment and success of future medical students from traditionally under-represented groups throughout Alberta. We want to show others how to close the gaps that exist when it comes to the health of Indigenous people.

All of these qualities combine to attract the best and brightest minds to our school. The people who work and study here, and those who support us from the community, are the key driver of our success. This began with our founding dean,

Dr. Bill Cochrane, MD, who passed away in October 2017 at the age of ninety-one. It's because of his original vision that Calgary has a medical school, and I'm delighted that we've been able to honour him in different ways throughout the years.

This book celebrates how far we've come on our journey in the evolution of medicine, and the impact of our school. Here's to creating the future of medicine, and a future that's even brighter than our past.

Jon Meddings, MD
Dean, Cumming School of Medicine
University of Calgary

Authors' Note

The idea for an official history of the University of Calgary Faculty of Medicine began with Thomas C. Saunders (1921–2008), Lawrence A. Fisher, and Cyril Levene, early faculty members who embarked on such a project in 2000. By 2006, they had written or begun drafting about thirteen chapters. They estimated at this point that they had completed more than half of their manuscript but also concluded, because of advancing age and health issues, that they would never be able to finish their project; they naturally became increasingly concerned that the fruits of their labour would be lost. In 2007, they reached out to Dean Tom Feasby, Associate Dean for Undergraduate Medical Education Allan Jones, and Associate Dean Continuing Medical Education Jocelyn Lockyer, to make arrangements to preserve their work. However, since the position of the AMF/Hannah Professorship in the History of Medicine and Health Care was currently vacant, and a medical historian was in the process of being recruited, there was not an institutional historian available to receive and preserve these materials. The current writing team came together through efforts to save this draft. The manuscript, which was on computer software that was no longer in use and a disc that could not easily be read, was eventually reformatted and recovered, but no efforts to continue the book were undertaken until near the end of the Feasby deanship. In 2011, Dean Feasby authorized the project and his successor as dean, Jon Meddings, continued to support the project, so that research and book writing continued throughout his deanship as well.

The first major decision, once the project was resurrected by the new writing team, related to the overall format for the book. The multiple drafts by Saunders, Fisher, and Levene particularly reflected their own interests as education researchers, since they had played a major role in the design of the innovative curriculum and in implementing the unique philosophy of the new medical school in Calgary. The new authors decided to take a radically different approach. After extensive discussion, we decided to describe the events leading up to the formation of the Faculty of Medicine in a single, largely chronological introduction to the historical background. The main chapters would each focus upon individual deanships, beginning with the founding dean, Dr. William Cochrane (1926–2017). The final chapter would be a summary and discussion of some of the main educational achievements, institutional and unit developments, and the research and outreach contributions of the University of Calgary Faculty of Medicine. We decided to have the book completed in time for the Faculty of Medicine's fiftieth anniversary. The Saunders, Fisher, and Levene draft had no real impact on the current book, and so the current authors accept full blame for any deficiencies. Nevertheless, the previous draft is preserved, along with

other unique materials used to write our book, in the U of C Archives.

As authors, our next discussion was to try to agree on when the Faculty of Medicine actually began. A case could be made for 1967, when Bill Cochrane was hired, or for 1970, when the first class of thirty-two students were enrolled. In our wish to celebrate the fiftieth anniversary, we decided on the latter, especially since the fortieth-anniversary celebration had been held on 9 October 2011, honouring the arrival of the first student in Calgary four decades earlier. However, that was not such a firm decision that it precluded a bonus fiftieth-anniversary celebration in 2017, which was especially timely in that it was also personally attended by Dean Cochrane just before his passing.

The next major decision was where and when the book should end. Fifty years was unlikely to align exactly with the end of a deanship. There were also practical considerations too. Even if the fifty years did coincide with the end of a deanship, we would not know that very far in advance. Since an “additional chapter” covering an entire deanship could not be left to a last-minute decision, and since the book would be written over a number of years during our spare time, we decided that it would cover only up until the end of the Feasby deanship in 2012. This would allow us to have the book finished by the fiftieth anniversary of the entry class in 2020.

The last major decision was how to approach individual deanship chapters. In general, it was agreed that each of the four authors would explore and describe the period(s) related to two one-term

deans or one two-term dean. The relative length of each chapter would be roughly determined by the length of the corresponding deanship. Generally speaking, there were four “one-term deans” (Cochrane, McLeod, Smith, and Feasby) and two “two-term deans” (Watanabe and Gall) within our time frame. However, even this is an over-simplification, as, strictly speaking, Cochrane never had been assigned a “term” per se, McLeod served a bit more than one term, and Watanabe served a year-long acting deanship plus two full terms.

This resulted in Lampard authoring the Cochrane and McLeod chapters, Wright the Watanabe chapter, Hogan the Smith and Feasby chapters, and, Stahnisch and Lampard the Gall chapter. The Appendices were compiled by Dack and Lampard, while the Illustrations were compiled by Lampard and Pratt. Nineteen topics that were deemed noteworthy, but either tangential to or bridging multiple deanships, were covered separately by sidebars written primarily by Hogan and Lampard.

Each author came to the project from different backgrounds. Lampard had been the medical director at the Foothills Hospital from 1968 to 1981 and knew all the early players personally; he had also spent most of his almost fifty-year career in Alberta and had published extensively on the history of medicine and medical education in the province. Lampard therefore wrote the Introduction. Hogan was recruited to the University of Calgary near the end of Dean Mamoru Watanabe’s deanship, and so also lived through much of what is discussed in the book. Stahnisch and Wright were recruited to the University of Calgary toward

the end of the time period covered here; the learning curve for them was therefore steeper. It also quickly became clear that the available historical materials related to each deanship were unevenly distributed. In some instances, the deans were deceased and could not be interviewed, as was the case with Deans McLeod and Gall. While all living deans were interviewed by the authors, the extent and format of each interview was highly variable, depending upon the approach chosen by the author of the chapter as well as the health and relative availabilities of each dean. Finally, there were differences in the main occurrences within the provincial health-care system during the various deanships—of course, some appeared evolutionary, some were deemed progressive and revolutionary, and several events were described by contemporaries as “catastrophic.”

During the first three deanship periods, the health-care partner was relatively stable, whereas during the last three the partnerships were much more chaotic. Because of the different nature of these events, it was agreed that each author had the

freedom to cover the deanship(s) in the manner that he believed best conveyed the events, issues, and prevailing attitudes. In general, authors covering the earlier deanships often chose to present in chronological order information related to the formative years of the Faculty of Medicine, while authors covering the later deanships chose a more thematic approach to recent events.

A final twist—an excellent one that propelled Calgary’s medical school into a new academic orbit—was an unprecedented and generous gift by Canadian businessman Geoffrey Cumming, which resulted in the renaming of the Faculty of Medicine. This occurred during the Meddings deanship in 2014, two years after the determined end point of our volume. We addressed this momentous change by providing a brief sidebar describing this event, even though it clearly falls outside of the timeline for the book. Those authors who may wish to write the sequel to our institutional history will certainly have decades at their disposal to evaluate how this gift changed or even transformed Calgary’s medical school.

Preface

Dr. Edward Atwater (1926–2019) outlined several objectives to consider when writing a faculty history. They ranged from recording the faculty’s growth and diversification to projecting an image of excellence.¹ As the University of Calgary’s Cumming School of Medicine (CSM), approaches its first half-century, there were additional reasons for compiling such a narrative: the lack of a previous published history; the fiftieth anniversary of the faculty’s first undergraduate medical class in 2020; and the willingness of the four living deans of this period to share their reflections on and recollections of their own experiences.

It helps as well that the CSM has a great story to tell. Together with McMaster University’s Faculty of Medicine, the CSM remains one of only two three-year undergraduate medical schools in Canada. It has a “can do” attitude that has overcome numerous challenges; it has grown rapidly and contributed many research discoveries; it has an exemplary accreditation record; it has developed an innovative curriculum based on the clinical presentation of the patient; and it has introduced current and cutting-edge medical advances to Southern Albertans.

Interest in the history of medicine in Calgary is long-standing. It began with Dr. Earle Scarlett (1896–1982), after he came to the youthful province of Alberta in 1930. Together with Dr. George D. Stanley (1876–1954), Dr. Scarlett published the quarterly *Calgary Associate Clinic Historical Bulletin* from 1936 to 1958.² The quarterly’s focus was on Alberta’s and Canada’s medical history. Early CSM faculty member Dr. Peter Cruse (1927–2006), was encouraged by Dr. Scarlett to introduce medical history to U of C students. A surgeon, Dr. Cruse began early morning discussions on surgical topics in 1972.³ These sessions evolved into the popular history of medicine (HOM) elective in 1978. The program expanded nationally—with international participation—as the History of Medicine Days conference, perpetuating Dr. Scarlett’s life-long desire to meld the art and the science of medicine.⁴

In 1993, Dr. Tait McPhedran (1924–2012) visited every Canadian medical school and wrote the only substantial review of the origin and development of the (then sixteen, now seventeen) Canadian medical schools.⁵ Complementing his work, several U of C departments and programs have written their own histories.⁶ The CSM story has many precedents. The present institutional history follows in the footsteps of at least sixteen faculty history books now written on twelve of Canada’s medical schools.⁷ More can be anticipated as we approach the two-hundredth anniversary of the first school—McGill in 1822—and the fiftieth anniversary of the four schools founded in the late 1960s in the wake of the Royal Commission on Health Services (McMaster, Memorial, Sherbrooke, and Calgary).

Acknowledgements

Our sincere appreciation and thanks are extended to the four deans we were able to interview for this book (Cochrane, Watanabe, Smith, Feasby), for their willingness to participate in this endeavour. We are also very appreciative of the contribution of the families of Deans McLeod and Gall, who responded enthusiastically to every inquiry we made. Their participation has done much to personalize this record.

Further appreciation is extended to Dean Tom Feasby, who initially authorized the project, and his successor, Dean Jon Meddings, for their unwavering support this project, despite the long incubation period required to bring it to completion, prolonged by the Covid-19 crisis. As well we thank Dr. Meddings for his Foreword. Without their ongoing involvement and the financial support of the Cumming School of Medicine, this book would never have been completed. We also thank the Alberta Historical Resources Foundation for providing additional research and publication support.

We wish to acknowledge the skills and experience that our two dedicated research assistants, William Pratt and Mikkel Dack, brought to the project. They contributed extensively to the research, securing of photographs, and creation of the bibliography and appendices, while carefully editing and formatting the text and references. Both were U of C PhD students in history when the project began but have now graduated and embarked on their own academic careers. We wish them well.

The authors are very appreciative of the many individuals who generously provided their time to be interviewed; they are identified alphabetically at the end of the book. The project also benefitted from the helpful input of several early U of C students, including William Hughson, Gordon Ford, Lane Robson, Ruth Simkin, Craig Maishment, George Wyse, and Rod Elford.

The authors received substantial assistance from several sources, including the U of C Archives (UARC), which provided critical access to university and Faculty of Medicine records, despite the COVID-19 crisis. We are also indebted to the Faculty Alumni Office, Glenbow Archives, Alberta Health Services (Dennis Slater), and the Alberta Medical Association (Mavis Stoyko). We thank Robynne Healey for allowing us to include several quotes from an unpublished history of the AHFMR by Robynne R. Healey, Carolee Pollock, and Julian Martin's, *Shaping Research Frontiers: The Alberta Heritage Foundation for Medical Research, 1980-2005*.

The authors are grateful for the grant from the U of C Faculty of Medicine/Cumming School of Medicine, which supported the research, writing, editing, and publication of this project, including support for the research assistants. We further extend our sincere thanks to the Alberta Historical Research

Foundation, for their research grant at the commencement of the project. We thank Thomas Kryton, BFA, for photographing the dean's portraits in the Dean's Conference Room and for taking other important photographs in the book. We also thank Jordana Heller, Aisling Gamble, Amanda Fisher, Belinda Ibrahim, Curtis Frederick, and the UARC staff, Dennis Slater at AHS, Brian Scrivener, and the University of Calgary Press Staff, as well as many others for assistance in locating images and pictures of early and current faculty.

Unfortunately, only a small sampling of photographs from the history of U of C could be included in the illustrations for this book. Space limitations meant that only four notable colleagues could be portrayed in each dean's illustration section. The authors apologize to the many other significant contributors to the faculty whose photographs could not be included. Countless donors have made contributions to the faculty, financial and otherwise, and we extend our apologies for not being able to recognize them all.

We thank Ryan Perks for copy-editing the book and the two anonymous external reviewers whose comments improved it. All shortcomings in the book are fully the fault of the four co-authors. We are indebted to Brian Scrivener and the U of C Press for critical assistance with formatting, producing, and publishing the book.

Finally, we thank Donna Weich and Beth Cusitar, the administrative assistants in the Department of Community Health Sciences who, along with research assistants Will and Mikkel, kept us organized over the years that it took to

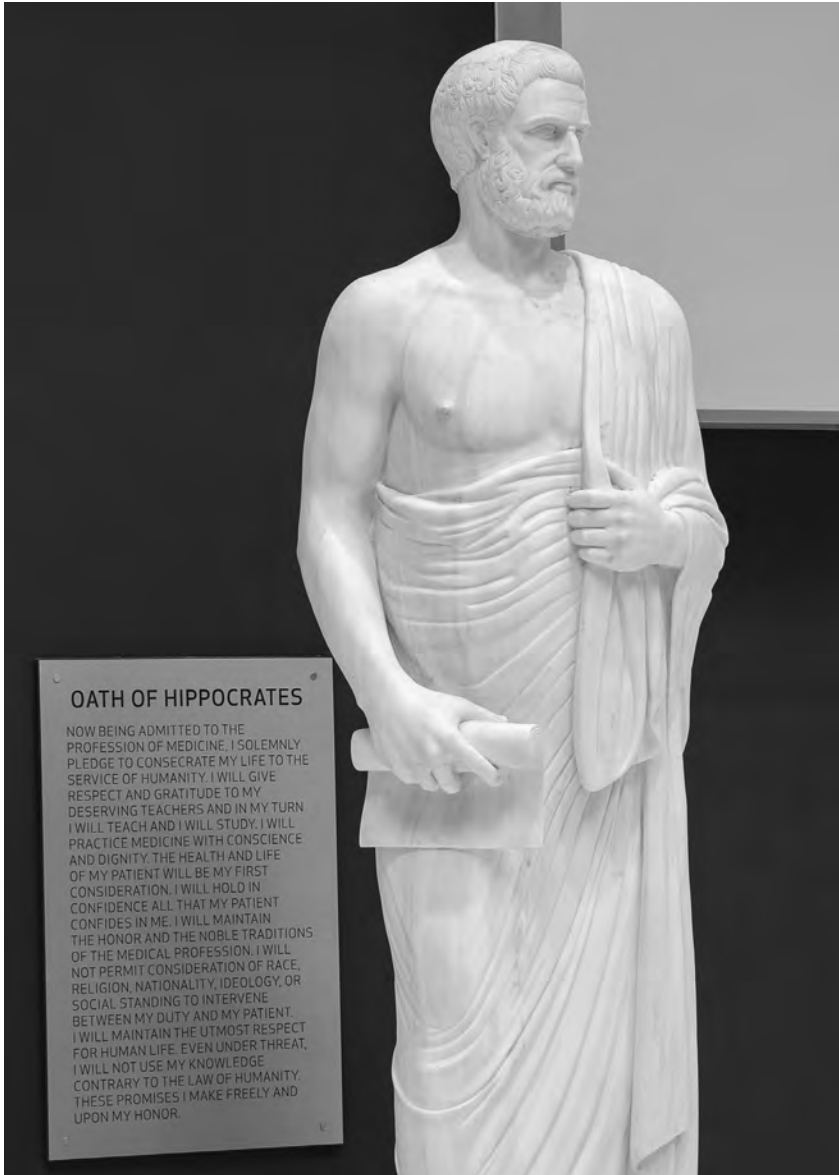
complete the book. Though it took almost as long and was in some ways just as eventful, our journey was much more enjoyable than that of Odysseus.

It should be noted that any unique materials used to write the book, including the prior manuscript of Laurence Fisher, Thomas Saunders, Cyril Levene (see authors' note), are deposited in the U of C Archives. We thank the U of C Archives for accommodating this request, which may help future researchers.

Though many others contributed to this project over the years, we can only note some of them by name. We want to thank, with apologies, anyone we have inadvertently neglected to mention here.

Robert Lampard
David B. Hogan
Frank W. Stahnisch
James R. Wright, Jr.

Illustrations



Statue of Hippocrates. This treasured statue in the Main Atrium was sculpted in Greece and presented to the faculty by Jimmie and Maria Condon in November 1980. Credit: Thomas Kryton.

Sunset through the Foothills Hospital skeleton in 1963. With 766 beds, it was the largest hospital in North America built at one time when it opened in June 1966. Credit: Accession number 84.005_47.30, University Archives, University of Calgary.



Aerial view of the Foothills Medical Centre in 1972. Credit: Accession number 84.005-23.07_3-4, University Archives, University of Calgary.





Aerial view of the Foothills Medical Centre in 2006, with the Health Research and Innovation Centre and Teaching, Research and Wellness research buildings in the foreground (middle), and the basement of the McCaig Tower, then under construction, in the foreground (right). Credit: Cumming School of Medicine, University of Calgary.



Left: The Foothills Medical Centre in 2018, with the new Cancer Centre under construction in the background (left). Credit: Cumming School of Medicine, University of Calgary.

Right: Atrium of the Health Sciences Centre. Credit: Cumming School of Medicine, University of Calgary.

Atrium of the Heritage
Medical Research Building.
Credit: Robert Lampard.



Atrium of the Health Research and Innovation Centre. The Awards
Wall can be seen on the right. Credit: Robert Lampard.

Right: Libin Lecture Theatre. Credit: Thomas Kryton.





Peter Lougheed Hospital. Opened in 1988, it currently has more than 600 beds. Credit: Robert Lampard.



Rockyview General Hospital. Opened in 1966, it currently has more than 650 beds. Credit: Cumming School of Medicine, University of Calgary.



South Health Campus Hospital. Opened in 2013, it will eventually have an estimated 642 beds. Credit: Cumming School of Medicine, University of Calgary.

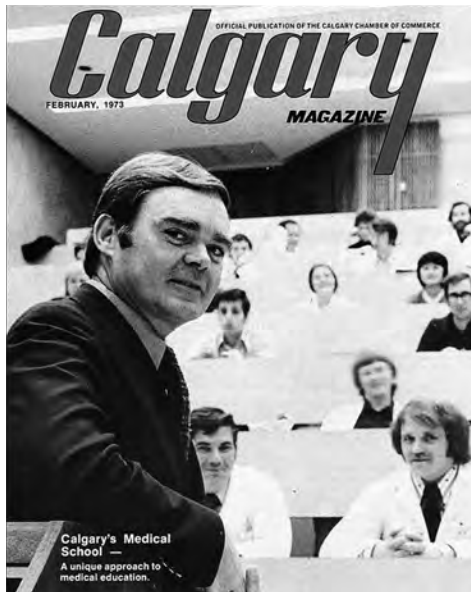
Right: Alberta Children's Hospital. Opened in 2006, it was the successor to the hospital located at 17th Avenue and Richmond Road in southwest Calgary. Credit: Thomas Kryton.



Dr. David Dickson, professor and head of Morphological Sciences (Anatomy), instructing the first medical class on the anatomy of the leg in 1971. Credit: Accession number 99.069_109, University Archives, University of Calgary.



Dr. William Cochrane teaching the second class of medical students in the Christie Theatre in 1972. Credit: *Calgary Magazine*, February 1973.



A menagerie of medical class animal names beginning in 1973. Credit: Cumming School of Medicine, University of Calgary.

CUMMING SCHOOL OF MEDICINE RHODES SCHOLARS



William Hughson
Class of 1973
Rhodes Scholar 1974



Jonathan Heston
Class of 1978
Rhodes Scholar 1975



Erik Pioro
Class of 1981
Rhodes Scholar 1980



William Gnam
Class of 1985
Rhodes Scholar 1985



An-Wen Chan
Class of 2000
Rhodes Scholar 2000



Braden O'Neill
Class of 2015
Rhodes Scholar 2011



Aravind Ganesh
Class of 2012
Rhodes Scholar 2014



Yan Yu
Class of 2014
Rhodes Scholar 2014



Rahul Arora
BHSc (Honours)
Class of 2019
Rhodes Scholar 2019



Emily Boucher
BHSc (Honours)
Class of 2019
Rhodes Scholar 2020

A plaque celebrating U of C medical students who have received Rhodes scholarships to Oxford University. Credit: Thomas Kryton.

Bottom left: The class of 1975 with their namesake at the first Med Show in 1973. Back row (left to right) Graham Law, Deb Brown, Wendy Wolfman, Bob Griebel, Brian Liggett, Barb Law. Front row (left to right) Al Murray, Gord Mathieson, Tom Rosenal. Credit: Brent Mitchell.

Bottom right: Dr. W. A. Cochrane leading the first graduating class in the recitation of the Hippocratic Oath during the official opening and first convocation of the medical school, June 1, 1973. Credit: University Archives, University of Calgary.



The virtual physical examination model “LINDSAY,” named after medical student Lindsay Kimmett, has been in use since 2011 to teach the anatomy of the seven body systems. The app was designed by Christian Joseph (shown), a professor of computer science at the U of C. Credit: Mike Sturk.



Adele Meyers. Appointed the student admitting officer and then coordinator of student affairs, she was the “mother confessor” and “problem solver” for students from 1976-2016. Credit: Adele Meyers.





The logos of the seven faculty-based research institutes launched 2004-2009. Credit: *UCalgary Medicine*, Fall 2004, Cumming School of Medicine, University of Calgary.



An early research project that studied the effects of marijuana. The investigators Drs. Keith MacCannell, Steve Milstein, and Gerald Karr are shown locking away the drug supply in a safe. Credit: Accession number NA-2864-19930, image courtesy of Glenbow Archives, Archives and Special Collections, University of Calgary.



Drs. Sam Weiss with Brent Reynolds showed in 1992 using a mouse model that neuro cells could regenerate. Credit: *UCalgary Medicine*, Summer 2008, Cumming School of Medicine, University of Calgary.

Right: Drs. Nigel Shrive and Cy Frank demonstrating the use of the "Spider" ligament testing equipment which they designed. Credit: *UCalgary Medicine*, Fall 2009, Cumming School of Medicine, University of Calgary.



Research Milestones



Dr. John Remmers, a pioneer obstructive sleep apnea researcher, monitors the performance of a patient in the Foothills sleep lab he started in 1984. Credit: Accession number 84.005_51.21_8, University Archives, University of Calgary.



Dr. Garnette Sutherland demonstrating the use of a mobile MRI scanner to donor Daryl K. "Doc" Seaman. Credit: Cumming School of Medicine, University of Calgary.



Bottom right: Dr. Doug Hamilton, a graduate of the class of 1992 with an MD/PhD, became a NASA scientist. He is seen here demonstrating CPR resuscitation at zero gravity. Credit: *UCalgary Medicine*, Summer 2012, Cumming School of Medicine, University of Calgary.

Partners in Health

Launched in 1995, the Partners in Health Campaign was a joint initiative of the Calgary Regional Health Authority, The University of Calgary Faculty of Medicine, Foothills Medical Centre, the Peter Lougheed Centre, the Rockyview General Hospital, the Grace Women's Health Centre and the Tom Baker Cancer Centre. The campaign raised \$50 million in support of leading edge programs and services integral to the development of a world class health system focusing on patient care, research and education.

Through their contributions, the individuals, foundations and companies listed on this wall have supported new breakthroughs in the treatment of disease, new initiatives in medical education and new standards for collaboration with the community.

THANK YOU.

Through a rigorous review process the following ten program areas were identified as the focus of the campaign:

The Partners in Health fundraising program (1992–1997) raised \$51 million for the faculty and its programs. Credit: Thomas Kryton.

Top right: The Reach! Campaign (2005–2010), co-chaired by Brenda Mackie, Bill Sembo, and Ken King, raised \$312 million for the faculty and its programs. Credit: *UCalgary Medicine*, January 2012, Cumming School of Medicine, University of Calgary.

Bottom right: Harley and Rebecca Hotchkiss. Credit: Cumming School of Medicine, University of Calgary.

*There have been many private supporters of the faculty over the years. The pictures here acknowledge just a few of them.



Philanthropy*



Bud and Ann McCaig. Credit: Accession number C0031 S001 FL0051, University Archives, University of Calgary.



David and Gail O'Brien. Credit: O'Brien Institute of Public Health.



Joan Snyder. Credit: Cumming School of Medicine, University of Calgary.

Alvin and Mona Libin. Credit: *UCalgary Medicine*, Summer 2008, Cumming School of Medicine, University of Calgary.


Bottom left: Arnie and Sandi Charbonneau. Credit: Cumming School of Medicine, University of Calgary.

Where in the World. Credit:
UCalgary Medicine, Spring/
 Summer 2015, Cumming
 School of Medicine,
 University of Calgary.

International Health

We are LOCAL


Partnership Sites for Training, Research and
Community Outreach



- ALBERTA CHILDREN'S HOSPITAL
- FOOTHILLS MEDICAL CENTRE
- PETER LOUGHEED CENTRE
- SUNRIDGE FAMILY MEDICINE TEACHING CLINIC
- MOSAIC REFUGEE HEALTH CLINIC
- TELUS SPARK SCIENCE CENTRE
- CALGARY PUBLIC LIBRARY
- CITY OF CALGARY
- INN FROM THE COLD STUDENT RUN CLINIC
- SHELDON M. CHUMIR HEALTH CENTRE - CENTRAL TEACHING CLINIC
- THE ALEX HEALTH BUS
- ROCKYVIEW GENERAL HOSPITAL
- SOUTH HEALTH CAMPUS
- SOUTH HEALTH CAMPUS FAMILY MEDICINE TEACHING CLINIC

Partnerships between the university, Alberta Health Services and the community, our research institutes are collaborative organizing vehicles with the capability to bring rapid innovation to patients:

- Alberta Children's Hospital for Child and Maternal Health
- Calvin, Phoebe and Joan Snyder Institute for Chronic Diseases
- Hotchkiss Brain Institute
- O'Brien Institute for Public Health
- Libin Cardiovascular Institute of Alberta
- McCaig Institute for Bone and Joint Health
- Southern Alberta Cancer Research Institute

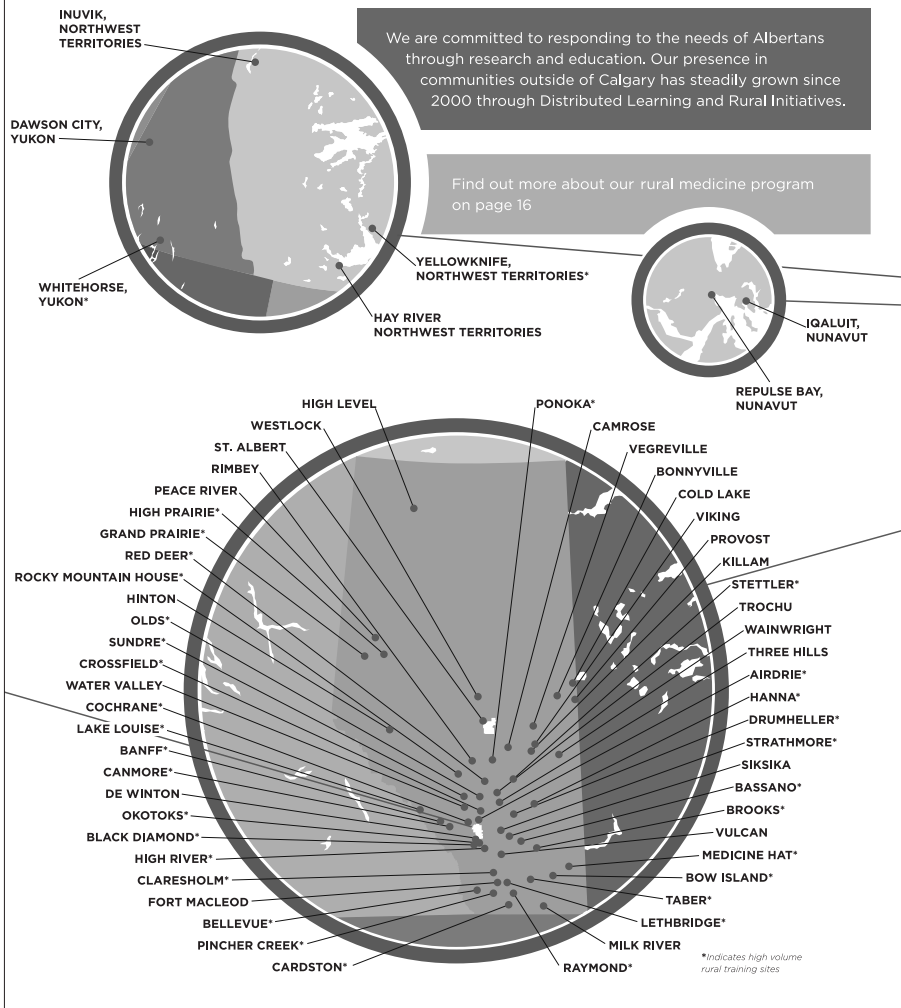


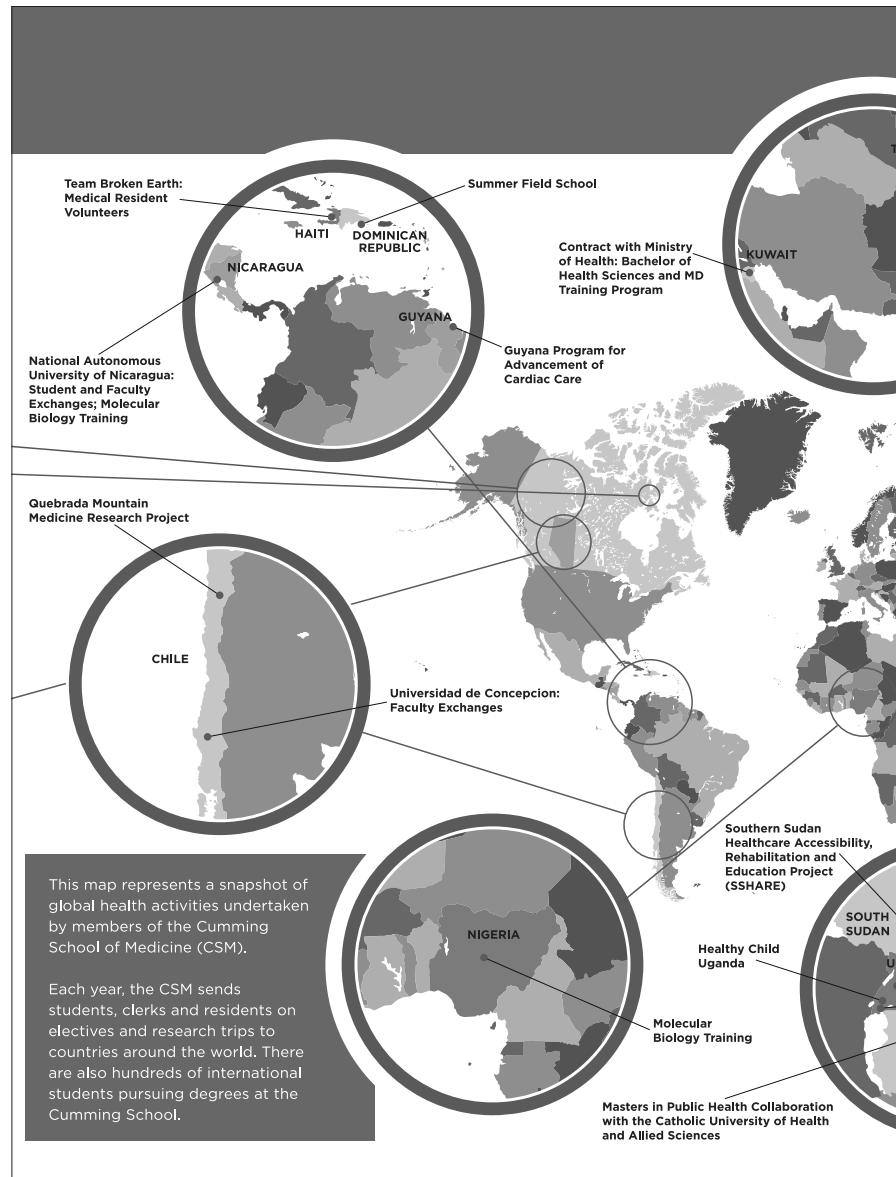
**UNIVERSITY OF
CALGARY**

Find out more about our Student Run Clinic on page five

We are RURAL

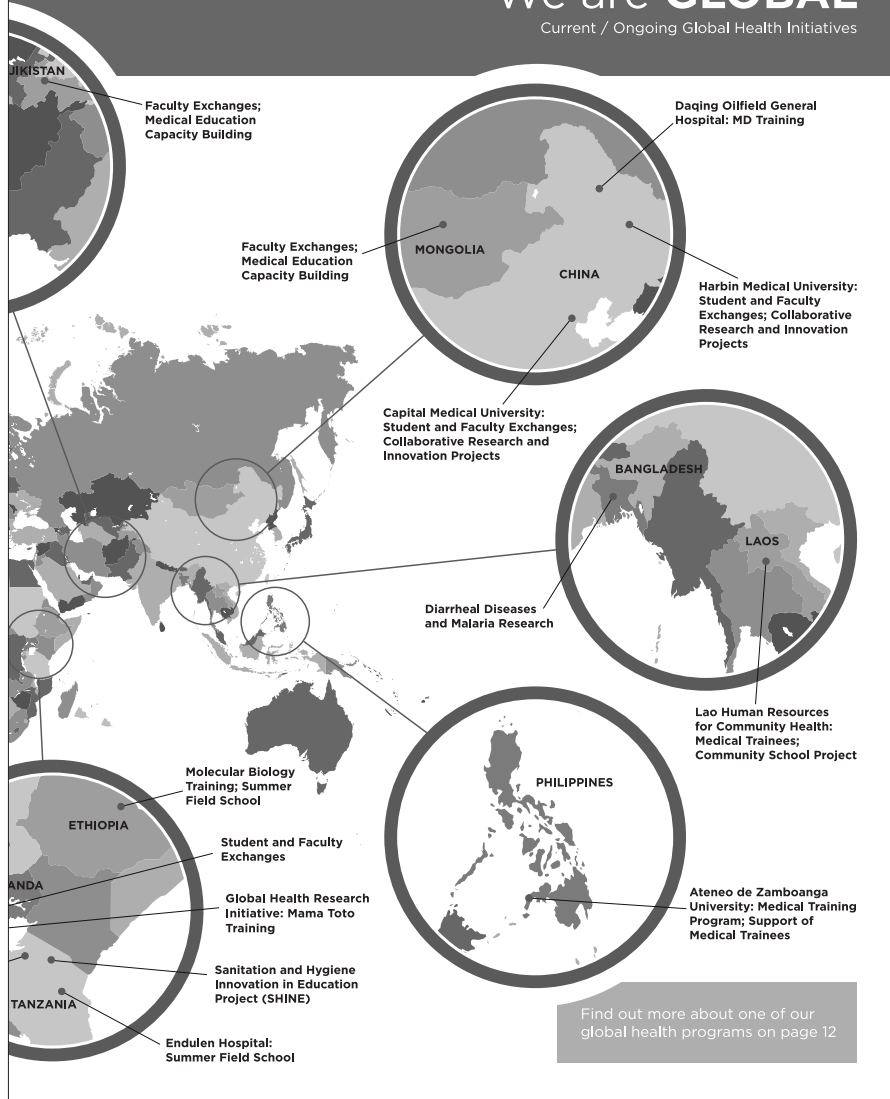
Rural Training Sites 2014/15 Academic Year





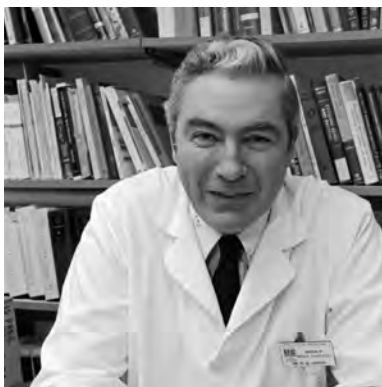
We are GLOBAL

Current / Ongoing Global Health Initiatives

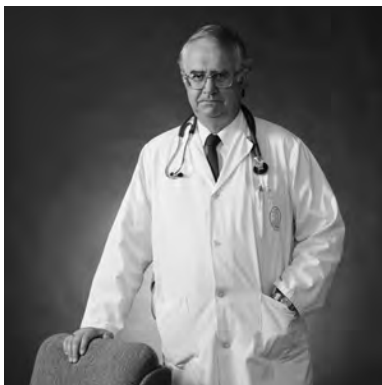


THE DEAN COCHRANE YEARS

Dr. Robert Church. In 1968 he became the first professor and head of the division of medical biochemistry and molecular biology from 1969-1983. His research contributed to the cloning of the first mammal, Dolly, a female domestic sheep. Within the faculty, he served as associate dean (research) (1981-88) and medical science (1990-92). In the Calgary community, he was president of the Calgary Stampede and a faculty fundraiser. Credit: Accession number 84.005_B58, University Archives, University of Calgary.



Dr. David Dickson. While at Dalhousie with Dr. Cochrane, Dr. Dickson studied the systems approach to teaching medicine. After arriving in 1968 he played a leading role in implementing the systems-based MD curriculum, serving as the first professor and head of morphological sciences (anatomy) and associate dean (education)(1972-76). Credit: Accession number 84.005_5-34, University Archives, University of Calgary.



Bottom left: Dr. Keith MacCannell. Joining the faculty in 1969 as the professor and head of pharmacology and therapeutics, he chaired the first admissions (1969) and research committees (1970) before being appointed the first associate dean (research) (1972-74). A perennial student, he completed sub-specialty training in gastroenterology at age 50. Credit: Accession number 82.011_6-21, University Archives, University of Calgary.

Bottom right: Dr. Keith Cooper. An expert in thermoregulation, he earned his DSc from Oxford. He was the first professor and head of physiology (1968-78), before becoming the U of C vice president (research) (1978-84). Credit: Accession number 84.005_35.36_5, University Archives, University of Calgary.

*The successes during the tenure of each dean were only achieved through collective effort. The pictures here acknowledge just a few of those who played notable roles in the work of the faculty.

THE DEAN MCLEOD YEARS



Dr. Warren Veale. A brain researcher, he arrived in 1970 and served as the faculty's associate dean (research) (1974–80), before becoming the associate dean (kinesiology), associate dean (graduate studies), associate vice president (graduate and degree programs), vice president (research), and interim U of C president and vice chancellor (2010). Credit: Accession number 2001065_110_7, University Archives, University of Calgary.

Dr. John Baumber. Joined the faculty in 1970 and was the assistant dean of admissions and student affairs (1975–79). Nationally, he led the revision of the national objectives for the LMCC qualifying examination. An active participant in international faculty development projects, he was awarded the Order of The University of Calgary (2009). Credit: Accession number 84.005_5.46_8, University Archives, University of Calgary.



Bottom left: Dr. Robert Haslam. A pediatric neurologist, he came to Calgary in 1975 as professor and head of pediatrics at the Children's and Foothills hospital. Haslam became the physician-in-chief of the Hospital for Sick Children in Toronto (1986–96), before returning to Calgary in 2000 as the head of the Child Development Research Centre. The Haslam Chair in pediatric neurology honours him. He became the third Officer of the Order of Canada in his family in 2007. Credit: Accession number 84.005_45.42, University Archives, University of Calgary.

Bottom right: Dr. Gerald McDougall. A psychiatrist and fifth-generation Albertan, he was the first coordinator and associate dean of post-graduate medical education and continuing medical education (1977–88). His model for evaluating post-graduate residency training programs was closely studied by the Royal College. Credit: Accession number 2004.069_5-03, University Archives, University of Calgary.

THE DEAN WATANABE YEARS

Dr. Henry Mandin. A nephrologist, he was the associate dean (undergraduate medical education) (1989–96). He led the development of the “clinical presentation” approach for organizing the teaching of medicine, which has received national and international recognition. Credit: Henry Mandin.



Dr. Quentin Pittman. A U of C PhD graduate (1976), he returned to the U of C in 1984. His research concentrated on the effect of chronic inflammatory disease on behaviour, using electrophysiological analysis of peptides to study neurotransmission, and the long-lasting effects of early life convulsions on the cytokine system. Credit: Quentin Pittman.

Bottom left: Dr. John Parboosingh. An obstetrician, he came to Calgary in 1978 to create clinical and educational links with southern Alberta physicians using teleconferencing, CME visits and locums at the FH/CGH hospitals. Named the first associate dean CME (1991–93), he was elected president of the US Society for Academic CME and established a maintenance of certification program for the RCPSC. Credit: Accession number 2004.069_5-03, University Archives, University of Calgary.



Bottom right: Dr. Robert Lee. A neurologist, with Dr. Frank Leblanc he was instrumental in creating the clinical neuroscience department in 1980, which he then led. He was the team physician for the 1986 Canadian Mount Everest Expedition and made numerous medical educational trips to Nepal and other countries. Credit: Accession number 48-21_85-0052-1_33a, University Archives, University of Calgary.

THE DEAN SMITH YEARS



Dr. Marvin Fritzler. A member of the second U of C medical class (1974), he returned in 1978. His research has focused on autoimmune diseases. He served as the associate dean (research) (1998–99). Dr. Fritzler has helped shape Alberta research through his involvement in Genome Alberta. Credit: Accession number 84.005_60-17, University Archives, University of Calgary.

Dr. George Wyse. Following a PhD in Pharmacology he received his MD from the U of C (1974). Dr. Wyse returned to Calgary in 1978 where he became the director of cardiology (1986–93), then associate dean (clinical affairs) (1993–99). He played a leading role in many large trials addressing key clinical questions in cardiology. Credit: Accession number 2004.069_5.04, University Archives, University of Calgary.

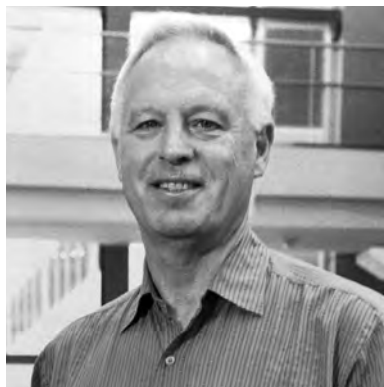


Bottom left: Dr. Merrill Knudtson. A graduate of the class of 1975, on his return to Calgary he created the Calgary Interventional Cardiology service (1981) and the APPROACH registry (1995). Acknowledged as the “father of interventional cardiology” in Canada, he received the Order of the University of Calgary in 2012. Credit: Accession number 2004.069_5.02, University Archives, University of Calgary.

Bottom right: Dr. Clarence Guenter. He served as the director of the department medicine (1976–85) before accepting the position of vice president and in 1990 president of Foothills Hospital. Following regionalization in 1993, he began consulting internationally and was the faculty’s director of International Health (1996–2003). He presented the first annual Guenter International Health lecture at the U of C in 2011. Credit: Clarence Guenter.

THE DEAN GALL YEARS

Dr. Johan (Hans) van de Sande. A biochemist, he completed his PhD at the U of A before coming to Calgary in 1972. He headed the medical biochemistry department (1988–93) before serving as associate dean (research) (1993–96), director of research (1996–98), and vice dean (1998–2005). He was awarded the Order of the University of Calgary (2005). Credit: Johan van de Sande.



Dr Pamela Sokol. A bacterial cytogeneticist, her early research was on cystic fibrosis. She came to Alberta as a Heritage Scholar in 1984. She was later appointed the assistant dean (graduate science) (1992–97) and was instrumental in establishing the MD/PhD Leaders in Medicine program and the O'Brien Bachelor in Health Science program. She then became the associate dean graduate science (1997–2000), associate vice president (research) at the university (2000–2005), and vice dean (2005–2007). Credit: Pam Sokol.



Bottom left: Dr. Richard Hawkes. He arrived in Calgary in 1989 as the professor and head of anatomy, where continued his research on the cerebellum and was an early member of the Hotchkiss Brain Institute. He was the associate dean (graduate science) (1999–2003), associate dean (research) (2004–12), and senior associate dean (research) (2009–12). Credit: Richard Hawkes.

Bottom right: Dr. Cy Frank. An orthopedic surgeon, he specialized in reconstructive surgery of the knee. With Dr. Nigel Shrive, he founded the McCaig Bone and Joint Research Centre in 1992. The recipient of dozens of awards, he became the first president and CEO of Alberta Innovates-Health Solutions, the AHFMR successor, and was the founding scientific director of the CIHR Institute for Musculoskeletal Health and Arthritis (2001–2007). Credit: Accession number 2004.069_5-02, University Archives, University of Calgary.

THE DEAN FEASBY YEARS



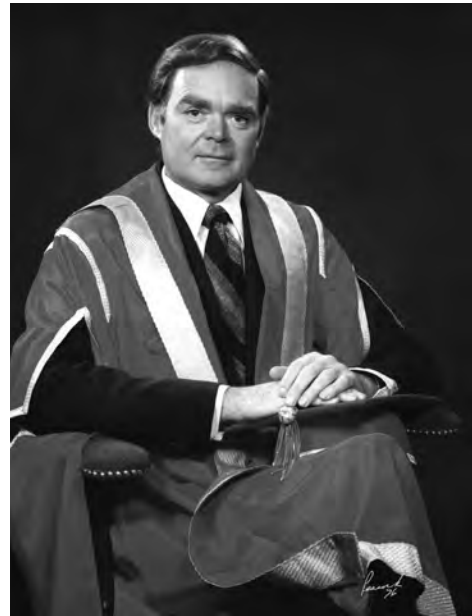
Dr. Jon Meddings. A U of A graduate, he specialized in gastroenterology with a particular interest in celiac and inflammatory bowel disease. He came to the U of C in 1987 and served as division chief (2000–2004) before returning to the U of A as the director of Internal medicine (2004–2009). He came back to the U of C as vice dean (2009–12) and then interim U of C VP (research) (2010–11) before becoming the seventh dean of medicine in 2012. Credit: *UCalgary Medicine*, Spring 2014, Cumming School of Medicine, University of Calgary.

Dr. Wee Yong. An internationally recognized neuroimmunologist and occupant of a Canada Research chair in neuroimmunology, he came to Calgary in 1996 as the director of the multiple sclerosis program. In 2007 he was appointed the chair of the awards and recognition committee and charged with celebrating excellence in the faculty through local, provincial, and national awards. Credit: Wee Yong.



Bottom left: Dr. Glenda MacQueen. A psychiatrist and researcher in the neurobiology and the treatment of major depression and bipolar disorder, she came to Calgary in 2008 as head of psychiatry. An exceptional and frequently cited scholar, she was a model of academic generosity and a mentor for students, particularly women in medicine. Widely admired, she became the vice dean in 2012, only retiring for health reasons in 2019. Credit: Cumming School of Medicine, University of Calgary.

Bottom right: Dr. Brenda Hemmelgarn. A nephrologist, with a PhD in epidemiology and biostatistics, Dr. Hemmelgarn has had a long and distinguished career in health care. She occupied the Roy and Vi Baay Chair in Kidney research (2011–16) and was the head of CHS (2014–20) before being appointed the dean of medicine and dentistry at the U of A. Four former U of C faculty members have been appointed as dean of another medical school. The others were Drs. Gerald Holman (Virginia), Dean Sandham (Manitoba) and Gavin Stuart (UBC). Credit: Brenda Hemmelgarn.



Medicine Chief. After supporting the creation of an on-site health and teaching centre on the Stoney Nakoda First Nations, Dr. Cochrane was appointed an honorary “Medicine Chief” by Chief Ray Baptiste in 1972. Credit: Accession number 84.005_13.05, University Archives, University of Calgary.

President Cochrane. As the founding dean he was selected as the third president of the University (1974–78), one of nine medical deans to become the president of a Canadian university. Credit: William Cochrane.

Bottom right: 25th Anniversary of the faculty. President Murray Fraser cuts the cake honoring the 25th anniversary of the faculty in 1995. (Left to right) Terry White, William Cochrane, Barbara McLeod, Mo Watanabe, Eldon Smith. Credit: Accession number 2004.069_3.15_2, University Archives, University of Calgary.





Top left: 40th Anniversary. A panel discussion was held to share perspectives on the highlights of each dean's tenure over of the first 40 years of the school. Presenters were: deans Feasby, Sokol (for Gall), Smith, Watanabe, Veale (for McLeod), and Cochrane. Credit: Robert Lampard.

47th Anniversary. In 2017 a special recognition ceremony was held to honor Dr. Cochrane on the 50th anniversary of his appointment as the dean of medicine. Shown here are (from left to right) Alvin Libin, Jon Meddings, Geoff Cumming, and (front) William Cochrane. Credit: Robert Lampard.

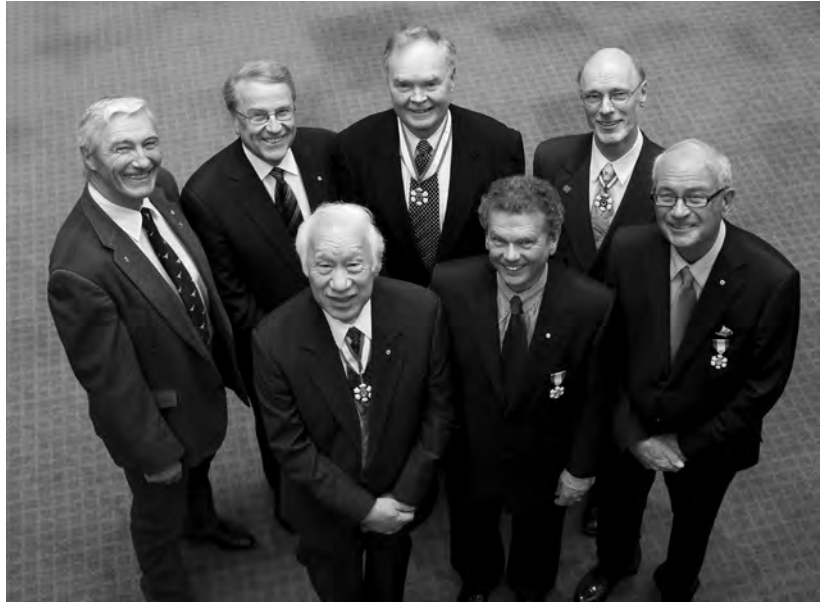
Bottom left: Olympic Mascots Hidy and Howdy. The official mascots for the Calgary 1988 Olympic Winter Games mascots suffered from elevated temperatures and CO₂ levels when in their costumes. This was remedied by installing fans in their hats. Credit: Accession number 84.005_58.37_5, University Archives, University of Calgary.



Dr. John Read. A pediatrician, he came to Calgary in 1968 as the first head of CHS. He played an instrumental role in making the 1988 Calgary Olympic Winter Games the first tobacco-free ones. He was also instrumental in persuading the government to make child restraints mandatory and was the father of the well-known downhill skier Ken Read. Credit: Ken Read.

By 2008, seven faculty had been awarded the Order of Canada: (LtoR back row) Drs. Robert Church, Eldon Smith, William Cochrane, Greg Powell, and (front) Drs. Mo Watanabe, Tom Noseworthy, and Robert Haslam. Three more faculty were similarly honored by 2012—Drs. Clarence Guenter, Garnette Sutherland, and Merrill Knudtson. Credit: *UCalgary Medicine Deans* edition, 2008, Cumming School of Medicine, University of Calgary.

Bottom right: Dr. Feasby introduced the “Feasby Fist Bump” in 2009 to reduce handshakes, hugs or kisses that could promote the spread of the H1N1 virus. Credit: Cumming School of Medicine, University of Calgary.





Tuk Tuk trip. Drs. Clarence Guenter and John Baumber (and Robert Lee, the photographer) taking their families on a tourist break in Laos in 2012. Credit: Robert Lee.



The Royal Visit. The Duke and Duchess of Cambridge officially visited the university and the faculty in 2011. Credit: Buckingham Palace and the Cumming School of Medicine, University of Calgary.

Historical Background

Robert Lampard

Medical Curricula

The first medical school in North America was established at the University of Mexico in 1578.¹ The resulting four-year course was a modification of the Hippocratic teachings then offered at European medical schools. The school incorporated the Vesalius (1514–1564) approach to the teaching of anatomy developed at Padua. It had little influence on medical education beyond its immediate surroundings.

Sixty years earlier, in 1518, King Henry VIII had established the Royal College of Physicians of London to certify the training of physicians.² After the Edinburgh faculty was formed in 1726, teaching in hospitals or infirmaries became commonplace. Popularly known as the “Edinburgh tradition,” this curriculum combined science, clinics, and bedside teaching.³

The first North American medical college outside of Mexico was established in Philadelphia in 1765. It was based on a one-thousand-hour curriculum completed over two semesters lasting four months each. An apprenticeship of one to three years followed.

In the early to mid-1800s, the increased availability of textbooks introduced self-learning and brought some standardization to the curricula.

Laboratory teaching and testing of the other basic medical sciences, notably physiology, chemistry, histology and pathology, and the hiring of part-time clinical teachers like William Osler (1849–1919) at McGill in 1874, led to a marked increase in the cost of medical education.⁴ This had the effect of rapidly reducing the number of private or proprietary medical schools.⁵ Although he left McGill for Philadelphia in 1884 and joined Johns Hopkins University in Baltimore in 1889, Osler returned to speak at the

opening of the new medical building at McGill in 1894; his subject was the dual function of a great university—to encourage its scholars to teach and to think.⁶

At Johns Hopkins an undergraduate degree and courses in physics, chemistry, and biology became a prerequisite for entering medical school. When the faculty opened in 1893, clinical teaching was organized on a departmental basis in medicine, surgery, obstetrics and gynecology, pediatrics, and psychiatry.⁷ That enabled Osler to introduce the concept of a clinical clerkship.⁸ Osler also fostered the deductive-reasoning model of teaching, with a differential or list of possible diagnoses established then narrowed to a provisional diagnosis.⁹ The Johns Hopkins model would guide undergraduate and postgraduate medical education for many years—with considerable Canadian input at the senior departmental chief and nursing superintendent levels.¹⁰

Beginning in the late 1800s, Canadian medical training programs grew increasingly similar to those offered in the United States, allowing for cross-border movement of physicians.¹¹ The process toward a standardized curriculum was accelerated by the Flexner-Carnegie report of 1910,¹² in which Abraham Flexner (1866–1959) recommended the Johns Hopkins curriculum: a two-year basic medical science program (covering anatomy, histology, physiology, bacteriology, biochemistry, and pathology) followed by two years of clinical teaching on a departmental basis.

Having measured the eight Canadian schools against his model, Flexner felt that five had at

least the potential to become Class A (acceptable) schools following an assessment by the American Medical Association's Committee on Medical Education.¹³

In 1919, the Rockefeller Foundation accelerated the introduction of the curriculum (colloquially known as the 2 plus 2 program) favoured by Flexner when it set aside \$5 million for grants—ranging from \$500,000 to \$1.5 million—for six Canadian medical schools.¹⁴

Another important advance was the introduction of an accreditation system for assessing undergraduate programs by the American Medical Association in 1904, and one for assessing postgraduate specialty training programs by the American College of Surgeons in 1916. American accreditation approval became highly prized by Canadian medical schools and hospitals.¹⁵ By 1929, nine Canadian schools had received an American Class A undergraduate approval rating.¹⁶

In the absence of any Canadian post-MD training programs except for elective internships, physicians seeking specialist training either went to Britain for a membership in the Royal College of Physicians/Surgeons (MRCP/S) or a fellowship in the Royal College of Physicians/Surgeons (FRCP/S), or to the United States for a fellowship in the American College of Physicians/Surgeons (FACP/S). In 1929 the Royal College of Physicians and Surgeons of Canada (RCPSC) was formed and began assessing specialists for fellowship recognition in 1930, followed by specialist examinations in 1932.¹⁷ The first specialty training (Gallie) program began in surgery at the University of Toronto

in 1931, with a systematically taught three-year program following an internship.¹⁸

It was not until after the Second World War that the first major change to the Flexner-recommended undergraduate curriculum was introduced at Cleveland's Western Reserve medical school.¹⁹ Instead of teaching two years of basic and then two years of clinical subjects, that information was integrated in a four-year program and taught one body system at a time.

Accreditation by Canadian institutions was introduced belatedly in Canada. A Canadian hospital assessment system was begun for internships by the Canadian Medical Association (CMA) Committee on Hospitals in 1931. It started as a questionnaire before being formalized as the Canadian Council on Hospital Accreditation (CCHA) in 1959.²⁰

In 1943 the Association of Canadian Medical Colleges (ACMC) was formed by the deans of the ten Canadian schools; their aim was to shorten the undergraduate teaching program from four to two years, and to meet the call made during the Second World War for eight hundred more doctors.²¹ After the war, the ACMC joined its American counterpart to jointly assess undergraduate programs in Canada. The conjoint accreditation system continues to this day as the Liaison Committee on Medical Education.

The University of Alberta began its own residency training programs in the major specialties in 1946; as such, it became only the third Canadian faculty to do so after McGill (1944) and U of T (1946). Seventy five per cent of the graduates

returned to practice in Alberta.²² Twenty years later the RCPSC introduced its own postgraduate accreditation program, one that was fully in place by 1975.²³

The focus on improving the undergraduate curriculum itself began in the early 1960s, after Dr. George Miller (1919–1998) wrote of the need to evaluate students and teachers, as well as the curriculum, to improve the presentation of medical knowledge.²⁴ This in turn enhanced the belief that physicians must be lifelong learners and that emphasis must be placed on continuing medical education and professional development.²⁵

Given the opportunity to create a completely new school at McMaster, in Hamilton, Ontario, in 1969 Dr. John R. Evans (1929–2015) and his colleagues introduced problem-based learning (PBL) in a system-based program.²⁶ This meant that the curriculum was presented as a series of clinical problems (congestive heart failure, hypertension, joint pain, etc.). The students researched a given topic before a small group tutorial containing six or seven students was held. The relevant basic medical science and clinical information was integrated with the focus being on the etiology of and most appropriate therapy for treating a given problem. Critics of this system argued that the study of a symptom like chest pain could come from two different body systems and have the same clinical presentation. Further, the small-group teaching format in the PBL model was expensive.²⁷

A similar approach was taken at the University of Calgary, although more didactic presentations were given. In 1992, the U of C program evolved

into a “clinical presentation” one in which the 120 most common clinical presentations became the focus for organizing the curriculum.²⁸

The medical schools at McMaster and Calgary, now fifty years old, remain the only system-based, continuously taught three-year programs in Canada.

Introduction of a Dominion Medical Examination in Canada

The first medical school in Canada was chartered in 1822 by four Edinburgh-trained physicians at the Montreal Medical Institute.²⁹ While the institute could set its own examinations, a degree could only be issued by an approved university. The school signed an affiliation agreement with McGill University in 1829 to do so. Two years later, provincial registration to practice as a physician became a requirement in Quebec.³⁰

In 1867, the British North America Act made each province responsible for its own health care and for registering physicians. That created an interprovincial portability problem. Incorporated that year, the CMA under the former premier of Nova Scotia and future prime minister Dr. Charles Tupper (1821–1915), together with Dr. William Marsden (1807–1885), spent seven years promoting the formation of a Dominion Medical Council to draft a national examination.³¹ The larger provinces expressed little willingness to give up their examination and licensing authority to a national body, so the initiative died.³²

In 1894, the CMA revisited the question under Dr. Thomas Roddick (1846–1923).³³ Elected an MP in 1896, he drafted the Canada Medical Act in 1899. It would create the Dominion Medical Council. Passed by the House of Commons in 1902,³⁴ complementary enabling acts were approved in the legislatures and by the medical associations of Manitoba (1903), the North-West Territories (1905), and then the new provinces of Alberta and Saskatchewan (1906).³⁵

With the process stalled, Drs. Robert G. Brett (1851–1929) and George A. Kennedy (1858–1913) took steps to form the Western Canada Medical Federation, which would henceforth serve as the examination authority for the region. Enthused, Manitoba physicians began the *Western Canada Medical Journal* in January 1907; Dr. Osler contributed the opening article. In it he wrote, “I hope in the matter of medical registration the journal will advocate reciprocity with the other provinces and with the mother country.”³⁶

At its 1909 meeting in Winnipeg, the CMA tackled the question again.³⁷ Successful, the Dominion Medical Council was created in 1912. Writing the national examination remained voluntary. Each province retained the right to set its own examinations for other applicants. It would take another fifty years before there was a full integration of the provincial and national (except for Quebec) examinations.³⁸ This contrasted with the Canadian Dental Association, which used bilateral agreements with provincial dental associations to create a Dominion Dental Council in 1906.³⁹

At the CMA's 1912 annual meeting in Edmonton, retiring CMA president (and Calgarian) Dr. Harry G. Mackid (1858–1916) accepted a motion to appoint Dr. Roddick the lifetime honorary president of the CMA for his work.⁴⁰ The motion was drowned out in a chorus of cheers. In 1914 Roddick was knighted for his contributions to medicine in Canada.

Significant Alberta Figures in Western Canadian Medical Education

The European approach to medical care was brought to Western Canada by the Hudson's Bay Company (HBC) as early as 1668. By 1714, there was a surgeon permanently stationed at York Factory, on the western shore of Hudson Bay.⁴¹ HBC physicians soon discovered they faced waves of European-introduced infectious diseases (smallpox, measles, influenza, and later tuberculosis).⁴² Epidemics, introduced from many different sources, caused widespread death and famine amongst the region's Indigenous peoples. Long-standing Aboriginal beliefs and practices (medicine bundles, shaking tents, chanting sweat lodges, herbal remedies, the burning of tobacco, massages, enemas, bloodletting, and scarification) were patently ineffective against these highly infectious communicable diseases.⁴³ The HBC responded by teaching its physicians and factors to administer smallpox vaccinations, which were of some benefit.

The first Alberta-born doctor was Edmontonian Alexander Rowand (1816–1889), the son of HBC chief factor John Rowand (1787–1854). He graduated from Edinburgh and settled in Quebec City, where he practised as a surgeon and taught medicine for many years.⁴⁴

Drs. John Kittson (1844–1884) and R. Barrington Nevitt (1850–1928)⁴⁵ came to the Prairies with the North-West Mounted Police (NWMP), as they marched west from Winnipeg to Fort Macleod, in the North-West Territories (NWT) in 1874; the doctors provided medical care to NWMP members, their families, nearby First Nations reserves, and early settlers during their four-year contracts. Nevitt returned to Toronto in 1878, where he became the long-standing professor and head of surgery, as well as dean of the Women's Medical College at U of T. NWMP surgeon Dr. George A. Kennedy (1858–1913) succeeded Nevitt in 1878. He chaired the NWT Medical Council (which covered the territory that would become Alberta and Saskatchewan in 1905) and inspected NWT hospitals receiving grants from the territorial legislature.

In 1883, thirteen Winnipeg physicians, including Dr. Robert G. Brett (1851–1929),⁴⁶ established the proprietary Manitoba Medical College (MMC), the first Canadian medical school west of Toronto. Although he moved to Banff—a thousand miles away—where he built the Brett Sanatorium in 1886, Dr. Brett kept his MMC professorships in obstetrics and gynecology and *materia medica* and returned periodically to Winnipeg to teach.

During the hundred-day North-West (Riel) Rebellion of 1885, which centred on Aboriginal and Métis land claims, loss of buffalo, and unsigned treaties, Deputy Surgeon General and Senior Field Surgeon Dr. Thomas Roddick (1846–1923)—who, as we saw, presented the original proposal for a Dominion Medical Council—moved forty-three physicians from Manitoba and Eastern Canada across provincial boundaries to provide care and treatment in hospital tents to several hundred of the five thousand troops sent to the NWT.⁴⁷ In legal terms, this was possible only because the NWT had no effective licensing act for registering physicians—a fact that underlay Roddick’s desire for a nationally recognized medical examination.

Dr. Frank Mewburn (1858–1929) was the resident physician at the Winnipeg General Hospital during the rebellion.⁴⁸ He moved to Lethbridge in 1886 and became a self-taught (from textbooks and personal experience) surgeon. Receiving a fellowship in the American College of Surgeons (FACS) in 1913, he moved to Calgary to practise surgery on a full-time basis. Because of his age (fifty-six), he was refused enlistment after the outbreak of the First World War, so he travelled to Britain to enlist; he subsequently became the head of surgery at the No. 1 Canadian General Hospital at Taplow, where four future heads of surgery worked under him. Dean Allan C. Rankin (1877–1959)⁴⁹—like Mewburn, a McGill graduate—appointed him the first professor of surgery at U of A, a position he occupied from 1922 to 1929.

Elected to the NWT legislature in 1888, Dr. Brett introduced the second ordinance to

govern medical registration in the territory.⁵⁰ It established the College of Physicians and Surgeons and the Medical Council of the NWT. Dr. Brett served as the latter body’s first chairman.

Completion of the Canadian Pacific Railway on 7 November 1885 brought waves of immigrant ranchers and farmers to the Prairies. New physicians came at a ratio of roughly one for every one thousand new arrivals.⁵¹ Now safer, Dr. William Osler, came west with his brother in the summer of 1886.⁵² The CMA followed suit, holding its annual meeting west of Toronto at the new Banff Springs Hotel in 1889.⁵³ Of the eighty-nine physicians in attendance, sixteen were from the NWT. The first papers by Prairie physicians were submitted to the conference by Drs. Kennedy and Augustus Jukes (1821–1905). They focused on endemic fever (later known as typhoid fever) at the NWMP forts.⁵⁴

Although there were only 7 registered physicians in the entire NWT in 1887, by 1900 there were 7 in Calgary alone. The number of Calgary physicians rose to 40 by 1906, the year after Alberta and Saskatchewan became provinces, and 90 by the outbreak of the First World War—this for a population of 44,000. The number of Edmonton physicians rose steadily too, from 4 at the beginning of the 1890s to 13 in 1902 and 114 by 1914.⁵⁵

A Faculty of Medicine Begins at U of A in Edmonton in 1913

Medical education in Alberta was dramatically affected by two political events: Edmonton's designation as the provincial capital after the creation of the province in 1905, and the choice of the city of Strathcona—across the North Saskatchewan River from Edmonton but represented by Premier Alexander C. Rutherford (1857–1941)—as the site for the University of Alberta in 1907.⁵⁶

In 1912, CMA president Dr. H. G. Mackid, in his retirement speech, predicted that “[if we] give the west a little more time . . . she will yield a rich harvest of energetic and trained men who will have in them that invaluable dash of western originality.”⁵⁷

A year later, U of A president Dr. Henry Marshall Tory (1864–1947) created a premed plus two-year MD program.⁵⁸ Most of the students finished their last two years of clinical training at McGill or U of T. It was extended to a full four years in 1921 and would be the only four year medical program created in Canada between 1883 and 1946.

Three physicians would leave Southern Alberta before 1923 to join the U of A Faculty of Medicine: the youthful Dr. Heber Moshier (1890–1918), as superintendent of the Strathcona hospital and teacher of physiology in 1913; Dr. Frank Mewburn (1858–1929), as the first professor and head of surgery; and Dr. Harold H. Orr (1889–1952), who ran the postwar “social disease” (or VD) clinic. He became the faculty's skin disease specialist, and the CMA president in 1952.⁵⁹

The high enlistment rate in Alberta halved the number of physicians in the province during the First World War.⁶⁰ They returned slowly, despite the Spanish Flu epidemic reaching the province in October 1918. When the government agreed with Dr. Tory's claim that more physicians would stay in Alberta if they graduated in Alberta, a \$1 million medical school was built in 1920–1; Dr. Allan Rankin (1908–1968) was appointed the dean in 1920 (he was already the director of the provincial laboratory), and the program was extended to four years, with the first graduates in 1925.

Fortuitously for Dr. Tory, the Rockefeller Foundation offered grants to acceptable Canadian medical schools in 1920. He aggressively sought and secured a conditional \$500,000 grant for the university.⁶¹ Dr. Tory would organize three accreditation visits in 1918, 1919, and 1922, before achieving a Class A standing and the release of the Rockefeller grant in 1923. In 1924, the American College of Surgeons also accredited the University of Alberta Hospital (UAH) hospital as a training centre.⁶²

Little of significance happened until 1956, when the accreditation survey downgraded the U of A medical school to provisional status because it had only one geographic full-time (GFT) professor. The infusion of government funding increased the number of GFTs to 19 by 1959 and initiated the U of A's first “golden decade” in medical education.⁶³ It was just in time for the postwar baby boom, and the increase in the percentage of grade 12 students going to university. Enrolment rose so quickly from 1960 to 1965 that the U of A

was able to double its first-year medical student class from 60 to 114, before it began turning away many suitable students.⁶⁴

With the future in mind, in 1962 U of A dean Dr. Walter Mackenzie (1909–1978) articulated his view that unifying the faculties of medicine, nursing, physiotherapy and occupational therapy, pharmacy, and dentistry with the teaching hospital (UAH) had academic value.⁶⁵ He also concluded that the maximum number of medical students the U of A could enroll each year was 120.

Mackenzie's view was echoed in a report submitted to the Hall Royal Commission by Dr. J. Arthur MacFarlane (1894–1966) in 1964.⁶⁶ With support from the federal Health Resources Fund (HRF),⁶⁷ Dr. Mackenzie began implementing the Health Science Centre concept by building a clinical sciences building (opened in 1969), and basic medical science building (opened in 1972), next to the Walter C. Mackenzie Health Sciences Centre (opened between 1978 and 1982).⁶⁸

Medical Education in Calgary Begins to Catch Up to Edmonton

With physicians left to their own devices, the Calgary Associate Clinic—formed in 1922 with the primary aim of attracting specialists—began in 1926 to hold continuing medical education luncheons at the nearby Palliser Hotel; these were organized by the clinic's founder, Dr. D. Stewart Macnab.⁶⁹

Although an internship was voluntary and not mandatory for registration in Alberta until 1941, no interns came to Calgary until 1937, when one came to the Holy Cross Hospital (HCH), the preferred hospital of the Associate Clinic.⁷⁰ Increasingly popular, by 1951 HCH was accepting 5 interns, with that number increasing to 8 by 1960 and 12 by 1966. It became a prized internship, as there were no residents.⁷¹

Dean Rankin of the U of A asked the Calgary General Hospital (CGH) to take interns in 1934. The offer was declined. The CGH remained the only hospital in Canada with over three hundred beds and no interns.⁷² In 1945 the CGH applied to the Canadian Intern Placement Service for approval to train interns. Approval was conditional on the hospital's ability to organize medical staff into departments (medicine, surgery, etc.). Implemented, in 1949 the CGH received its first couple of interns. The number increased to seven in 1952, although only one was a Canadian graduate. A year later, the new head of pathology, Dr. George Elliot, initiated ward rounds and clinicopathologic conferences in the newly expanded 626-bed hospital. By 1955, the hospital was accepting 17 interns from across Canada. One-year residency programs were approved that year in pathology, radiology, and anesthesia.⁷³

Several one-year programs were also approved at other health facilities in Calgary, including the Colonel Belcher (for surgical and medical residents from 1945 to 1970), the Baker Memorial Sanatorium in thoracic surgery (1949–58) and internal medicine, the Alberta Children's Hospital

(orthopedics, 1961 to the present), the Calgary Provincial Laboratory (pathology, 1957–70), and the Provincial Guidance Clinic (psychiatry, 1966–72). All except the Alberta Children’s program were discontinued when the Royal College required university affiliation agreements by 1970.⁷⁴

A significant step forward in postgraduate education occurred in 1964 when Dr. John Corley submitted a proposal to the Canadian College of Family Practice for a pilot three-year family practice residency training program at the CGH. After the proposal was accepted, twelve residents started in 1965.⁷⁵ The program was reduced to two years in 1968, after Dr. Charles Awde succeeded Dr. Corley and became the jointly (university/hospital) appointed program director. His appointment followed the CGH medical staff’s narrowly approved decision to affiliate with the U of C faculty in 1968.⁷⁶

The proposal for a university in Calgary was repeated reviewed during the province’s first half-century. No one recommended there be one.⁷⁷ That left Calgary with only three academic programs: for teachers, for technicians, and for art students. Another request came during the province’s fiftieth anniversary in 1955, when the Calgary City Council asked again that the question to be addressed. The government responded by purchasing 350 acres of land in northwest Calgary. The first building on the new campus began with a sod turning by Minister of Public Works Fred Colborne in 1959. On 28 October 1960, the site was officially designated as the University of Alberta at Calgary, though not as a separate university. By

1961 the enrollment of 1,500 students in arts and science and engineering, was increasing by 25 per cent per year.

In 1963, a plebiscite by the student union for full university autonomy was supported in a four-to-one vote. The U of A Board responded in 1964 by creating a General Faculty Council and Senate in Calgary, under President Dr. Herbert S. Armstrong, although he remained responsible to the U of A Board in Edmonton. In 1966 the U of C became a fully autonomous university, under the newly created Universities Commission.⁷⁸

By 1964, Calgary was the largest city in Canada and the third-largest in North America without a medical school. With a 1966 metropolitan population of 338,700, Calgary was also the fastest-growing city in the country. And yet, it was still without its own university or faculty of medicine. Despite additions made to the CGH in 1953 and 1959, hospital waiting lists were rising dramatically, reaching 5,600 by 1960. The government responded in 1959 by approving a new hospital, the Foothills Hospital, in St. Andrews Heights, in northwest Calgary, on an 83-acre site one kilometre southwest of the U of C campus. Initially planned as a general hospital, within a decade it would transition to become the primary teaching hospital for the faculty of medicine.

1

The Foothills Hospital

In 1959, Health Minister Dr. J. Donovan Ross (1911-1984)¹ appointed nine Southern Albertans to the board of the newly commissioned Foothills Hospital under Chairman James C. Mahaffy (1905-1986), a former Liberal Party leader and Alberta oilman.

With a plan for 766 beds, the Foothills Hospital was the largest hospital ever built at once in North America. It was created under a new act, the Provincial General Hospitals Act.² The hospital would take almost ten years to build and fully open. As the surgical waiting list continued to increase, the government approved another hospital, the 200-bed Rockyview Hospital, in 1962. Located in southwest Calgary, it opened in October 1966. The government also rebuilt the 320-bed HCH, which opened with 491 beds in 1967.³

At the official Foothills Hospital sod-turning ceremony in 1960, Health Minister Ross suggested the hospital would potentially be involved in postgraduate teaching. CMA president Dr. MacGregor Parsons (1906-1974), of Red Deer, added his hope that it would become a medical institution for teaching and research.⁴

One of the first decisions of the new board was to appoint L. R. (Reg) Adshead (1909-2000), an accountant and at the time the CEO of the University of Alberta Hospital as its consultant and then hospital administrator.⁵

In 1961, Minister Ross asked the hospital's board to appoint geographic full-time medical department heads, as they had at the UAH.⁶ At that time the board did not expect that a medical school would be built in Calgary until the early 1980s.⁷ However, by 1963 the board, anticipating a possible advancement of this timeline, made several last-minute modifications to the hospital. Quarters for on-call interns were added. Departmental offices and examining rooms were placed on the appropriate clinical floors. While no seminar rooms were included, a large auditorium was added.

A difference of opinion over the role of the hospital arose in April 1964, when Minister Ross stated that the Foothills Hospital should be a general hospital, with 80 per cent of its patients coming from Calgary. Mr. Adshead saw it as a specialized referral hospital for Southern Alberta, one that would eventually become a teaching hospital.⁸ These differences were settled when Minister Ross attended the Foothills Hospital Board meeting on 14 May 1964 and agreed the hospital should serve both functions.⁹

With the completion and approval of a set of medical staff bylaws in early 1966, the Foothills Hospital Board converted the interim MAC, appointed on the recommendation of the Alberta Medical Association (AMA) and Calgary Medical

Society (CMS), into a permanent one, as full-time department heads were appointed.¹⁰ In accordance with the original directive from the health minister, the hospital was to have family practitioners on staff and not be a “closed” hospital with only academic appointments. A department of family practice was established, with Dr. Tom Saunders (1921-2008) appointed as its part-time director, on 10 January 1966.¹¹ This department became the largest in the hospital, with its members initiating up to 40 per cent of the hospital’s admissions. It also provided the staff to cover the emergency room.

On 10 June 1966, Premier Ernest Manning (1908-1996) formally opened the hospital. However, the premier’s promise that the dean of medicine would be a member of the Foothills Hospital Board was not implemented. Instead, Minister Ross appointed a Liaison Development Committee (LDC) on 10 October 1966, with representatives from the university, the Foothills Hospital, and the government.¹² The minister attended the first LDC meeting to give it direction, noting,

“There shall be optimum use of the Foothills Hospital land for the basic and medical science buildings, a mental health facility and in future, an auxiliary hospital, cancer centre, provincial lab and inpatient TB unit . . . [and] very substantial emphasis shall be placed on the development of good family practitioners.”¹³ Before year’s end, Minister Ross approved a new residence for hospital staff and medical house staff.

From 1966 to 1970, the Foothills Hospital, the university, and the Faculty of Medicine were remarkably successful at meeting a succession of interrelated deadlines. The hospital successfully opened (1966), became accredited (1967), accepted its first interns (1968), and welcomed its first residents in anesthesia and radiology (1969). The hospital was then re-accredited (1970), while the faculty was provisionally accredited (1970), accepted its first medical class (1970), and clinical clerks two years later in 1972.¹⁴

The Foothills Hospital Board continued until 1994, when all 250 hospital boards in the province were merged into 17 regional health boards.

The Alberta Medical Association Takes the Initiative

The shortage of Alberta-trained physicians was informally discussed in medical circles throughout the 1950s. Several approaches were contemplated, including enlarging the enrollment of the U of A medical faculty, increasing the size of the first two years of basic medical science classes to supply enough students for clinical training at Calgary and Edmonton, and establishing a separate medical school in Calgary.⁷⁹ Not all of Edmonton's physicians supported a second medical school in Alberta. Some feared funding for the U of A faculty would be curtailed to support a second school.⁸⁰

In the late 1950s there was a shortage of qualified medical student applications and thus no reason for the U of A Board to apply to the government for a second medical faculty in Calgary.⁸¹ Still, Edmonton represented a reservoir of exceptionally well-trained faculty, as the U of A's Faculty of Medicine was, by the mid-1960s, deemed to have "matured."

The request for a medical school in Calgary was formally raised during Dr. Hugh A. Arnold's (1910–1998) May 1963 tour as president-elect of the AMA.⁸² The AMA Board was interested, and turned the idea over to its Education Committee as a "continuing project." That fall, the subcommittee concluded that "the Foothills Hospital must inevitably concern itself with medical education because the university will grow and [the two institutions—the hospital and the university] are close together. Further, the hospital should come

under the U of A and operate in relation to the University of Alberta in the same way the University Hospital does in Edmonton."⁸³

On the recommendation of Health Minister J. Donovan Ross (1911–1984), the Calgary Medical Society had appointed an advisory committee in 1962 in an attempt to link the Calgary medical community with the Foothills Hospital, then still under construction. Two years later, in February 1964, the Foothills Hospital Board accepted the advisory committee as its interim Medical Advisory Committee (MAC).⁸⁴

The AMA's Education Committee, now chaired by the head of radiology at the UAH, Dr. Hector Duggan (1916–1989), recommended in April 1964 that the Foothills Hospital "become a nucleus for teaching," and that it "give preference to those applicants for departmental posts who demonstrate an interest in medical education and all its aspects."⁸⁵ The AMA Board agreed and offered the services of the Education Committee to assist in the search for full-time department heads, which Minister Ross had agreed to fund.⁸⁶ The Foothills Hospital Board accepted the AMA's offer.

The Calgary medical community, through the Calgary Medical Society (CMS), objected to the appointment of full-time salaried department heads, as the Foothills Hospital was not a teaching hospital.⁸⁷ The release of the Royal Commission on Health Services report in June 1964, which recommended there be a medical school in Calgary, removed these objections, as the Foothills Hospital was seen as the logical

place for future clinical teaching to take place.⁸⁸ The Calgary Medical Society, which counted over 300 of Calgary's 476 physicians as members, gave its support to the new medical school in September.⁸⁹

The Royal Commission on Health Services Calls for a New Medical School in Calgary

Prompted by a baby boom and a rising immigration rate, the federal government established a Royal Commission on Health Services—later known as the Hall Commission, after its chairman, Saskatchewan Chief Justice Emmett Hall (1898–1995)—in 1961. Its mandate, in part, was

to inquire into and report upon the existing facilities and the future need for health services for the people of Canada and the resources to provide such services, and to recommend such measures, consistent with the constitutional division of legislative powers in Canada, as the Commissioners believe will ensure that the best possible health care is available to all Canadians.⁹⁰

To this end, the commissioners contracted with Stanislaw Judek (1916–2007), the professor of economics at the University of Ottawa, and Dr. Joseph Arthur MacFarlane, the retired dean of

medicine at U of T, to study Canadian medical cuts in medical school enrolments and education, respectively.⁹¹

Judek determined that the number of physicians graduating in Canada each year was 800, of which approximately 120 emigrated to the United States. For every doctor leaving for the United States, an estimated 2 immigrated to Canada from other countries (120 doctors per year were coming from Britain alone). Canada was neither self-sufficient nor able to provide enough physicians for the projected population increase or meet the higher demand arising from public funding for physician services. Judek found the Canada-wide doctor-patient ratio was 1:857; in Alberta, that ratio was 1:982. Specialization was already leading to physician urbanization as the physician-patient ratio in Calgary (1:843) and Edmonton at (1:586) demonstrated.⁹²

To meet the anticipated growth in population—projected to rise to 35 million by 1993—and to maintain the current physician-to-population ratio, the Hall Commission recommended the annual number of medical-school graduates be doubled to 1,600.⁹³

When the commission released its report in June 1964, it recommended as possible sites: Sherbrooke in Quebec (then already underway), McMaster in Hamilton (under discussion), Sunnybrook in Toronto, Calgary in Alberta, Moncton in New Brunswick, St. John's in Newfoundland, and possibly Victoria in British Columbia.⁹⁴ A minimum of 780 new faculty, or roughly one new faculty member for each new graduating student,

would be required. Of this number, 282 would be basic scientists and 488 clinicians.⁹⁵

To meet the Hall Commission's projections, in 1965 the federal government created the \$500 million Health Resource Fund (HRF) in an attempt to expand existing medical schools and to build four new ones. The commission also recommended that a national, or "universal," health insurance program be instituted. That recommendation was adopted by the Pearson government in 1968 and by 1971 it had been implemented on a 50/50 cost-sharing basis. Known as Canadian Medicare, it provided universal, tax-backed hospital and medical care for every Canadian, which was predicted to further increase the demand for physician services.

In September 1964, Calgary Medical Society president and future AMA president Dr. Hal C. Worrall (1918–1998) voiced his support for a possible medical school in Calgary. The medical director of the new Foothills Hospital, Dr. John Phin (1931–2010) agreed, noting that the hospital was being designed to support health-care training.⁹⁶ In October, Dean Mackenzie of U of A "suggested that immediate planning for a Calgary medical school should be undertaken, as the U of A was rapidly approaching its enrollment limit."⁹⁷ AMA president Dr. Don McNeil then formed a special committee to meet with U of C president Dr. Herbert S. Armstrong; its members were surprised to find that Dr. Armstrong was now sympathetic toward the possibility of a school, but first wished to have a reputable committee assess the question.⁹⁸

On 8 May 1965, the AMA Education Committee formally endorsed the Hall Commission's

call "for the establishment of a medical school in Calgary." An increasing number of Albertans were embracing the idea, as expressed by Frank Swanson (1918–1990), the long-standing editor of the *Calgary Herald*: "A medical college in Calgary is no mere status symbol to be sought after. It is a necessary asset which ought not to be denied."⁹⁹

The MacFarlane Report

In the spring of 1965, Dr. Armstrong appointed an international committee chaired by Dr. J. Arthur MacFarlane (1893–1996)¹⁰⁰ to study "The Feasibility of Establishing a Medical School in the University of Alberta at Calgary." MacFarlane was joined by Sir Charles Illingworth (1899–1991) of Glasgow and Dr. George Wolf of Boston, both noted medical educators.¹⁰¹

The MacFarlane committee visited Calgary from 7 to 11 June 1965. During a critical meeting with twenty-two Calgarians representing the local medical and academic communities, Dr. MacFarlane asked if they wanted a faculty of medicine. No one dissented, which rather surprised him.¹⁰² The committee also met briefly with members of both the Foothills Hospital Board and MAC, where the commissioners suggested the following: the prime teaching hospital should be controlled by the university; any developments made at the Foothills Hospital should be in conjunction with that institution; the dean and another member of the university should be appointed to the board and the Provincial General Hospitals Act changed, if necessary; and the MAC's recommendations to

the Foothills Hospital Board should pass directly to it, so the administrator does not inject his own bias and problems.¹⁰³

The committee then travelled to Edmonton, where it interviewed government and U of A officials and received the same response. No one disagreed with the recommendation.

The AMA Committee on Education completed its demographic research on the need for another medical school and shared it with the MacFarlane committee.¹⁰⁴ It predicted that the percentage of students in Alberta attending university between the ages of eighteen and twenty-one would rise from 8.2 per cent in 1959–60 to 16.5 per cent in 1970. University enrollment in Alberta had increased from 5,600 (1959) to 12,235 (1965) and was predicted to reach 18,000 (1970).

Further, the registrar of the College of Physicians and Surgeons of Alberta reported that the origins of the doctors practising in Calgary in 1965 broke down as follows: 27 per cent from the U of A, 43 per cent from other Canadian universities, 6 per cent from the United States, and 23 per cent from the United Kingdom and other countries.¹⁰⁵ Alberta's reliance on outside graduates was again underlined two years later by a visiting professor from Britain, who pointed out that in 1966 there were 156 new medical registrants in Alberta, of whom just 38 were Alberta graduates; of the remainder, 72 came from Britain, 22 from elsewhere in Canada, and 24 mostly from Commonwealth countries. British graduates had represented about 40 per cent of the total number of new Alberta registrants over the previous fifteen years.¹⁰⁶ The

demand for MDs was high, and Alberta would need at least 140 graduates per year to fill it.¹⁰⁷

The MacFarlane committee added that “Each department in the basic sciences will require approximately one teacher per 15–20 medical students,” and that “the university must have full control of the appointments.”¹⁰⁸ However, it acknowledged that “the principle issue, perhaps, is in [the prospective school’s] relation to the Foothills Hospital, and whether there should be a new hospital built on the university campus which would be the home base of the medical school.”¹⁰⁹ In its report, the MacFarlane committee recommended that the U of A at Calgary “begin planning for a new medical school in the Province of Alberta and the most suitable site for such a school is the City of Calgary.” The committee further recommended that the university should

1. within the next 12 months seek a suitably qualified dean who would be entrusted with the further planning for a medical school in Calgary;
2. ensure that medicine be an active and integral faculty of the University of Calgary;
3. make provision for schools of Dentistry and Nursing;
4. build a 350-bed hospital on campus with 50 to 100 more beds (if justified by growth);

5. and create closed Clinical Teaching Units (CTUs) at the CGH, HCH, and Foothills hospitals.¹¹⁰

The “triumvirate” or “troika,” as the MacFarlane committee was known, didn’t see the first class starting until 1971 and graduating in 1975.¹¹¹

After receiving the report on 30 August 1965, President Armstrong released it to the U of A Board on September 22, adding, “to say that we are interested [in a medical school] would be the wildest understatement of the year.”¹¹²

Securing Government Approval for a Medical School

The process of obtaining provincial approval for a faculty of medicine in Calgary would not be straightforward. In June 1965, Health Minister Ross had commented publicly that he thought it would be far easier to erect a medical school than it would be to find adequate staff to provide instruction.¹¹³ Dr. Worrall, the president of the Calgary Medical Society, reiterated Minister Ross’s concerns about the lack of qualified staff, adding that Canada was currently short 150 basic medical science teachers to teach the first two years of a traditional program.¹¹⁴

Dr. Armstrong forwarded the MacFarlane Report to the provincial cabinet on October 19. A week later the Alberta government announced that it was willing to establish a second medical faculty at the U of A at Calgary, which would

require an investment of \$25 million.¹¹⁵ The next day, an editorial in the *Calgary Herald* cautioned that “there should be no leisurely approach, or it could be 10 years before a doctor graduated.”¹¹⁶

President Armstrong secured faculty approval for the report’s recommendations when the General Faculty Council (GFC) approved the report on 1 November 1965 and endorsed the MacFarlane committee’s five recommendations, including the controversial construction of a new 350-bed university hospital on campus.

The U of A Board considered the GFC recommendation on November 5 and authorized the establishment of a faculty of medicine “subject to sufficient funds being available,” as a medical faculty would be very costly. Further, it was acknowledged that the dean and faculty had to have jurisdiction over the appointment of medical staff and the admission of patients.¹¹⁷

On 9 December 1965, Health Minister Ross ruled out a new hospital on the Calgary campus.¹¹⁸ The same day, Dr. Armstrong countered that he thought the government’s indirect appointment of senior medical staff from the Foothills Hospital was “unfair.” He said that the dean would make recommendations about appointments. Armstrong did agree that appointments already made by the Foothills Board were acceptable, “so long as they were on the recommendation of the dean. “It helped,” he said, “to have a ready-made faculty.”¹¹⁹

On 11 January 1966, Dr. Armstrong met personally with Premier Ernest Manning and selected cabinet ministers, including Minister Ross. In a subsequent letter to Armstrong dated January 17,

the premier made several important points.¹²⁰ The government was in full agreement with the need to establish a medical school in Calgary. The Foothills Hospital had been designed to be “an integral part of a future School of Medicine in Calgary, [and] should be used as the physical hospital facilities for such a school.” Key full-time medical personnel had already been chosen by the board, with the approval of the provincial minister of health, and with “a view to the need for highly competent instructors in the field of medical education.”¹²¹

Plans for the Foothills Hospital site include a chronic hospital facility for the care of mental patients and a cancer care and treatment centre. The goal was to establish the Foothills Hospital as one of the most complete and modern hospital complexes in the country. “The development of a faculty of medicine,” he said, “should be coordinated with the Foothills Hospital Board, as there needed to be a dean appointed who was in sympathy with this approach.” “The dean,” Premier Manning added, “would approve as members of the faculty, only those whom he was satisfied were fully qualified to discharge their respective responsibilities.” Not all members of the medical staff would necessarily be members of the faculty, and vice-versa.¹²²

Premier Manning said that the government intended for “the Dean of Medicine [to] be appointed as a member of the Foothills Hospital Board.” Further, “the General Sciences building should be an integral part of the university campus while the medical clinic teaching building would perhaps more logically be located immediately adjacent to the Foothills hospital.” Manning

also noted that “it was not the intention that the Foothills Hospital should be a closed hospital,” but that all patients “would be available for teaching purposes.” Further, the new medical school would “recognize the importance of the place [of] general practitioners in meeting the medical needs of modern society. It is not intended that this should detract in any way from the importance of specialization.”¹²³

The premier closed his reply with a note of caution. His second choice, if the above was not acceptable to the university, would be to establish a school of medicine at the Foothills Hospital, which could be affiliated with the university for degree-granting purposes. The letter, most likely drafted by Health Minister Ross, was blunt but far-sighted.

On 11 February 1966, the U of C Board accepted the premier’s terms and agreed to establish a faculty of medicine. Dr. Armstrong then began the search for a dean. The first tangible commitment to the medical school by the provincial government came on March 31 when Minister Ross gave a \$190,000 grant to the U of C to purchase a 14,000-volume medical library from Amsterdam following an international bidding contest.¹²⁴

Selecting the Founding Dean of Medicine

In the spring of 1966, President Armstrong established a dean’s selection committee consisting of Drs. Walter Trost and Don McNeil, five other

U of C faculty deans, and Dr. Robert Macbeth (1920–2014) of the U of A Faculty of Medicine.¹²⁵ On September 9, the chair of the Foothills Hospital Board, Mr. James Mahaffy, was added to the selection committee at the request of Health Minister Ross.

The premier candidate on the short list was Dr. William Cochrane (1926–2017), professor and head of pediatrics at Dalhousie, whom Dr. Walter Trost, the U of C vice-president (academic) called in September to solicit his interest in the position.¹²⁶ At Dalhousie, Dr. Cochrane had been a member of the Special Committee on Medical Education charged with revising the school’s curriculum; as such he had read widely on the topic and had visited medical schools in the United States that were introducing the new body-system-based curriculum. He later noted that despite the committee’s voluminous report, the attempt to progress toward a systems-based curriculum had met with resistance at Dalhousie. Calgary therefore represented an unusual opportunity to make a fresh start.

At the time, Dr. Cochrane was seeking positions throughout North America, and was being interviewed by the University of Manitoba. When the Manitoba selection committee indicated they were not prepared to alter their traditional Flexner-type curriculum, with two years of basic medical science teaching, as such a change would take years to implement, Dr. Cochrane withdrew his application. A prior application by Dr. Cochrane to U of T had elicited the same result.

That left Calgary as the last of the four new medical schools established after the Hall Commission report, and his one remaining deanship opportunity in Canada.

Reflecting on his two Calgary interviews, Dr. Cochrane later explained that he was “impressed with the opportunity to develop a new education program that would start from scratch. . . . I think they wanted something new, but they didn’t want something too different.”¹²⁷ Like McMaster, no basic science departments existed. He thought the idea of a new university hospital was “crazy,” since it would have been the third new hospital in Calgary in six years, and would be located only a kilometre from the Foothills Hospital.¹²⁸

University representatives voiced no objection to Dr. Cochrane’s plan or his desire to be innovative; and of course, there were no traditional or basic medical science faculties or departments to object—they did not yet exist. Dr. Cochrane also realized he would have to educate everyone involved about what teaching medicine by individual body systems meant and entailed. Selecting appropriate faculty would also be a challenge.¹²⁹

During his visits, Dr. Cochrane confirmed support for the school from Dr. Irial Gogan (1920–1983) (the HCH administrator) and Dr. Cobb Johnson (the CGH medical superintendent). As he would later say, “I’d had some forewarning that Mr. Adshead may be less enthusiastic about the medical school having too close of an involvement with the Foothills Hospital. He was running his own hospital and the medical school had nothing to do with his hospital. He’d run it.”¹³⁰



William Arthur Cochrane
OC, MD, FRCPC, FACP, LL.D (Hon)

The Dean Cochrane Years, 1967–1973

Robert Lampard

Even excellent institutions, run by excellent human beings, are inherently sluggish, not hungry for innovation, not quick to respond to human need, and not eager to reshape themselves to meet the challenge of time.

—John W. Gardiner, *No Easy Victories*¹

In the Beginning—There Were Few Faculty

Dr. William A. Cochrane (1926–2017) accepted the offer to be the dean of the U of C Faculty of Medicine on 11 January 1967, just as Canada’s Centennial year began. In press releases at the time, Dr. Irial Gogan (1920–1983), the executive director of the HCH, referred to Dr. Cochrane’s dynamic personality, while Foothills administrator Reg Adshead noted that his appointment would “permit new progress on a long-term plan at Foothills Hospital.”²

Since Dr. Cochrane had already made a commitment to be the visiting professor at the University of Hawaii in Honolulu, he offered to begin his new role on a part-time basis on April 1, and then assume his full-time duties on July 1. Through correspondence with Adshead, Dr. Cochrane agreed to be the acting head of pediatrics at the Foothills Hospital and begin discussing an affiliation agreement between the university and hospital boards.³

During his visit to Calgary and Edmonton in March 1967, Dr. Cochrane held introductory meetings with Dr. Tim Tyler (1922–2017), the dean of social sciences at U of C, with medical staff at the Foothills

Hospital, and with U of A dean Dr. Walter Mackenzie (1909–1978).

On April 22, Dr. Cochrane requested assistance to initiate two selection committees—one for the head of surgery and the other for psychiatry.⁴ Mr. Adshead pointed out there was no agreement yet between the university, the hospital, and the government to fund them.

Instead, an agreement was reached that would allow Dr. Cochrane to appoint Dr. John Dawson, the director of the Department of Medicine at the Foothills Hospital, as associate dean (effective 1 July 1967). Dr. Dawson retained his hospital appointment as the director of medicine until a replacement could be found. Dr. Cochrane immediately delegated to him the responsibility for expanding the CME program, “with particular reference to family practice.”⁵

Dr. Dawson then secured the willingness of the U of A to take over the fifteen CME programs that were planned for Southern Alberta and organize three regional conferences and six on-campus programs.⁶

On 1 July 1967, a year after the Foothills Hospital opened its first beds, Dr. Cochrane took up his post full-time, promising to use the Foothills, HCH, and CGH hospitals for undergraduate and postgraduate medical training programs. Looking to the future, he concurred with Premier Manning’s decision that the medical school should be next to the Foothills Hospital—“locked right into it,” as he would put it.⁷ Initially, he predicted that the first class would have over forty students and would start on 1 September 1971.⁸ Dr. Cochrane

also predicted that 100 faculty would be on board by the time the school opened. His initial projections were for 10 clinical faculty in 1968–9, increasing to 25 in 1969–70, 33 in 1970–1, and 50 in 1971–2. The clinical instructors would be matched by an equal number of basic scientists.⁹

The Philosophy and Program of the School

The curriculum Dr. Cochrane had in mind when he arrived was a three-year, system-based, continuously taught one. The concept had evolved during Dr. Cochrane’s two years on the Committee on Medical Education at Dalhousie (1964–6).¹⁰ The committee, which included future U of C faculty member Dr. A. David Dickson (1925–2018), had concluded that changes were coming in the way medicine was taught. During the committee’s curriculum research, Dr. Cochrane also became intrigued with the value of an ongoing curriculum evaluation program, after Dr. George Miller released his book on medical education evaluation in 1962.¹¹

Before releasing its report, the committee had Drs. George Miller, J. Alan Gilbert (1918–2003) of the U of A, John Evans of McMaster (1929–2015), and Alice Stewart (1906–2002) of Oxford visit and critique it. It was not the first Canadian interest in a systems-based curriculum. Dr. Wendell Macleod had suggested it for the four-year program at the University of Saskatchewan in 1956.¹²

Dr. Cochrane realized that the Western Reserve approach in Cleveland¹³ would need to be adapted to fit what he wanted. As he would later explain, “I was aware of the three-year programs which had been initiated in certain centers in the United States and had also discussed [it] on a number of occasions with Dr. John Evans at McMaster [to understand] the type of program they were developing. As a consequence, certain objectives were utmost in my mind.”¹⁴ As there were no basic science departments, Dr. Cochrane needed to create them in anatomy, biochemistry, and physiology.

Dr. Cochrane’s desire was to expose students to patient care early, and to reverse some of the US-bound brain drain through faculty recruitment. “The focus” he said, “would be on family practice—the social and psychological, childhood and geriatric, chronic and conventional diseases problems it faced, and [to] give instruction on maintaining and improving health.”¹⁵ His desire was to elevate family practice (FP) to a specialty level by introducing a two-year post-MD training program. He acknowledged that “there may be flaws in the initial program,” but he sought to counter these by evaluating the undergraduate program and using the information to upgrade the curriculum and avoid it becoming rigid.¹⁶ “The faculty,” Cochrane said, “would seek to fix the weak points and capitalize on the strengths of the program. Graduates would be encouraged to return for refresher courses.” In the Oslerian tradition, Dr. Cochrane expected that students would

learn how to learn, and thus become students for the rest of their lives.

In press interviews, Dr. Cochrane repeatedly reiterated that the medical school would foster a team approach to health care. Students would be responsible for much of their own study time. Clinical practice would be introduced through problem-solving techniques. The location of research laboratories and scientists nearby would encourage students to learn what was happening on the frontiers of knowledge, as he termed it.¹⁷

Students would be taught a “core” of medical material, which Cochrane defined as the essential information needed to practise medicine not learned in pre-medical studies, or as a clerk, intern, or resident. This would be supplemented by the development of critical thinking and the application of problem-solving processes. “Sound habits of learning,” Cochrane said, “were paramount and must not be dominated by the memorization of ill-sorted facts.” The curriculum would not be copied from anyone else and would avoid inheriting the traditional approaches to medical education utilized in the past fifty years.¹⁸ Since medical knowledge was “doubling every ten years—some say seven years,” he knew it would be a challenge for the planners of the new U of C medical school to define what was to be taught as core medical knowledge.¹⁹

To entice a wider range of students, Dr. Cochrane planned to avoid mandating a list of pre-medical courses. Instead, there would be suggested courses with exceptions allowed for promising students with unusual or atypical backgrounds.

These changes, Cochrane hoped, would allow the faculty to “turn out a completely new type of physician.”²⁰

Realizing there was no published philosophical statement to support such a program and guide planners and architects as they designed a new medical school, Dr. Cochrane began drafting one.²¹ He presented his philosophy and plan at the annual APMC meeting in October 1967. In his plans, the new school would not only incorporate the basic structural elements of medical education (auditoriums, a library, seminar rooms, laboratories, etc.), but would also have research space, an office-type ambulatory care center, as well as a twenty to thirty-bed investigation unit.²²

Dr. Cochrane’s philosophical and program statement was published in the 9 March 1968 issue of the *Canadian Medical Association Journal*.²³ Its appearance increased awareness of the school and was helpful in recruiting and selecting faculty, as potential candidates gained a clearer idea of what joining the faculty meant.²⁴

The undergraduate medical program he outlined would run for three years, with one month of vacation per year. Instruction in the seven body systems would be completed in two years. A significant amount of elective time for investigating areas of future interest within medicine would be available to the students. The third year would be devoted to a departmentally organized clinical clerkship. The total academic time would match that of the traditional four-year medical school program and would follow the objectives Cochrane had already identified.²⁵

An emphasis would be placed on ambulatory programs, as opposed to strictly in-hospital programs, since 90 per cent of the patients seen in practice are “vertical” rather than “horizontal” (in a hospital bed). Dr. Cochrane elaborated on other needs in the program. They included giving FP a place of equal prominence *vis-à-vis* the traditional specialties; forging a close working relationship between the ambulatory clinical area, the laboratories, and medical research facilities; introducing students to patients early so they understood the reasons for learning about clinical care; graduating physicians who could critically analyze information and were trained in problem-solving and self-education; integrating basic and clinical information; identifying the “core” material to be taught and developing a curriculum marked by experimentation, flexibility, and dynamism.²⁶

Dr. Cochrane planned that U of C graduates would receive a conditional MD subject to a minimum of two years of further residency training. Although they signed an agreement to do so, the first graduates successfully challenged that requirement by confirming that the College of Physicians and Surgeons of Alberta (CPSA) would accept applications for licensure in Alberta after a one-year accredited internship in any province. (The CPSA approved the two-year requirement “in principle” in 1972 and implemented a two-year pre-registration training requirement starting in January 1976.²⁷)

By January 1968, Dr. Cochrane was receiving inquiries from as far away as Australia about the medical school’s proposed curriculum and

preliminary structural plans. In conversation, he expressed his confidence that several Canadian teachers might be willing to return to Calgary.²⁸

When asked about the future of medical teaching, Dr. Cochrane noted that computer diagnoses were coming; indeed, he imagined that they would eventually be available in shopping centres.²⁹ Photographic and optical imaging techniques were giving better insight into the inner workings of the body. New radiographic scanning technics would allow students to do “more than [just] play around with a couple of rabbits.”³⁰ Diagnoses could be made from hundreds of miles away using telemetry, as was already occurring with electrocardiograms (ECGs) and electroencephalograms (EEGs). Quicker in-patient investigation would reduce the length of hospital stays.³¹ Dr. Cochrane did not believe that the family doctor would pass the way of the “dodo bird”; he envisioned them instead as the director of the treatment team.

In March, Dr. Cochrane went to Mexico City for three weeks, where he was a speaker and visiting professor. On being questioned about the Calgary curriculum, Dr. Cochrane stated that a committee would create it. The role of traditional departments and divisions would become blurred. Basic medical sciences would be taught as tools, which might make teaching more difficult for the faculty but would also make it more interdisciplinary.³²

Dean Cochrane was careful to call the medical sections within the faculty “divisions” and not “departments,” as they were called in the hospital. This allowed him to shift funds and faculty within or between divisions without having to first secure

vice-presidential approval, as was mandated for departments under the university’s act. “Divisional status,” he said, “would also lead to less of a silo mentality in the faculty as the curriculum and medical research would be body-system based, developed by an interdisciplinary committee.”³³

On 1 April 1968, a preliminary affiliation agreement between U of C and the Foothills Hospital was finally signed.³⁴ It replaced the three-party Liaison Development Committee with a bilateral Joint Liaison Committee. There were to be three representatives from each institution on it. The purpose of the committee was to address issues of mutual concern, like the joint appointment of the professors and heads of the clinical departments and the establishment of Clinical Teaching Units (CTUs), where learning under supervision in a controlled academic environment would be possible.³⁵

A similar hospital-university agreement was forwarded to the CGH for review, where it was cautiously supported by the medical staff. The HCH signed an affiliation agreement too, but it was not implemented until 1974 following further revisions. Dr. Cochrane felt it was premature to involve the two-hundred-bed Rockyview Hospital.

The First Professors and Heads Join the Faculty

Along with Associate Dean John Dawson, five division heads had been appointed by July 1968: Drs. David Dickson, morphological sciences or

anatomy; Stanley Rowlands (1918–2006), medical biophysics; Lionel McLeod (1927–1994), internal medicine; John Read (1926–2004), community medicine; and Tom Saunders (1921–2008), family practice.

In an interview conducted shortly after his arrival, Dr. McLeod expressed his support for Dr. Cochrane’s attempt “to foster a close relationship between highly specialized physicians in the academic world and family practitioners.” Conversely, McLeod felt that teaching specialists, and those who require a more generalized knowledge in family medicine at the same time, would present a challenge.³⁶

Dr. Cochrane predicted that solo FPs in rural parts of the country would be pulled back into nearby small-town groups. In practice, the family doctor would become the director of a treatment team.³⁷ To reinforce the important role of FP in the curriculum, the director of FP at the Foothills Hospital, Dr. Tom Saunders, was made an associate professor and head of the FP division in March 1968. Later that year, Dr. Awde was appointed the director of family medicine at the CGH, succeeding the program’s originator, Dr. John Corley.

Designing the Curriculum

The Committee on Medical Education, later named the Curriculum Committee, began its work in July 1968 under chair Dr. David Dickson, joined by Drs. Keith MacCannell (1934–2019) and Lionel McLeod.

The committee was charged with giving structure to Dr. Cochrane’s philosophical statement.³⁸ It took a pragmatic approach, which was to train a physician who could then be streamed on graduation according to the route he or she wished to follow. The core content of the curriculum was to be the minimum knowledge, ability, skill set, and learned techniques that were needed for FP. In practical terms, this meant passing the Medical Council of Canada national examination.

The committee began by drafting educational objectives for the undergraduate and pre-MD curriculum. They were approved by Faculty Council (FC) on 11 October 1968.³⁹ The planning process that followed was later published in 1989 by Drs. Fisher and Levene.⁴⁰

Body systems were to be taught during the first two years, taking from seven to fifteen weeks each. The third year was to be a forty-four-week clinical clerkship. The choice of up to three one-month electives gave the student the opportunity to pursue areas of interest in greater depth, and guide them toward their career choice. Many chose to take clinical experiences outside the city, province, or country.⁴¹

The committee expanded Dr. Cochrane’s program into a twelve-point, knowledge-based set of objectives for each body system.⁴² Students were to demonstrate their new knowledge in a structured (i.e., supervised) clinical setting or CTU.⁴³ An estimated ten CTU beds would be required for each medical student. There were sixteen skills to be taught and fifteen desirable attitudes each student was to demonstrate toward patients. The “core”

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Training in Family Medicine at the Calgary General Hospital

In the mid-1960s the future of general practice in Canada was uncertain. The Royal Commission on Health Services encountered apprehension about the fate of the family doctor.¹ As more medical students opted for specialty training, there was fear that Canadians would soon have “no one to consult when he knew he needed help but had no idea if it was because of his heart, his gall bladder, or his excessive mortgage payments.”²

When two senior medical students asked Dr. John Corley of Calgary³ where they could obtain good training as a generalist, he “wanted to weep” as he did not know of a single place.⁴ He convinced colleagues on the executive of the Alberta chapter of the College of General Practice they were as “competent as any” to address this need and received their support to raise it at a forthcoming meeting of the national Board of the College,⁵ where a resolution authorizing the Alberta chapter to explore the possibility of creating a residency program in family medicine was passed.⁶

In February 1965, Corley outlined a two-year (subsequently increased to three-year) program that would be offered at the Calgary General Hospital (CGH).⁷ It was loosely based on a general practice training program developed in

Yugoslavia by Professor Ante Vuletić (1899–1977) at the Abdrija Stampar Institute of Public Health in Zagreb.⁸ Corley had visited Zagreb, where he saw that “top medical students can be attracted to the challenge of General (Family) Practice if quality training programs are available.”⁹ Support was subsequently obtained provincially and nationally for a three-year pilot to evaluate its feasibility.¹⁰ A local ad hoc committee consisting of Corley, H. H. (Bill) Black, D. L. G. Howard, H. McEwan, S. Thorson, and W. Walsh, J. (Cobb) Johnston was formed to guide the pilot.¹¹ Core funding was obtained from the Department of National Health and Welfare, while residents would receive hospital salaries.¹² If the pilot was successful, it was anticipated the Calgary Hospitals Board (formerly the CGH Board) would assume responsibility for the program.¹³

In a four-part series, Corley described the program and its implementation.¹⁴ The first of the three years fulfilled current provincial requirements for licensing while the additional two years would make trainees eligible for the proposed certification examination of the college under development. Later, when the undergraduate clinical clerkship year was upgraded, the requirement for a third year for FP Certification was

dropped.¹⁵ The pilot was overseen by the College of General Practice with guidance provided by the University of Alberta Faculty of Medicine.¹⁶ The hope was that it would create a new type of specialist—what Corley called a “medical generalist integrator.”¹⁷

There was less than a year and a half between the decision to establish the residency and the start of training in July of 1966. Volunteers and part-time staff were responsible for the complicated work of planning this new educational program. Corley wanted more preparatory time, but this advice was ignored.¹⁸ Dr. Donald Rice, national executive director of the college at the time, agreed they were possibly too impatient but felt “details of these programs can be constantly modified and improved as experience dictates,” while the alternative would be “further delay and rapid deterioration of the present position of the general practitioner-family physician.”¹⁹ Corley wrote that the gestation of the initial program was “stormy and difficult,” with confusion about the roles and responsibilities of the college and hospital.²⁰ There was no full-time program director during these critical early years. Corley received a half-time appointment for three years beginning in late 1965, but the CGH would only fund a full-time director if the pilot was successful. Corley felt the first year was successful but “the remaining two years of the program leave much to be desired.”²¹ Hospital staff believed a three-year residency wasn’t needed and that their responsibility was to provide a good one-year rotating internship.²² Residents voted with their feet. Of the seven starting in 1966, only one completed all

three years. Corley blamed this on the failure to clearly define the aims of the program.²³ Rice acknowledged uncertainty about the value of certification but also wrote that residents were being encouraged by local physicians to leave early and accept one of the job openings available to them.²⁴ They were reassured that deficiencies in their education could be “overcome through apprenticeship training . . . while earning relatively large sums of money.”²⁵ Rice complained of this “lack of support . . . from a large segment of the general practitioner population.”²⁶ Dr. Wayne Elford, a member of first group of residents, did not complete the full three years. He noted that at the time it was unclear if additional training in family medicine would become the norm, and even if it did, most felt a two-year program would be sufficient.²⁷

Notwithstanding these hurdles, the pilot was considered a success. In 1969 the college held its first national examination in family medicine, and twelve senior practitioners and resident graduates passed.²⁸ Corley chaired the evaluation committee while Black,²⁹ of the planning committee, and Dr. Myron Semkuley,³⁰ the lone Calgary graduate who completed all three years, were certificant.

The University of Calgary had no role in these early developments of the CGH family medicine residency. Dean Cochrane, though, viewed family physicians as the key person in health-care teams.³¹ Graduates of the Calgary medicine program would be “undifferentiated” physicians who would then pursue either a minimum of two years of postgraduate clinical or research training.

Cochrane predicted at least 70 per cent of graduates would opt for family medicine.³² In 1968, the U of C was approached about accepting interns and residents then training in Calgary hospitals, including the CGH family medicine residents, as postgraduate students. For family medicine it was hoped that an integrated undergraduate-graduate program under the direction of the U of C would evolve.³³ A year later, interns and residents, including the family medicine residents, were formally incorporated as postgraduate students of the University of Calgary, though training programs remained essentially under the direction of the host hospitals rather than the university.³⁴ This occurred without Corley.³⁵ Dr. Charles Awde became director of the family medicine training program in 1969, while Corley returned to private practice.³⁶ The college hosted a testimonial banquet for him in Calgary on 15 May 1969. He subsequently became chief examiner for the college and professor and chief of the Division of Evaluation in the Department of Family Practice at the Medical University of South Carolina in Charleston.³⁷

knowledge to be taught was to be based on an understanding of each system in its normal state and under disordered conditions—which could be a named disease, symptom, sign, or complication.⁴⁴

The committee met weekly and became the first standing committee of the faculty.⁴⁵ It delegated the responsibility for developing the actual curriculum for each system to a system subcommittee. Seven faculty subcommittees were set up covering the cardiovascular-respiratory, endocrine-reproductive, gastrointestinal (GI), reticulo-endothelial, renal-metabolic, musculoskeletal, and neurosciences systems. Each system was broken down into units or “core components,” with a unit manager assigned to each one. Subcommittees were also appointed to cover the introductory, continuity, clerkship, and elective courses.⁴⁶

As the documents for each system were received by the senior committee they were assessed for duplication, omissions, material beyond core, or for transfer to another course/system. The order for teaching the units in the system was set. The neuroscience and musculoskeletal systems were merged, while behavioural changes were integrated into the other systems. Dermatology and psychiatry were included as “horizontal” components of the continuity course. The number of weeks for each unit and system was confirmed. The cardiovascular-respiratory system (CVS-R) was the longest, as it included material applicable to all systems.⁴⁷

Few texts to which the student could turn existed at the time, so study guides were prepared

and distributed.⁴⁸ They contained an overview of each system; the topics to be taught; the learning facilities that were available—including those in the multidisciplinary teaching laboratories (MDLs)—the teaching and learning schedule; the best journal and text references, often drug company monographs for the student to search; audio-visual aids; and where applicable, the learning that had to occur in other systems. Clinical problems or cases were selected to test whether the learning objectives had been met.

Teaching the teachers how to teach became a priority. As the faculty numbers were increasing, a five-day retreat was held in February 1970. Its purpose was to examine the plan for the first two years of systems teaching. Even then, only the GI course subcommittee had developed a detailed guide using peptic ulcers as the example. That became the template for each system coordinator to follow. Designing the curriculum would take a hundred meetings and would not be completed until October 1970.

In developing the curriculum there was some contact with McMaster, but it was informal. That institution's three-year program, begun in 1969, relied almost entirely on a combination of problem-based, self-directed learning. Both curriculums sought to decrease the didactic presentations and the requirement to memorize facts while encouraging the application of new knowledge and self-learning.⁴⁹

The teaching of basic or elementary clinical skills required seeing patients in a teaching environment, whether in a family physician's or

specialist's office. That concept coalesced into the need for a clinical office-type ambulatory care setting. Initially, patients were to be seen in faculty family practitioner offices, until the Ambulatory Care Centre (ACC) opened in 1971. Each student was assigned a patient and their family, whom they followed for six months. Since the patient's clinical problem(s) could be in a different body system, the student was encouraged to holistically study the body system involved, as well as the patient and the community setting.⁵⁰

Funding Pressures Were Never Far Away

In the fall of 1967, the provincial government asked for an update on the long-term capital funding requirements for the three Alberta universities. The schools requested a combined \$300 million in capital projects over the next five years. The government had set aside only \$165 million. After prioritizing the replies, the chairman of the Universities Commission, Dr. William. H. Swift (1904–1996), suggested that Calgary could abandon its medical school altogether.⁵¹

Fortunately, members of the Calgary press had already compared the costs of the four medical schools being built using federal HRF money and described the Calgary school as a bargain.⁵² Sherbrooke was predicted to cost \$40 million, McMaster \$68 million, and Memorial \$46 million. While the other schools included a 300–400 bed hospital in their calculations, the Calgary site, at

\$59 million, included the 766-bed hospital Foot-hills Hospital, two residences, a medical school, and would be twice as large as any of the others.

Although Minister Ross had previously suggested a cost of \$25 million for the medical school, early predictions were that it would cost \$30 million.⁵³ Dr. Cochrane made his own estimate of the all-in cost, which he placed at \$20 million, to cover the \$1 to \$2 million ACC building, to open in the fall of 1969, and \$18 to \$20 million for a medical science/clinical research building to open by late 1971. Additional funds would be required to cover equipment and inflation.⁵⁴ An allied health professions building was to follow. To ensure there was support for his “flexible” approach, Dr. Cochrane booked a meeting with Premier Manning. He later reported that “the premier was very helpful and reassuring. That’s why I stayed on and fought the battle and we got the money.”⁵⁵

In January 1968, Frank Swanson, the publisher of the *Calgary Herald*, noted that the Alberta government’s 1968 budget contained \$26.5 million for U of A and only \$16.4 million for all of the U of C.⁵⁶ A month later, on 20 February 1968, a special allotment of \$15 million was confirmed for the U of C medical school, along with \$20 million for a basic medical science building in Edmonton. The Calgary grant was to cover construction costs until 1972. Notwithstanding Dr. Cochrane’s attempts to educate university and government authorities to the contrary, some officials in Edmonton thought that the \$15 million was for a basic medical science building.⁵⁷

Publicly, however, Dr. Cochrane was “just thrilled to death to hear the news,” as he told the *Calgary Herald*. “We are very grateful for this money. It will act as a wonderful incentive, allowing us to proceed with our plans. It’s going to be full steam ahead.”⁵⁸ He also praised the U of C Board of Governors (BOG) for their support.

Architectural Challenges

Immediately following the \$15 million funding announcement, the university contracted with the local architect J. H. Cook (1924–2000) to prepare a preliminary architectural assessment. Cook visited various HRF projects already underway. Five proposals from interested architect/engineering groups were received. Cook and Associates, which included three engineering firms (Rule Wynn, Klassen, and Reid Crowther), were selected as the building consortium on 16 March 1968.⁵⁹

Concerned that Cook and Associates did not have the requisite experience, in May 1968 the government’s architect for Southern Alberta and project director Vic Bathory (1922–2007), asked the university to retain an architectural firm with experience in medical school construction. To this end, U of C selected the Stone, Marraccini, and Patterson firm from San Francisco, which had recently built two American medical schools. Cook and Associates were confirmed as the executive architects on June 4, with the Stone firm to advise them on planning and implementing Dr. Cochrane’s philosophy and program.⁶⁰

In July the faculty appointed a building committee chaired by Dr. John Read to incorporate all the requests for space in the school.⁶¹ To assist the architects, Dr. Cochrane wrote a detailed program for the ACC, as part of his final academic plan and gave it to the architects in October 1968. By this time the plan was for a single structure that incorporated “flexibility and the potential for future expansion to enable changes to take place in the physical layout over the next 10 to 15 years.”⁶²

That fall, Cook visited the new medical schools in the United States and concluded that “no models at present in operation exactly fit our proposed school.”⁶³ To confirm this conclusion, Dr. Dickson spent a month in Europe studying medical schools designs, including a new one at Uppsala, Sweden.⁶⁴ At this point it was realized that a traditional medical school would not be built.⁶⁵ The Stone firm’s Calgary office was closed in the summer of 1969, though for legal reasons their name remained on all the architectural drawings. Incidentally, a similar change in architectural firms had been required at McMaster.⁶⁶

The building committee and architects agreed that the most flexible approach was to build a modular structure. All the utilities would be contained in the equally spaced vertical towers and would be “guttered out,” or extended horizontally, to service each floor. Much of the research space was to be left open for refurbishing later, when the occupant and their specifications were known.⁶⁷

Funding and Locating the Medical School

Frustrated at the funding delays, two days after the new U of C president, Dr. A. W. R. “Fred” Carrothers (1924–1998), was sworn in on 1 February 1969, Dr. Cochrane sent him a summary of the history of the government’s offer to provide capital and operating funds for the Faculty of Medicine, along with an outline of the urgent need for more of both.⁶⁸ He outlined how his 1968–9 budget request had been almost halved to \$256,000 and the 1969–70 budget reduced to \$560,000. Both were further reduced by a medical library grant charged to the same budget. Dr. Cochrane said he could not compete with other medical schools also looking for faculty, nor offer new department heads more GFT help to design the curriculum, let alone to teach it.⁶⁹

The shortage of joint appointment funding through the Foothills Hospital came to a head in December 1968 when Dr. Cochrane wrote directly to the Department of Health to determine its policies and the budget for his appointments. The answer was that funding was only to be “for direct services to the hospital.” The government then capped the amount available to the faculty at \$50,000 (1969) and \$100,000 (1970),⁷⁰ leaving U of C’s funding level substantially below the \$469,000 received by U of A for the same purpose. The faculty responded by reducing enrollment for the first-year class from forty-eight to thirty-two students.⁷¹

Provincial capital funding, already under serious pressure, was further complicated by the federal government's decision to cap the annual release of HRF funds at \$37.7 million for a minimum of two years.

The architectural consultants agreed that the school should be located as close to the hospital as possible, as adaptation for medical teaching at the Foothills Hospital was minimal. The initial proposal was for an east-wing extension of the hospital into the main parking lot; then a high-rise attachment to the west wing of the hospital; and finally a three- to five-story building north of the hospital. This was then offered as the best option and one that would fit the Foothills Hospital Board guidelines.⁷² The "grey area," as it became known, between the hospital and medical school, was to be left for future expansion of the hospital's emergency, ambulatory, or outpatient programs.⁷³ This is where the McCaig Tower now stands.

The Design of the Medical School Is Finally Approved

The final design consisted of a basement along with main, first, and second floors (for a total of four levels). The horizontal orientation of the building brought labs and groups (students, teachers, researchers, and patients) closer together. The library was to be in the middle, near the three-story atrium or mall in the middle of the U-shaped design that opened to the west. The north and south arms of the "U" were connected at the east end by the ACC.

The mall was to bring students and faculty together for TGIF ("Thank God It's Friday!") mixers, important ceremonies, breaks, and get-togethers. There were two MDL labs, a three-hundred-seat auditorium, and two smaller ones holding ninety-six seats each, with an administrative area and a small cafeteria that opened on to the atrium on the main floor. Offices and research space filled in the north arm of the first floor, while the rest of the first and second floors were walled in as future research space. The vivarium and electron microscopy units occupied the basement. To increase the interaction between the students, small carrels or cubicles were built near the MDL. First and second-year students enjoyed the close quarters and the camaraderie this encouraged.⁷⁴

The hardest unit to design was the ACC. Architect Cook and Dr. Read based it on the Mayo and other clinics they had seen, which had reception areas and examining offices but no private offices. One-way glass windows with an observation area were added for selected rooms. The consultant area for seeing and examining patients was designed the same as the FP area and located directly above it. Two walkways at the southeast corner connected the medical school building to the hospital. An eight-foot utility floor above the second floor limited higher connections because the floor spacing in the two buildings did not match.

To compare the building plans, Dr. MacCannell visited the newly constructed \$25 million Case Western Reserve medical school in Cleveland, as well as the Mount Sinai New York City, and Temple and Hahnemann schools in Philadelphia.⁷⁵

They were all favourably impressed with the Calgary plans.

The programs, plans, and architectural drawings for the final academic and educational facilities were approved by the BOG on 26 February 1969 and sent to the University's Commission for approval. The commission requested cost comparisons with similar structures.⁷⁶

Realizing the school building would not be ready for the first class in September 1970, the Foothills Hospital administrator Reg Adshead confirmed that the weight of three more floors could be added to the west (clinical) wing of the hospital. Approved,⁷⁷ the addition was finished in June 1970 and 22,000 square feet of space were leased to the faculty for an MDL, seminar room, research area, laboratories, twenty-one administrative offices, and a medical library/study area. The faculty used the space for its first two classes.

Further progress came in November 1969, when the 132-suite House Staff Residence (South Tower) was opened. The fifth floor was modified for use as offices for FPs and consultants in the faculty.⁷⁸ The practices of faculty family physicians Drs. Tom Saunders, George McQuitty (1916–1979), and Grant Mills were relocated to the building and were initially used for one-month electives for the Foothills Hospital interns.

On 23 April 1969, Health Minister Ross unexpectedly resigned over Alberta's decision to enter the federally mandated Medicare program, a program he viewed as an intrusion into provincial jurisdiction.⁷⁹ The Honourable Jim Henderson, an engineer, replaced Ross.⁸⁰ His unfamiliarity with

the portfolio showed when he said the medical school should only train family practitioners. This drew Dr. Cochrane's ire; he quickly responded that such a narrow focus would be "unfair to the students" and "would make it difficult to attract high caliber staff."⁸¹

More Key Faculty Appointments Are Made

Keith Pearce (1929–2013), the director of psychiatry at the Foothills Hospital, was appointed the professor and head of psychiatry in 1969, just as the government was addressing the Blair report to decentralize mental health services in the province.⁸² On 1 July 1969, Dr. Cochrane resigned as professor and head of pediatrics; he was succeeded in that position by Dr. Gerald Holman (1929–2012), a Manitoba graduate then serving as the chairman of the Department of Pediatrics at the Medical College of Georgia.⁸³ The director of the Foothills Hospital, Dr. Harry Brody, was appointed the professor and head of obstetrics and gynecology in September.⁸⁴

Dr. Cochrane had been searching for someone to provide educational leadership, which would also include teaching the teachers how to teach. To this end, he enticed Lethbridge-born Dr. Lawrence Fisher, a colleague of Dr. George Miller, to move to Calgary to direct the evaluation of the educational program and its participants. Fisher arrived in Calgary to take up his post in February 1970.

Dr. Keith Cooper (1922–2011), whom Dr. Cochrane had met at Eaton College in England, arrived as the head of physiology. Dr. N. Tait McPhedran (1924–2012), an orthopedic surgeon and the team physician for the Toronto Maple Leafs, came from that city in August 1969 to take up his appointment as the professor and head of surgery. Dr. E. J. K. (John) Penikett (1915–2000), an innovative bacteriologist, came as the head of the Foothills Hospital medical laboratory and was appointed to the faculty as well.

The last of this initial group of professors and heads were appointed to the faculty on 4 March 1970. They included Drs. Fred Parney (anesthesia), Hector Duggan (radiology), and Robert Lannigan (pathology/histopathology).⁸⁵

Large Enough to Become Organized

The growing size of the U of C medical faculty, the burgeoning construction program, the designing of the curriculum, and the heavy reliance on part-time and voluntary physician contributions led the faculty to undertake the first examination of its administrative structure in November 1968.⁸⁶ Dr. Cochrane wanted it to be flexible enough to accommodate the changes expected over the next five to fifteen years. The projected number of clinical department heads was nine, all of whom would be based at the Foothills Hospital. The non-clinical department heads, not surprisingly, wished to be close to their research laboratories.

The organizational discussions were not settled until a year later. Dr. Cochrane chose to keep the structure simple by appointing two associate deans (Dr. John Dawson for clinical affairs and Dr. Stanley Rowlands for instructional resources), along with an Executive Faculty Council (EFC). Standing committees were to be responsible through the EFC to the FC and the dean, as was the case for the Division Heads Advisory Committee. To the extent possible, academic policy was to be framed by the FC with the dean and division heads responsible for implementing it.⁸⁷

Other faculty committees had by this point proliferated. There were now twenty, plus the Committee on Medical Education and its subcommittees. Staffing these committees was a huge commitment for the thirty-two full-time faculty members. It required them to rely heavily on the contributions of part-timers and the medical staff who gratuitously volunteered their time. Dr. Cochrane acknowledged this when, as a token of appreciation, he made twenty-four adjunct faculty appointments.⁸⁸ The contributions of the local medical community, he noted, had been invaluable in drafting the curriculum, setting its objectives, and developing the programs to teach each body system.

Funding Is Approved, but not Construction!

After the Academic Planning Committee, GFC, and U of C Board of Governors (BOG) approved the academic program in February 1969, President Carrothers asked board chair L. A. (Chick) Thorssen (1916–1996), an experienced construction engineer, for help. He rigorously went over the rationale, justification, and space required for each area in the school, Thorssen was able to reduce the cost estimate to \$25.7 million. The revised plan was submitted to the University's Commission chairman and former U of A president Andrew Stewart (1904–1990), who replied that an additional \$5 million, to the \$15 million already approved, would be available after March 1972, and that the project-management approach was acceptable.⁸⁹

Not satisfied, Thorssen wrote Health Minister James Henderson (1927–2016) in June requesting the additional \$5 million immediately and for the authority to proceed. Correspondence between Dr. Cochrane, Chairman Thorssen, and Health Minister Henderson became increasingly testy. To resolve these differences, Minister Henderson came to Calgary to visit Dr. Cochrane in early August 1969, where they addressed their “budget difficulties over a case of beer on the Bow River.”⁹⁰ Henderson agreed to the additional \$5 million and accepted the \$25 million figure as a cap on the total cost. The government also approved the faculty's academic plan, unaltered.⁹¹ In the announcement on 19 August 1969, the *Calgary*

Herald acknowledged the agreement by noting that the “medical school gets nod” for a four-story building.⁹² Relieved, Dr. Cochrane noted that his faculty and its programs were “gambling on the future trends in medicine in a school devoid of tradition, with reasonable experimentation.”

However, approval to proceed with construction was not forthcoming. Questions thought already answered—like cost comparisons with a three and five-story construction—were raised. A cabinet committee was struck to review the proposal.⁹³ Even though there was no approval to proceed with construction, the Cana Construction project-management bid was accepted in November 1969.⁹⁴ As progress stalled, the FC recommended that the first-year class size be further reduced from thirty-two to sixteen if construction was not started by 4 February 1970.⁹⁵

Approval—Finally—to Proceed with Construction

Finally the go-ahead for construction was given, and on 2 March 1970, Dr. Cochrane and government officials spent a happy hour turning the sod for the new medical school.⁹⁶ Construction was expected to take thirty months, or one-half the time under the standard all-in tender approach.⁹⁷ In his comments during the ceremony, Dr. Cochrane noted how invaluable Chick Thorssen, chair of the BOG, had been in securing the government's commitment to proceed.

Mid-winter construction started with the digging of the large hole for the basement. The skeleton went up so quickly that it resulted in considerable pressure to finalize the detailed floor plans, as there was little time between the final design of an area, signing off on that plan, and the start of construction. The use of an integrated structural-mechanical-electrical system, with a continuous design-construct plan became well known in North America as the “jet-speed” approach.⁹⁸

Cana Construction turned over the first third of the building, or 180,000 (gross) square feet of space, to the faculty on 13 July 1971. It included both floors of the ACC and some space adjacent to it. Student workspaces and the MDL were opened on 1 June 1972. All construction was finished by September 1972, except for the unfinished research space. The final cost of the building per se was under \$30 per square foot at \$17.1 million.⁹⁹ With site preparations, utility connections, a distilled water system, furnishings, and equipment, the final cost came to \$20.7 million.

Then came the tussle over the surplus capital funds. The university wanted this money. So did Dr. Cochrane—for future renovations. In response to a letter from Dr. Cochrane, Minister Henderson indicated that if the university acquired the remaining funds, he would order them returned to the government.¹⁰⁰ Ultimately, the entirety of the \$25 million grant would be received by the faculty and spent on renovations by May 1977.¹⁰¹

Most of the basement and the entire main, or ground, floor was finished. The library on the

first floor was completed in 1974. The rest of the first, second, and basement floors were assigned to and developed over the next three years by the cardiovascular, endocrinology and pharmacology, infectious disease, hematology, growth and development, neuroscience, immunology (including bone and joint), cell regulation, and radioisotope research units.

Medical Student Selection

At its 30 July 1969 meeting the FC appointed an Admissions Committee to select the first class of thirty-two students to start September 1970. Chaired by Dr. Keith MacCannell, it consisted of ten members, including an intern and one member from the community. Less than half were faculty members.

The Admissions Committee had the power to waive any of the pre-medical requirements, order students to take summer courses, or waive the requirement of the current-year pre-medical course results if the marks would not be received by the application deadline. Applications were encouraged from students with different or unconventional backgrounds. Suggested pre-medical courses were listed in the U of C calendar as chemistry, biochemistry, zoology/physiology, biology, psychology, physics, and statistics.¹⁰²

Selection criteria were based on academic and non-academic qualifications, including grades, letters of reference, interviews conducted to assess maturity, perceived ability to take personal responsibility, motivation, personality,

likely effort, and Medical College Admission Test (MCAT) results, but not race or religion. One or more members of the committee interviewed all applicants from Western Canada. The committee accepted that it had an obligation to prefer Western Canadian applicants, particularly Alberta residents.¹⁰³

Applications closed 31 December 1969, while interviews were completed by February 15. Offers were extended by 15 March 1970, two weeks after the school's sod-turning ceremony. Of the 461 applicants, 32 were selected: 24 were Albertans; 7 were from other provinces and 1 was an American. There were 3 women. Ages ranged from 18 to 36. Seven were selected after two years of pre-medical studies.

When the members of the selection committee rated each applicant on a one-to-five scale, they found a correlation coefficient among each other to be about 0.7, and on a group basis 0.98. On the downside, an annual two-thousand-hour time commitment was required of the committee. Although time-consuming, the faculty felt this careful approach was justified.

In the review of the process, the family practice representative noted that selecting future FPs from the applicant group was not possible. The community member, and future U of C chancellor Muriel Kovitz, thought that the committee was well balanced, sensitive, showed empathy, and dispelled the suggestion that the Faculty of Medicine was a "closed shop."¹⁰⁴

The first class was pampered by having more faculty than students. By then, the word was out:

the U of C medical program was worth serious consideration. For the second class of 48, there were 1,172 applications.¹⁰⁵

The "Rusting" Problem—Medical Research Receives Some Attention

A research program was not an early priority, as actual research space was limited. There was some campus research space, and some on the twelfth floor of the Foothills Hospital after it was leased in the summer of 1970. Significant research bench space was not available until the medical school fully opened in the fall of 1972. Even then, much of the available space was unfinished.

Although an MSc program in medical sciences was approved in April 1969 under the Faculty of Graduate Studies, it was outside the medical school and had to be overseen by an internal interdisciplinary medical sciences committee. The program quickly proved popular.¹⁰⁶

Dr. Cochrane had repeatedly warned that the faculty was rusting, as he called it, with faculty members earning few grants on a campus growing far more rapidly than anyone anticipated. The first faculty had been recruited for their ability to work as a team and organize an undergraduate teaching program. Involvement in research only occurred if they brought projects with them. To bridge the gap until research space became available, Dr. Cochrane identified the "Special Problems facing New Medical Schools" and the need

3

Early Student Reflections

Four hundred students applied for admission to the U of C medical school after learning about Dr. Cochrane's plans for it in 1968.¹ They were excited that, like McMaster, the U of C medical program was brand new, notwithstanding the shortage of basic science courses for pre-medical students. One member of the original class recalled her first interview with Dr. Cochrane:

I was greeted by a grinning, handsome, fit young man with tussled sandy hair, who rose to his height of six feet to offer his hand. He was casually yet elegantly dressed in blue slacks, sleeves rolled up on his light blue shirt. . . . He told me, very proudly, about the new school-to-be. Not only were they going to revolutionize how medicine was taught, they were going to accept a different breed of students. They were looking for whole people who could bring a lot more to medicine than just good marks.²

A year later, on 1 September 1970, Dr. Cochrane introduced the first class of thirty-two students to clinical learning. He presented three patients to them, one of whom had cystic fibrosis.³ They had a profound effect on a number of students.⁴ Dr. Cochrane also emphasized the importance of the new class to the faculty and the medical world writ large; they would be a “guinea pigs in a sense,” as their progress would be watched by many to see if the new teaching methods being used at the U of C were effective.⁵ This presaged the school's tradition of initiating each new class with the moniker of a bird or animal, which would henceforth serve as their symbol.

Just as important for the new crop of students was Dr. McPhedran's presentation of the ABCs of first aid, during which he unveiled a dissected cadaver to demonstrate his points, with memorable effect.

The introductory course focused on bringing everyone to a common knowledge base. The body-system courses that followed all began with a set of learning objectives and a study guide. The parallel continuity course taught related clinical skills and topics not covered under the system-based courses.⁶

The teaching of body systems started with the normal person and how each system was structured, functioned, and could be examined and monitored. Patient presentations of the most common presenting complaints followed. Taking a medical history and performing a physical examination was practised, using skills honed on voluntary “patient actors.” These new clinical skills were then practised in small groups, followed by real patients in clinics and on hospital wards. Problem-solving was taught through the presentation of common symptoms like chest pain, to demonstrate what should be looked for during the interview, physical examination, and laboratory testing.⁷

The continuity course emphasized the school’s mission—to train family physicians. In the Family in Health and Illness unit, each student was assigned to a family or later to a family physician’s office for six months. They were to

learn, first-hand, some of the ways that family interaction and various social, economic and psychological factors influence a family’s “state of health” . . . [and] the ways in which illness affects family interaction. Discussion with fellow students should provide an opportunity to learn about a variety of family experiences with illness. By assuming an increasingly active role in providing care over an extended time, the student will be able to evaluate how effective he can be in modifying the incidence,

perception and understanding of health and disease in families.⁸

Bill Hughson, one of three nineteen-year-olds accepted into the class and later a Rhodes Scholar, found the body-system curriculum to be very dynamic: “You could apply what you had just learned so quickly. It was the most fun I ever had in my life. Teachers would come to the library to find a student and show them an ‘on topic’ patient!”⁹ Lane Robson felt the class “had the best faculty in the country. They taught us to think as a clinician. They wanted us to succeed.”¹⁰ Ruth Simkin added that the school wanted its graduates to be “respectful, caring and loving,” in their practise of medicine.¹¹ George Wyse, a member of the second class, recalled that “There were two elements that particularly appealed to me and that suited my purposes: lifelong learning and self-learning. It also appealed to me that the faculty was committed to continuous evaluation and quality improvement of their novel and experimental medical education program.”¹²

For everyone, the hardest part of the original curriculum was defining the “core” knowledge each student must learn. This was eventually boiled down to the knowledge needed to pass the LMCC exams and to practise as a family physician. As one former student recalled,

You could not know everything about a subject but you were expected to know 100 per cent of the core material. In the first month or two, exams were anonymous and no marks were given. You picked an ID number rather

than use your name. That was a short-lived experiment. Too cutting edge! . . . And some students and even doctors smoked cigarettes in class.¹³

Initially there were two faculty for every student. This led to a very close-knit relationship, with an almost family-like feeling. Dr. Cochrane, whose office was on the main campus, would come to the cafeteria with his bag lunch once a month, just to chat with class members. The students came to admire him and the role model he represented.¹⁴

On graduation, the first class commissioned a portrait of Dr. Cochrane by the famed photographer Yousuf Karsh, which hangs in the dean's conference room.¹⁵ The students evidently enjoyed their time at the U of C medical school. Years later, a survey of U of A and U of C students revealed that Calgary graduates were much more likely than their U of A colleagues to encourage any of their children who chose to study medicine, to do so at their alma mater.¹⁶

for special “start-up” grants to fund new investigators. He shared his opinion with the appropriate agencies.¹⁰⁷

In January 1970, the newly appointed Committee on Research under Dr. MacCannell proceeded to draft its terms of reference.¹⁰⁸ The committee became responsible for coordinating, encouraging, and assessing grant applications; overseeing ethical assessments of grant requests; adjudicating research space requests; assessing potential liability concerns; allotting research assistantships; and granting inter-sessional bursaries. The committee also offered to help upgrade the quality of the grant submissions through peer reviews by committee members.

Although overcommitted, the Committee on Research released a helpful paper for faculty making research grant applications. It encouraged the formation of small multidisciplinary teams, particularly for preparing Medical Research Council (MRC) applications.¹⁰⁹ Although encouraged to do so, no faculty member was obliged to join a research group or team.¹¹⁰

To improve the faculty's relationship with the MRC, Dr. Cochrane invited MRC president Dr. Malcolm Brown (1916–1977) to visit the Faculty of Medicine on 1 June 1970. Dr. Brown found the research plans for the school quite exciting and agreed to add Dr. MacCannell to the MRC Board to improve communication between the two organizations.¹¹¹

National grant success rates at the time were approximately 50 per cent, with the U of C grant-approval rate much lower. Although the

MRC set aside \$1.2 million for new medical schools, to that point none of it had been released. Nor had U of C applied for any funding to support visiting professors.¹¹²

On campus, selected faculty began giving courses through joint appointments with the Faculties of Arts and Science and Education. Twenty-four graduate-level basic science courses were offered by the faculty and included in the 1970–1 university calendar. The fact that the courses were not offered every year created a problem for prospective students.

The First LCME/RCPSC Accreditation Visit

The faculty requested an undergraduate program assessment by the international Liaison Committee on Medical Education (LCME), and a post-graduate one by the RCPSC, to review the U of C programs before the first undergraduate class began in September 1970. The visit occurred over three days in April 1970.¹¹³

The LCME surveyors were complimentary of the building program and the curriculum design and were impressed by the obvious drive of the faculty members. They recommended better communication with the teaching hospitals, clarification of the responsibilities to be assumed by the divisional/department heads, and regular meetings with the Foothills Hospital Board. CTU responsibilities, they said, needed to be clarified and the organizational structure of the faculty

better defined. The surveyors reaffirmed that the Foothills Hospital should be the major teaching hospital, with centres of excellence at the other hospitals.

The survey team called Dr. L. A. Fisher a “fortunate acquisition.” They supported his proposals to perform pre and post-course testing of all students to provide students with rapid feedback, and to evaluate their test results to improve curricular design on a continuing basis. They were also appreciative of the concerted and organized effort made to include FP in the medical education program.¹¹⁴

Specific LCME recommendations were as follows: to hire a well-qualified business officer; increase salaries and pay ceilings for clinical staff; recognize patient care, training, and research as a unified trinity; hold regular biweekly hospital/faculty meetings; and add the Foothills Hospital administrator and medical director to the FC. They also concluded that whatever minor gains that might result from opening a few years earlier than planned should be weighed against the potentially greater long-term gains that would arise from allowing the institution to mature at a reasonable rate.

In terms of finances, the surveyors noted that the 1967–8 faculty staff budget was \$116,500 (excluding the library grant), which increased to \$415,000 in 1968–9. For 1970–1 the budget was eventually settled at \$1.35 million. MRC grants totalled \$403,899 in 1969. The medical school was committed to paying the hospital \$140,000 a year

for space on the twelfth floor and in the House Staff Residence.¹¹⁵

The Royal College surveyors agreed that as of 1 July 1970, the Foothills Hospital could accept 26 interns and 26 residents, which could be increased to 72 in 1971–2, before being frozen at that level pending the report of the provincial government’s Pew Commission on the cost of medical education. In part, it was to determine the number of house staff Alberta should train.¹¹⁶

The First Class (of 1973)

The undergraduate program began on 1 September 1970. In his address to the class, Dr. Cochrane described how the students, as the first cohort, were “guinea pigs.”¹¹⁷ He encouraged them to therefore question, challenge, criticize, and provide feedback to the faculty, as they would be watched by many, both locally and abroad, to see what aspects of the new training program were successful. FP would be a priority for everyone. The art and the science of medicine would be merged. The medical divisions would be integrated with the social, biological, and behavioural sciences. Dr. Cochrane then examined three patients with the class, including a mother and her young daughter, who had cystic fibrosis. The presentation so impressed student Gordon Ford that he specialized in pulmonary medicine.¹¹⁸

Dr. McPhedran spoke to the class in the MDL during the orientation, where he described the ABCs of first aid. While talking, he opened a drawer containing pre-dissected anatomical specimens,

4

Class Names

Though Dean Cochrane had referred to the first class as “guinea pigs,” the tradition of naming classes after an animal or bird began with the third class, in the fall of 1972. The class grew up in the 1960s and had the characteristics of that generation: some members had longer hair, beards, and wore casual attire; they planned to be different and to foster change. And in class, accordingly, they were questioning, boisterous, variably attentive, occasionally disruptive, and at times irreverent—this in contradistinction to their teachers, who had grown up in the 1940s, a time when respect for authority and discipline were more notable hallmarks.¹

Although he had trimmed his long hair, that didn’t stop Rick Holmberg from getting into a prolonged post-presentation Q and A with guest lecturer Dr. R. Bruce Logue (1912–2007), a leading authority on cardiology, who was visiting from Emory University. The debate ended with Holmberg saying, “I guess we’ll have to agree to disagree.”²

The class monitor, Dr. Cyril Levene, asked the students to remain after Dr. Logue left. Levene said that he was disappointed with their behaviour. Singling out Holmberg,

Levene said, “You may have cut your hair, but all of you are still a bunch of turkeys.”³ That moved one student to post an image of a field of turkeys on the class bulletin board the next day, which was signed “The Class of ’75.”⁴

In September 1973, the class of 1976 named themselves the “beavers.” The next year they inducted the class of 1977 as the “toads.”⁵ The tradition of the second-year class selecting the class animal or bird for the incoming one has continued ever since. See Appendix 11.

5

Medical Graduates of the First Class in 1973

Thirty-two students (twenty-eight men and four women) made up the first medical class at the University of Calgary. Studies commenced on 1 September 1970 in temporary quarters on the twelfth floor of the west wing of Foothills Hospital. In his welcoming address, Dean Cochrane referred to the students as “guinea pigs”¹ and urged them to “question, challenge, and criticize” their educational experience, which possibly contributed to the at times testy relationship between students and faculty.² A priority dating back to the provincial government’s decision to establish the medical school,³ was preparing graduates for a career in family medicine.⁴

Early patient contact, an expectation that the student would be an “active learner rather than a perpetual recipient of sonic vibration,”⁵ and an integrated basic and clinical sciences curriculum, were distinguishing features of their training.⁶ It was decided early on that the undergraduate program would consist of three eleven-month academic years. The MD degree granted after these three years was conditional on completing a minimum of two years of postgraduate training in the student’s chosen specialty.⁷ An anatomist originally from Northern Ireland, Dr. Arthur David Dickson (1925–2018), was the first chair of the Curriculum Committee. He was the

“leader, cajoler, wheedler, and autocrat” credited with pulling together the initial educational offering.⁸ A striking organizational innovation was the de-emphasis of the role played by departments.⁹

Of the inaugural class, 27 students (24 men and 3 women, or 84.4 per cent of those who commenced) received their MD degrees on 1 June 1973.¹⁰ Drs. Bruce Chown (University of Manitoba) for his work on Rhesus (Rh) disease and Morley A. R. Young (Lamont, Alberta) in recognition of his contributions to the development of medical services in Alberta and beyond, received honorary degrees at convocation.¹¹ In his address, Dr. Young urged graduates to consider the needs of older Albertans. The official opening of the Health Sciences Centre (HSC), with Premier Peter Lougheed in attendance,¹² a series of three international symposia (on hypothalamic functioning, medical education, and health-care research),¹³ and an HSC open house also took place that week. Though completed ahead of schedule and under budget, the HSC received mixed reviews as an architectural structure. It was described in the 1973 university yearbook as a “squat, dark, and drab” building with interiors marked by “newness and emptiness.”¹⁴

Approximately one-quarter of the first graduating class eventually practised as family physicians (see table 1), though only three settled in Alberta. A surprisingly high number (nine, or 33 per cent of the graduates) spent substantial portions of their professional lives in the United States.

Table 1: Primary Field of Practice for First Graduating Class of the University of Calgary

- Internal medicine (including subspecialties) 8 (29.6%)
- Family medicine 7 (25.9%)
3 (11.1%) in Alberta
- Pediatrics (including subspecialties) 5 (18.5%)
- Orthopedic surgery 2 (7.4%)
- Pathology 2 (7.4%)
- Anesthesiology 1 (3.7%)
- Diagnostic radiology 1 (3.7%)
- Occupational medicine 1 (3.7%)

Figure 1: Timetable for the first curriculum

FIRST YEAR SCHEDULE

		WEEK NUMBER																											
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26		
H O U R S	4	INTRODUCTORY													ELECTIVE		ELECTIVE												
	8	INTRODUCTORY													CVR		CARDIOVASCULAR-RESPIRATORY												
	12	INTRODUCTORY													CVR		CARDIOVASCULAR-RESPIRATORY												
	16	INTRODUCTORY													CVR		CARDIOVASCULAR-RESPIRATORY												
	20	CONTINUITY															CONTINUITY												
	24	CONTINUITY															CONTINUITY												
	28	CONTINUITY															CONTINUITY												
	32	TUTORIAL															TUTORIAL												
36	TUTORIAL															TUTORIAL													
40	TUTORIAL															TUTORIAL													
44	TUTORIAL															TUTORIAL													

SECOND AND THIRD YEAR SCHEDULE

		WEEK NUMBER																											
		53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78		
H O U R S	4	ELECTIVE														ELECTIVE													
	8	ELECTIVE														ELECTIVE													
	12	ELECTIVE														ELECTIVE													
	16	ELECTIVE														ELECTIVE													
	20	ELECTIVE														ELECTIVE													
	24	ELECTIVE														ELECTIVE													
	28	ELECTIVE														ELECTIVE													
	32	ELECTIVE														ELECTIVE													
36	ELECTIVE														ELECTIVE														
40	ELECTIVE														ELECTIVE														
44	ELECTIVE														ELECTIVE														

FIRST YEAR SCHEDULE (Continued)

		WEEK NUMBER																																	
		27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52								
H O U R S	4	ELECT.		ELECTIVE																								VACATION							
	8	ELECT.		ELECTIVE																								VACATION							
	12	ELECT.		RETICULOENDOTHELIAL												RENALMETABOLIC										E & R		VACATION							
	16	ELECT.		RETICULOENDOTHELIAL												RENALMETABOLIC										E & R		VACATION							
	20	ELECT.		RETICULOENDOTHELIAL												RENALMETABOLIC										E & R		VACATION							
	24	ELECT.		RETICULOENDOTHELIAL												RENALMETABOLIC										E & R		VACATION							
	28	ELECT.		CONT.												CONTINUITY																VACATION			
	32	ELECT.		CONT.												CONTINUITY																VACATION			
36	ELECT.		TUT.												TUTORIAL																VACATION				
40	ELECT.		TUT.												TUTORIAL																VACATION				
44	ELECT.		TUT.												TUTORIAL																VACATION				

SECOND AND THIRD YEAR SCHEDULE (Continued)

		WEEK NUMBER																									
		79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97							
H O U R S	4	ELECTIVE		ELECTIVE																		VACATION					
	8	ELECTIVE		ELECTIVE																		VACATION					
	12	ELECTIVE		NEURO-MUSCULO-SKELETAL										ELECTIVE								VACATION					
	16	ELECTIVE		NEURO-MUSCULO-SKELETAL										ELECTIVE								VACATION					
	20	ELECTIVE		NEURO-MUSCULO-SKELETAL										ELECTIVE								VACATION					
	24	ELECTIVE		NEURO-MUSCULO-SKELETAL										ELECTIVE								VACATION					
	28	ELECTIVE		CONT.										CONTINUITY								VACATION					
	32	ELECTIVE		CONT.										CONTINUITY								VACATION					
36	ELECTIVE		TUTORIAL										TUTORIAL								VACATION						
40	ELECTIVE		TUTORIAL										TUTORIAL								VACATION						
44	ELECTIVE		TUTORIAL										TUTORIAL								VACATION						

which the students would later examine. Several members of the class fainted on the spot.¹¹⁹

After a one-week orientation, the formal teaching began¹²⁰ (see Figure 1) The first (introductory or equalization) course prepared the student for the systems courses. It lasted ten weeks (sixteen hours per week) and focused on cell biology, anatomy, histology, physiology, biochemistry, use of a microscope and stethoscope, health statistics, how to interview adult and pediatric patients, and how to use the library to search the medical literature.

The teaching program was based in the MDL, where students could self-learn by experimenting, reviewing recorded demonstrations, and observing audiovisual material. The lab gave the student the opportunity to integrate body structure-function-dysfunction and management. Gross anatomical and microscopic specimens (including radiological and pre-dissected cadavers) were available. Students were aided by a syllabus outlining the learning objectives for each system.¹²¹ This introductory course was the great equalizer and was designed to bring the class to a minimum common knowledge base before they examined their first patient.¹²²

The second (set of) courses lasted sixty-nine weeks (approximately fifteen hours per week) and covered each of the seven body systems starting with the CVS-R system. The course began with unit presentations on the system's structure, function, pathophysiology, and symptomatology. Then students were presented with both healthy and diseased cases. A retinue of basic scientists, surgeons, cardiologists, a pathologist, bacteriologists,

and family practitioners taught the students on topics ranging from hemodynamics, how to auscultate the heart, to the pathology of lung tumors. The unit on congenital heart disease was covered under embryology. The autonomic nervous system was included here and incorporated anxiety reactions and supportive psychotherapy. Required unit times were estimated with varying degrees of accuracy and adjusted where necessary.¹²³

The third (continuity) course lasted seventy-eight weeks (eight hours a week) and continued for almost two years. It was given in parallel with the system courses. During the CVS-R system course, the continuity course included instruction in how to do a more detailed CVS-R examination (e.g., listen for murmurs and other cardiac sounds, acquire auscultation and percussion skills for a chest examination) and read an ECG. During the teaching of the neuroscience system, psychiatry was taught in the continuity course. Dermatology was taught as another continuity course. Also covered were the nature of disease and its natural history; normal growth and development; demands of illness and the adaptive capacities and resources of the patient and family; the effect of community health problems on productivity and community welfare; and interventions and management plans necessary for prevention, management, or successful treatment. The student also studied development and aging from the unborn to the eighth decade. The course picked up other topics common to all systems, and ones not taught in any system. They included health-care organization and delivery, patient problems (including

interviewing and examining skills), attitudes necessary to approach a patient, lifelong learning skills, and observing faculty as role models. Each student was assigned a family, which they visited for a half-day every two weeks.¹²⁴

The fourth (tutorial) program provided independent study time. It lasted eighty-seven weeks (at sixteen hours a week), and encouraged the student to read, reflect, study audiovisuals, practise self-learning, and work in the MDL on his or her own.

The remaining four hours per week were assigned as elective time. The intention was to gain practical experience or problem solve. One-month electives, aimed at an in-depth study of an area of interest with an eye toward a possible career choice, required prior approval of the student adviser and the education committee. Students became adept at organizing their own electives.¹²⁵

To give the student physicians an introductory patient experience, in late October the students were divided into groups and assigned, during their free time, to one of several specialty areas (emergency room, intensive care unit, cardiac unit, operating room, deliveries, pediatrics/newborn) for one month. They were to accompany an intern or staff member and observe them in action. One student assigned to the ER was driving to the hospital when he was passed by an ambulance with its lights flashing. He decided to follow it for the experience it might give him. Unfortunately, a police officer spotted him, tailed him to the hospital, and gave him a speeding ticket. His “I’m learning”

rationale didn’t deter the officer. Classmates offered to contribute to the payment.¹²⁶

In succeeding years, the students developed their own system for reducing their attendance and reliance on didactic lectures. They formed small groups and rotated the one designated to attend, take and edit notes, and circulate copies back to each student in the group. In one case the students’ attendance after a late-night party resulted in an empty classroom the next morning.

The first class soon found ways to relieve the stress and tension of student life. This included touch football in the mall—that is, until Dr. Cochran termed the conduct unprofessional. Undiminished, students played pick-up floor hockey in the open research space in the south wing and ice hockey in a nearby arena once a week. For those less athletically inclined, there was a TGIF social mixer on Friday afternoons. Another tension reliever was the med show, which started in 1972 with an on-campus presentation in MacEwan Hall, and has continued ever since.

The affability and charismatic personality of Dr. J. S. “Smitty” Gardner (1906–1989), the former head of surgery at the Colonel Belcher Veterans’ Hospital, led to his appointment as the student faculty adviser.¹²⁷ He assigned a faculty adviser/mentor/counsellor to each student for the first year. Advisers were to meet and review the student’s performance, give guidance, and help them choose an elective.

With the teachers located so close to the students, there was continual interaction, leading to many close-knit student-teacher relationships, as

Dr. Cochrane had hoped. Once a month he would come from his office on the main campus and join them for a bag lunch.¹²⁸ Indeed, in time Dr. Cochrane himself came to be revered by the students, not only as an articulate teacher but also as a role model. He would give the class presentations on pediatrics and community health topics.

The clerkship did not receive serious attention until the first class approached it in May 1972. Initially it was to feature infectious diseases, pediatrics, and pharmacology, but that approach failed to gain approval. The second proposal was for a “do-it-yourself curriculum.”¹²⁹ It identified the knowledge and skills that were to be learned from four lists covering (1) clinical presentations; (2) important diagnoses; (3) non-pharmacologic therapeutic interventions; and (4) pharmacologic therapies. Faced with any clinical presentation, the clerk would be able to design a plan of investigation that led to the correct diagnosis and appropriate therapeutic interventions for that diagnosis. Faculty supervisors were directed to ensure that all examples on the list were covered. Clinical rotations varied from four to sixteen weeks. Advice on which rotations and electives to select were provided by the faculty adviser.¹³⁰

At the end of the clerkship year (April 1973) the whole class wrote the US National Board exams. The results were graded on a pass/fail basis and released within twenty-four hours. They identified some deficiencies, which correlated closely with the marks subsequently awarded by the Medical Council of Canada (MCC).

Two years later, the clerkship was modified to allow greater freedom of choice. One rotation of twelve weeks duration had to be in internal medicine, FP, or pediatrics. The rest, including an elective, had to meet provincial licensing requirements.

A later assessment of the teaching methods revealed that 20 per cent of the curriculum followed a PBL format, 35 per cent involved traditional small-group tutorials, and the remaining 45 per cent followed a lecture format. The percentages varied considerably from course to course.¹³¹ Despite widespread interest in the program, publications on it were limited, as staff concentrated on creating the curriculum and implementing it.¹³²

Evaluation of the Program

The evaluation program focused on three processes: student learning, how material was presented, and evaluation of the educational program itself—its organization, content, and impact. The student learning goal was to provide frequent testing with rapid feedback to the student. The evaluation questions were based on the predetermined objectives for the system and focused on the students’ acquisition of knowledge, how this knowledge was applied, their attitude toward patients, and the clinical skills they were to learn. In keeping with the school’s policy, each student had the opportunity, and indeed the responsibility, to evaluate their own performance through a bank of self-administered questions.¹³³

Testing procedures placed students in artificial but realistic settings. For example, instructors

were to watch the student interview a “trained” patient, or actor, with a medical problem before the student saw a real patient. This gave the student on-the-spot feedback. In addition to the learning evaluations or practice exams at the end of each unit, which were marked but not scored, there was a year-end certifying evaluation to assess the individual’s performance, compared with the objectives for each system. No more than one-sixteenth of the course time was to be for evaluation. The three non-system courses—introductory, elective, and continuity courses—were evaluated too. Evaluation of the student’s performance was on a pass/fail basis with the minimum pass level determined by faculty.¹³⁴

A separate Committee on Evaluation was appointed in April of 1971 and it recommended that the number of already-in-process evaluations during and at the end of each unit be diminished, and that learning evaluations be held at the end of each body system, with these evaluations to include any related material in the continuity course. The certifying or comprehensive evaluations at the end of each year remained in place and continued to receive close scrutiny.¹³⁵

Promotion to the next year was not automatic. Students who failed were reviewed by the Promotions Committee, which considered a range of options: tutoring, receiving remedial instruction, repeating the year, or being dropped. Both the student and their adviser attended the Promotions Committee review. In the case of the first-year class, everyone passed.¹³⁶

Remedial instruction could create a problem. If the evaluation was unsatisfactory, a remedial program followed by a re-evaluation was required within six weeks. Where necessary, students were assigned a mentor. If the re-evaluation was failed, the next block elective was used for further remedial study and re-examination. If there was a failure on this examination of a system, or unit within it, the student was offered tutorial instruction and another program of remedial studies.

The Division of Evaluation, Performance, and Assessment (DEPA) under Dr. Fisher collected information on the following: attainment of program objectives; congruence of the evaluation and educational processes; adequacy of sampling techniques; objectives that could not be reached, along with the reasons; and the technical quality of the evaluation procedures. Student perceptions were ascertained through questionnaires, interviews conducted by the Committee on Evaluation, and class discussions conducted by the chairman of the Committee on Medical Education.¹³⁷ Teachers were offered a five-weekend course on how to present their material.

More Progress during the First Year, 1970–1

By September 1970 the number of faculty had reached 50 GFTs plus 22 part-timers. MSc candidates could choose from 25 courses on offer, but the PhD program had to await the opening of more laboratories and the medical library. In December,

the faculty agreed to accept 48 students into the second class starting September 1971.¹³⁸

Always willing to share his ideas, plans, and experiences that fall, Dr. Cochrane organized and chaired a meeting of Western Canadian deans to exchange information and to discuss many issues of common concern.¹³⁹

For several months in 1971, the faculty grappled with the challenge of identifying its priorities. In time, they were recognized (in order) as undergraduate education; clinical postgraduate education; the development of FP; health-care research; medical (clinical) research; MSc and PhD education; educating undergraduate and graduate students in other faculties; providing clinical services to the local population; and teaching beyond the university and city. The next step—setting goals for each—was not undertaken.¹⁴⁰

In the summer of 1971 many of the campus, twelfth-floor, and South Tower FP offices began to move into the newly opened east wing (ACC) of the Health Sciences Centre. The first and second class continued to use the space on the twelfth floor of the Foothills Hospital. FP faculty member Dr. George McQuitty took the opportunity to move his practice to the nearby town of Cochrane. It created an opportunity to introduce clinical clerks to a comprehensive community and public health-orientated practice.

The Stoney Health Centre at Morley

In early 1970, the faculty had received an offer from the federal government to provide health services

to the two thousand members of the Stoney Nation, on the Morley Indian Reserve, about thirty-five miles west of the city.¹⁴¹ It was to be led by a family physician, with two nurse practitioners and support staff. FP residents were to be rotated.

Before it opened in 20 July 1972, Dr. Cochrane was made chief *Japathunga* (or “medicine chief”), at a gathering attended by four hundred members of various First Nations from as far away as Nordegg and High Level. Chief John Snow (1933–2006) acknowledged that “this is the highest honour our tribe can bestow.”¹⁴² Dr. Cochrane promised the program would train band staff to work in the centre and encourage them to consider health-care careers.

Six thousand patient visits were made in the first full year. The major health issues were arthritis, maternal antenatal care, substance abuse, and tuberculosis. Although the clinic was successful, over time one-half of the band members began choosing community family physicians for their medical care.¹⁴³ In the eyes of a few band members, having care provided by residents in FP left them feeling they were receiving second-class medicine.

Operating Funding Difficulties

Arguing there was no money in the kitty for 1972, the new Progressive Conservative government headed by the Honourable Peter Lougheed (1928–2012) slashed expenditures for all Alberta universities. President Carrothers described how dire the 1972–3 budget was going to be for Calgary.¹⁴⁴ The BOG cut faculty budgets by 10.8 per cent but

refused to make further reductions, which would have required terminating existing contracts. The Faculty of Medicine, still in the growth stage, was so impacted that on 23 March 1972, Dr. Cochrane wrote the President Carrothers indicating he could do one of three things: (1) cancel the class of 1975; (2) change the academic program back to the traditional, didactic, discipline-based one; or (3) have the faculty placed under a separate administrative structure or college with its own budget (a risky choice) and an affiliation agreement with the U of C to avoid direct competition with other faculties that were not in a growth phase.¹⁴⁵

In desperation, Dr. Cochrane suggested the university BOG make a special one-time request for money for the Faculty of Medicine. That request was declined by the University's Commission, which suggested that \$300,000 be transferred from the faculty's capital budget to its operating budget, a decision not finalized until October.¹⁴⁶ Still upset, in July Dr. Cochrane and Dr. Carrothers met with cabinet members over joint appointment funding through the Foothills Hospital.¹⁴⁷ Health Minister Neil S. Crawford (1931–1992) was surprised at the funding disparity between the Calgary and Edmonton hospitals, and he promised to address it.

More Growth, Another Reorganization

With the size of the faculty continuing to expand, the dean approved a major organizational

review, undertaken by Professors L. A. Fisher, S. Rowlands, and J. W. Dawson, and released in June 1972.¹⁴⁸ The underlying theme of the review was accountability. Authority for policy formulation was vested in the FC, while the dean was charged with implementation. In the plan, Associate Deans Dawson and Rowlands recommended their own replacement by one of the recommended three new associate deans.

After several months of discussion over the problem of clearly separating policy formulation and policy execution, an issue never entirely clarified or resolved, Dr. Cochrane accepted the committee's recommendations and divided the faculty into three functional components and realigned the committees accordingly. He then appointed Drs. David Dickson (education), Lionel McLeod (professional services), and Keith MacCannell (research) as associate deans in November 1972 and notified the affiliated hospitals of this change.¹⁴⁹ A follow-up review was to be undertaken in five years.

Research Units Develop for Each Body System

By 1972 there were eight research units, each focused on a body system. Within each unit were research groups or teams.¹⁵⁰ The Committee on Research had set the minimum number of group/team members at three, with the requirement that both basic and clinical sciences be represented and one of the members be a well-established

investigator with a national profile.¹⁵¹ Any new groups were to be sanctioned by the committee.

An MRC allocation of \$40,000 to the dean provided some funding for faculty-sponsored research. The committee was given the authority to prioritize it. The committee also agreed to adjudicate the medical trust fund, created from the share of excess clinical earnings from faculty members in the ACC practice plan.¹⁵²

Forty-one research grant applications were made in 1972, mostly to the MRC. Research projects were inventoried. Funds were found for the first graduate assistants. Enthusiasm for these endeavours was such that a working conference was convened for researchers from the five Western medical schools. From it, a list of potential visiting speakers was shared among the schools, and from this list a roster of potential speakers was identified for Calgary. Although the faculty had been successful in a couple of MRC grant competitions, including the first three-year development grant, it remained near the bottom in the approval of grants.¹⁵³

Numerous problems were highlighted at a subsequent research retreat. It was noted that only 20 per cent of faculty time was spent doing research; for a mature faculty, it was felt that this rate should be 40 per cent.¹⁵⁴ More proposals were needed. Grant reviews were needed too. So was recruitment of new faculty to meet research priorities. Chairs were needed for research groups. To help, a handbook of research policies was released.¹⁵⁵ While the number of faculty was increasing, the number of researchers and funded research

projects was not rising as quickly. Not until the Alberta Heritage Savings Trust Fund (AHSTF; not to be confused with the AHFMR, or Alberta Heritage Foundation for Medical Research) was approved in 1976, and the mechanisms for applying to it clarified, would more capital equipment funding be secured in the pre-AHFMR era.¹⁵⁶

The faculty made its first direct request for community donations in 1972. These funds were to go toward finishing the research space on the first floor. Drug companies and instrument manufacturers were targeted. Concurrently, members began soliciting personal research funding from the community. The university reiterated that it had created a development office and required that all faculties make their fundraising requests through it.¹⁵⁷

In 1966 the university had secured a 34-hectare site for animal research 20 kilometres northwest of the U of C main campus, on Spy Hill. By 1967 four departments had research animals housed there, but space limited their numbers to a menagerie of mice and rabbits. By 1968–9, buildings for sheep and dog research were available for cardiovascular studies. On campus, a small animal facility was created on the sixth floor of the science building and five trailers leased. Dr. Kurt Weissenborn, MSc, DVM, joined the faculty in 1969 to oversee animal care and to design the vivarium, as required by the federal Department of Agriculture.¹⁵⁸ When the medical school opened in the fall of 1972, the 45,000-square-foot basement vivarium was fully functional and could house animals as large as sheep.¹⁵⁹

On a positive note, after three years of deliberations, a health science PhD program was approved in principle. It was multidisciplinary in scope and centred on the four strongest body system research units. The program did not duplicate the one already available at the U of A.¹⁶⁰

The Alberta Children's Hospital, 1966–73

Dr. Cochrane's background as a pediatrician, researcher, chief of pediatrics at Dalhousie, and initiator of the Izaak Walton Killam Children's Hospital in Halifax made him an authority on the development of and siting of pediatric care facilities.¹⁶¹ On his arrival in Calgary he critiqued the proposal from the Alberta Children's Hospital (ACH) for a 345-bed hospital on their 17th Avenue site, about five miles from the university and Foothills Hospital.¹⁶² He recommended that acute pediatric care be centred at the Foothills Hospital while multiply handicapped care should be located on the ACH's 17th Avenue site.¹⁶³

Further action was withheld pending the arrival of Dr. Gerald Holman as the director of pediatrics in July 1969. Immediately following his arrival, Dr. Holman was tasked with preparing a report on the future development of pediatric services in Calgary. His committee recommended an integrated child health-care centre with outpatient facilities, be built between the hospital and medical school.¹⁶⁴ No action was taken. A more positive response was received for another Holman-directed

study, in 1971, which recommended the creation of a regional Alberta perinatal program for Intensive Care Newborns (ICN), to be based at the Foothills Hospital. Approved, the ICN opened in 1973.¹⁶⁵

After the Government of Alberta changed hands in late 1971, the new minister of health, Neil Crawford, asked the Multiply Handicapped Advisory Committee under Dr. Ian Burgess to reassess the topic. The Burgess report was submitted in July 1972. It recommended, as Dr. Cochrane had, that the multiply handicapped facility be built on the 17th Avenue site under its own board. The Committee also recommended that the 128-bed acute care facility remain on the 17th Avenue site, and be upgraded.¹⁶⁶

The FC formally expressed its support for the dean's recommendation, but requested that acute pediatric care be concentrated on the Foothills Hospital site, albeit it under its own board.¹⁶⁷ The government then proceeded to buy the ACH site in December of that year but did not commit to a specific location for an acute pediatric care facility.¹⁶⁸

6

Alberta Children's Hospital

The changing nature of this institution was reflected by the evolution of its name from the Junior Red Cross Children's Hospital (1922-49), Red Cross Crippled Children's Hospital (1949-51), Alberta Red Cross Crippled Children's Hospital (1951-8), Alberta Crippled Children's Hospital (1958-9), Alberta Children's Hospital (1959-81), Alberta Children's Provincial General Hospital (1972-81), Alberta Children's Hospital Child Health Centre (1981-2006), and finally, the Alberta Children's Hospital (2006 onwards) as it moved from the Brickburn House at 522-18th Avenue SW (1922-9), the Ruby Apartments at 1009 Royal Avenue SW (1929-52), to 1820 Richmond Road SW (1952-2006), and, finally, to the West Campus at 28 Oki Drive NW (2006 on).¹ In its early years, the most common reasons for admission were for a tonsillectomy, polio, or orthopedic surgery. Children would often stay for one to two months, if not longer. Acute pediatric care was provided by the city's general hospitals. In the early 1980s, the ACH became a comprehensive child health-care centre. Fully free-standing children's hospitals (defined as being geographically separate and largely clinically and administratively independent) have become rare in Canada.² Though the ACH is geographically separate from the other Calgary hospitals, it has been merged

administratively with them since 1994. Salient episodes in the history of the ACH are described in a number of the chapters in this book. Here, we will focus on its role as a teaching hospital.

Two of the first six deans of the U of C medical school were pediatricians who took particular interest in pediatric teaching, research, and services. Through the creation of a critical mass of patients, the ACH played important roles in attracting specialists and training physicians. Post-graduate clinical education at the ACH began in 1961—prior to the founding of the U of C medical school—when orthopedic residents from the Universities of Alberta and Saskatchewan came for training under Dr. Glen Edwards. The pediatric residency program at the U of C was launched in 1970, with training taking place primarily at the Foothills Hospital, though an in-patient rotation was also offered at the Calgary General Hospital.³ Most pediatric training remained at the Foothills for the next twelve years. The only involvement of the ACH at this time was an opportunity for residents to spend time in its diagnostic assessment and treatment (DAT) centre. Acute pediatric services (other than the neonatal intensive care), clinical training, and the department moved from the Foothills to the ACH in the early 1980s. This

transition was not easy for the Faculty of Medicine and the boards of both the Foothills and the ACH. The dispute about the location of pediatric services contributed to a provisional approval for the training program in 1975. A former head of the department, Robert H. A. Haslam, who worked in both the Foothills and the ACH, wrote that he believed children fared better in the ACH.⁴ In 1980, after an agreement had been reached about the location of pediatric services, full approval was obtained from the RCPSC. Specialty residents in other disciplines have spent time at the ACH and over the years a number of pediatric subspecialty training programs were added.

The Alberta Children's Hospital Society (ACHS) was incorporated as a non-profit organization responsible for the hospital in 1958, when the Red Cross discontinued its sponsorship. In 1972 the provincial government purchased the hospital from the ACHS for \$2 million. The revenue from the sale was invested to create an endowment fund. The ACHS became the Alberta

Children's Hospital Foundation, which has been very successful in raising funds for research, education, and clinical services through activities such as participation in the Children's Miracle Network.⁵ The Kinsmen Clubs of Calgary were important early donors. In 1975, 1976, and 1978, the three Calgary clubs hosted telethons that raised over \$1 million, which was used to fund the Kinsmen Research Centre at the ACH site. The Kinsmen and many others have continued to provide financial support to the ACH over the years. In 2004, several children's-health-related research groups merged to establish the Institute of Maternal and Child Health within the Faculty of Medicine. Five years later it was renamed the Alberta Children's Hospital Research Institute (ACHRI). The ACHRI is a partnership of the University of Calgary, Alberta Health Services, and the Alberta Children's Hospital Foundation that supports excellence in child health research, innovation, and knowledge translation.⁶

Convocation Comes, Cochrane Goes

The 1973 academic year began with the submission of accreditation progress reports to the LCME and RCPSC.¹⁶⁹ At their visit in April, representatives from the LCME noted the alarming shortage of GFTs in some divisions and the non-competitiveness of the salaries offered. Although no site visit was made by the RCPSC, full approval was granted in June for five programs (medicine, surgery, radiology, pathology, and anesthesia), while the psychiatric, pediatric, and obstetrical and gynecological programs remained “provisionally approved.” The request to extend the psychiatric program to the HCH and ACC, and the pediatric program to the CGH and ACH, was granted.¹⁷⁰

The Health Sciences Centre (HSC), home of the Faculty of Medicine, was now fully open. The first class convocated there on 1 June 1973. The class had been carefully selected. Dr. William Hughson would receive the first Rhodes Scholarship to Oxford in October 1974.

On an unexpected note, Dr. Cochrane submitted his resignation as dean, three months prior to the opening ceremonies for the HSC. He left in June of 1973, after accepting Premier Lougheed’s offer of an opportunity to see “medicine on the other side of a gurney”—that is, as the deputy minister of the Alberta government’s health division, under Minister Neil Crawford and senior Deputy Minister Bruce Rawson. As Dr. Cochrane would later say, “It was an insightful and busy time to learn how two mandarins made decisions.”¹⁷¹

Just as unexpectedly, President Carrothers gave his own retirement notice on 24 June 1973. It was to be effective a year later, on 30 June 1974.

The Official Opening, 28 May–1 June 1973

After two years of planning by Dr. Cochrane and his committee, the opening ceremonies for the faculty were held in the Faculty of Medicine Atrium beginning 28 May 1973.¹⁷² They were followed by a two-day program that brought together dignitaries, delegates, and presenters who attended one or more of the three concurrent plenary sessions. Twenty-seven students convocated in the first class of U of C MDs.

Premier Lougheed helicoptered in to cut the ribbon and join the opening ceremonies. The theme that afternoon was “The Role of the Medical School in Modern Society.” Dr. J. Douglas Wallace (1915–1975), the executive secretary of the CMA, spoke on the role of the medical profession and its responsibility to society, while President Carrothers spoke on the university as an incubator of the health sciences.¹⁷³

A scientific program was held on the 29 and 30 of May 1973. The plenary sessions focused on the hypothalamus and its influence on hormonal control as part of a “search for new knowledge.” The thirty-three scientific papers were edited by Drs. Keith Cooper (1922–2011) and Karl Lederis (1920–2007) and published as *Recent Studies of Hypothalamic Function* in 1975.¹⁷⁴

The second plenary program focused on medical education and innovation, particularly on the “consequences of innovation” resulting from the U of C and McMaster “experimental” three-year medical programs. Faculty presentations covered the Stoney Health Centre at Morley, new teaching equipment, audiovisual and anatomical models in the MDLs, current faculty research on the causes and effects of disease, the role of the ACC, the organization and evaluation of the U of C program, storage and retrieval of medical data, maternal labour under hypnosis, the Canadian National Institute for the Blind (CNIB) and blindness, the epidemiology of tuberculosis, slides using electron microscopy, embryo implants, home dialysis, and planning and building the HSC, to name the major ones. Speakers at the third plenary session addressed topics of contemporary concern in health-care research.

Presenters came from across the Western world—from England, Switzerland, Sweden, Germany, Denmark, and nine US states (including one presenter who gave a presentation on the Case Western Reserve program). Canadian presenters,

including student presenters, came from every Canadian medical school.

Convocation for the first class was held June 1, during which the university awarded two honorary degrees. The first recipient, Dr. Morley Young (1894–1981) of Lamont, Alberta, was a medical pioneer, a past president of the CMA whose clinic initiated the first municipally based, prepaid public medical insurance program in Canada in 1933. The second was Dr. Bruce Chown (1893–1992) of Winnipeg, who discovered the Rh (rhesus monkey) blood group system, which caused fetal stillbirths.

Over a thousand Calgarians attended the open house on June 1 and toured the medical school to see the ACC, medical movies in the lecture theatres, course exhibits in the MDL, and exhibits on how to use the library and access medical books and artifacts.

From a research, educational, and community-relations perspective, the opening ceremonies were a great success.¹⁷⁵ Dr. Cochrane acknowledged that “it was a very good day for all of us.”¹⁷⁶



Lionel Everett McLeod
MD, FRCPC, FACP, FRCP(Edin) (Hon), LL.D (Hon)

The Dean McLeod Years, 1973–1981

Robert Lampard

You can't just do your job as an individual physician. If you want to change what happens in medical school or at the bedside, you have to get involved in the way decisions are made.

—Dean L. E. McLeod¹

Following his appointment as associate dean (professional affairs) in December 1972, Dr. Lionel McLeod became the likely successor to Dr. Cochrane. His new position made him responsible for all the faculty's clinical affairs and for managing the faculty-hospital affiliation agreements, including the one with the Foothills Hospital, while continuing as the professor and head of medicine until a successor to Dr. Cochrane could be found.²

Formally appointed dean in June 1973, Dr. McLeod brought an open-door policy and his approachable, imperturbable, and easygoing style to the position. As one former student remarked, Dr. McLeod was the Jean Béliveau (the hockey icon whose personal reputation for “class” and graciousness outshone his accomplishments on the ice) of Canadian medicine; as another colleague noted, “he affected every life he touched because he truly cared.”³

Dr. McLeod loved hiking in the mountains, skiing, playing tennis, and spending time with his family and friends, but “his greatest achievement and source of satisfaction was helping young people get started toward a career in science and in the practice of medicine.”⁴ He would learn all the students' names, attend their get-togethers, and meet them at the TGIFs in the atrium. At one med show the class gave him the “smooth tongue award” and irreverently sang “God Save the Dean,” much to his amusement.⁵ As

his predecessor Dr. Cochrane would later remark, “the affection was mutual.”⁶

Dr. McLeod’s style was also marked by forethought. Commenting on this, McLeod said: “The less you say the more people think you know. I listen to the arguments, then make a decision in the best interest of the faculty, for I love conflict if it means vigorous debate. Nothing is more stifling than no conflict.”⁷ Another invaluable characteristic of a dean, he believed, was a strong sense of humour, especially in the face of stressful situations.⁸ Case in point: Dr. McLeod once opened an important meeting by telling the participants, “Let’s agree at the beginning that we will kick the shit out of each other over the contentious issues, but then leave as friends.”⁹

Dr. McLeod didn’t just bring personality and professional experience to the position of dean. Besides being a leading Canadian endocrinologist and nephrologist, he also had a long-standing interest in faculty management. This surfaced at the U of A when he was appointed the chairman of the Faculty of Medicine Research Committee in 1964. He was also appointed the first permanent secretary of the U of A Medical Curriculum Committee in 1966. Both experiences left him better prepared to apply for more senior faculty positions, “despite paperwork not being his favorite thing. People work was.”¹⁰

The month before choosing the University of Calgary in April 1968, Dr. McLeod met with Dr. Cochrane and went over Dr. Cochrane’s recently released “Philosophy and Program” article. In his initial assessment of the Calgary scene he noted

that the city “lacks good general internists and a number of specialists. If young people are to come [and join the faculty], they must be prepared to support the school’s objectives. Strong joint appointments would need to be made.” Dr. McLeod also felt that the hospital structure in Calgary represented an interesting problem:

An effective relationship with the Foothills Hospital Board will be necessary particularly as Family Practice was a critical part of the experiment. To develop and mold the medical staff into an effective educational unit will require a continuous evaluation and yet still necessitate flexibility. . . . I’m confident I can contribute and find the possibility most exciting and challenging. Although the role of the chairman [of the Division of Medicine] is heavy.¹¹

In his reference letter for Dr. McLeod, professor and head of medicine at U of A Dr. Donald R. Wilson (1913–1991)¹² noted how knowledgeable and enthusiastic Dr. McLeod was: he “did good work, was great to work with and excelled at stimulating young people, but sometimes he took on more than he could reasonably achieve.”¹³

A true Albertan, Dr. McLeod selected the U of C position at the top of a ski slope in the Rockies. Later he would add that he decided to join the U of C because he knew who he was joining: “In Adshead and Cochrane you have two who are

thinking of tomorrow, instead of thinking of the established practices of yesterday. In that setting you probably can do more than in any other place in North America.”¹⁴

Dr. McLeod arrived on 1 July 1968 to serve as the first jointly appointed professor and head under the new affiliation agreement signed with the Foothills Hospital. He started two weeks after the first class of fourteen interns arrived at the Foothills Hospital. As there were no medical residents and Dr. McLeod was the only GFT in the department, the organizing and teaching load fell almost entirely on the voluntary contributions of the medical staff.

McLeod immediately applied himself to interpreting the Cochrane philosophy, helping design the undergraduate curriculum, and organizing the intern medical rotation. He would come to firmly believe in Dr. Cochrane’s philosophy and was one of its strongest proponents. Clinically, he expanded the renal dialysis program by adding a home dialysis component (1970) while preparing for the first renal transplants (1971).¹⁵ During the 1972–3 year, he chaired the Foothills Hospital MAC, becoming the most direct link between the hospital’s administrator, Reg Adshead, and Dean Cochrane, after the latter retired as the Foothills Hospital’s director of pediatrics on 30 June 1969.

As hospital department head, Dr. McLeod was responsible for recommending all appointments to medicine, as well as supporting all the family practitioner appointments to the medical staff. One of his first steps was to appoint a director (internist) and an assistant director (family practitioner) for

each of the four medical units to foster integration in the management of them.

Administratively, he strongly supported the two emergency department enlargements, opened in 1969 and 1974, and expansion of the role of the Department of Family Practice in the hospital to include managing and staffing of the emergency department. The ER expansions created an ambulatory outpatient medical and surgical program and included full-sized operating rooms one of the first hospitals in Canada to do so. He viewed those decisions as far-sighted.¹⁶

On 20 June 1973, Dr. McLeod was confirmed as the second dean of the U of C Faculty of Medicine.¹⁷ His appointment accompanied a changing of the guard at the Foothills Hospital with the retirement of Reg Adshead as the CEO in September. Mr. Adshead was succeeded by Ralph Coombs, whose career started at the U of A Hospital in Edmonton. Both came to Calgary on the same day, 1 July 1968. Coombs’s and McLeod’s amicable relationship would continue throughout the latter’s tenure as dean.

Accreditation Progress

A year after his arrival in 1969, Dr. McLeod applied for a residency training program in internal medicine. It was provisionally approved following the RCPSC site visit in 1970 and granted full four-year approval in 1973. He also extended the medical CTUs to include one at the CGH under Dr. Howard McEwen, after McEwen’s appointment as the CGH head of medicine.¹⁸

As the new dean, Dr. McLeod received the LCME and RCPSC accreditation reports in September 1973.¹⁹ The LCME survey team noted that the faculty had been completely reorganized in 1972 into three components (service, education, research) but continued to utilize a divisional structure. The faculty consisted of 78 full-time instructors and 103 part-timers, and was supported by a \$3 million budget with a further \$1 million earned in research grants. There were 38 interns and 75 residents at the Foothills Hospital.

The LCME surveyors again recommended that the dean and the U of C president be placed on the boards of the three affiliated hospitals. Further, they indicated that the dean should be involved in the selection of all the hospitals' senior medical positions and CEOs. Conversely, the surveyors felt, the CEOs should be involved in any dean selection, and the U of C/Foothills Hospital Liaison Committee should be reactivated.²⁰

The RCPSC did not make a site visit in 1973. Rather, the college reviewed the progress report submitted in January and noted that the faculty was still far short of its requirements. The ACC, with its 13,000 FP and 8,000 consultant visits, the surveyors felt was operating much below capacity and needed a major overhaul. They also recommended that the Foothills Hospital emergency physicians be jointly appointed and that residents be called in to see ER cases related to their specialties. The residency training programs in medicine, surgery, radiology, and pathology were fully approved for four years of training. Psychiatry,

obstetrics, gynecology, and pediatrics remained provisionally approved for training.²¹

Appointment to the Foothills Hospital Board

The long-sought appointment of the dean to the Foothills Hospital Board was finally implemented when Dr. McLeod, and Foothills CEO Ralph Coombs, attended their first board meeting on 16 April 1974.

Dr. McLeod's appointment to the board coincided with his enticement of Dr. Moramu (Mo) Watanabe from the U of A, who would come to Calgary as the professor and head of medicine.²² Dr. Watanabe's first challenge was to reassess the two cardiovascular submissions to the Alberta Heritage Savings Trust Fund (AHTSF) from the Foothills and Holy Cross Hospitals, after both had been turned down by the government. Dr. Watanabe did so by supporting the HCH as the major service program, while expanding the cardiology teaching and research programs at the Foothills Hospital. The unanimity surprised government officials and the submission was approved.²³

Educationally, the Association of Canadian Medical College (ACMC) released its clerkship requirements, which identified the core material to be learned, the skills that needed to be taught, and the evaluations that were necessary. There was also a requirement for portability. Based on these requirements, Calgary's "do-it-yourself" clerkship was restructured.²⁴ Clerkship blocks

were modified to include one twelve-week block in medicine, pediatrics, or FP to help clerks make career choices. An “in-house” multiple choice final examination raised questions when there was a 60 per cent failure rate. Dr. Watanabe, who had gained relevant experience at the R. S. McLaughlin Examination and Research Centre in Edmonton, found technical errors in the exam. Moreover, the questions did not discriminate between the more accomplished and below-average students.²⁵ Relief came when 90 per cent of the class passed the 1974 American National Board examination.

For faculty help, Dr. McLeod responded to the 1972–3 funding crisis by creating a new category of staff called major part-time; they would teach two days a week and do clinical work during the rest of their time. More reliance had already been placed on the part-timers for voluntary teaching by the Foothills Hospital medical staff because of the funding shortfall. At the time, Dr. McLeod felt the faculty was “60 percent funded based on the numbers we had anticipated at the outset.”²⁶

Organizational Progress

As five or more years had passed since some of the original clinical department/division heads had been jointly appointed in 1968–70, Dr. McLeod initiated a program of performance reviews. Although none of the incumbents were terminated, these performance reviews became an ongoing practice geared at improving faculty performance.

An internal organizational change came in 1974 with the creation of an associate dean

position for administration and student affairs. It was initially filled by Dr. John Baumber (1939–2009).²⁷ Dr. McLeod had kept the associate dean professional affairs portfolio after becoming dean. He also appointed the first assistant dean, Dr. David Steinman, as the director of the Ambulatory Care Center. The Alberta Hospital Service Commission (AHSC) agreed to fund the medical director’s position in the ACC, even though Dr. Steinman was already questioning whether the ACC was viable in its current form.²⁸

In May 1974 the faculty received a request from the Alberta Dental Association and the Calgary and District Dental Society for a graduate program in dentistry. It was approved in principle by the faculty and the BOG, subject to the government’s “firm assurance that continuing non-formula funding will be provided.”²⁹ No funding guarantee was forthcoming, as had happened with the 1969 application for an undergraduate program in dentistry for forty students per year. Despite wanting more allied health programs, the faculty seriously considered but declined requests for schools of physiotherapy, chiropractic medicine, optometry, podiatry, and medical assistants. U of C did establish a BSc RN program for fifty students on the main campus in 1969. It started in 1970.³⁰

Increased financial assistance for GFTs continued to come through the hospital budgets. One funded Dr. Ron Granger (1942–2001) as the jointly appointed director of the FP program at the HCH in 1974.

At the provincial level, the faculty's long-standing desire for a two-year FP residency requirement was implemented by the College of Physicians and Surgeons of Alberta (CPSA) in 1976.³¹ It was a Canadian first, but it required one hundred and fifty more residency positions in the province. As part of the transition, the CPSA added the two Alberta deans to their board.

Research Progress—and a PhD Program

A 1973 review by the Committee on Research found that several research units were continuing to grow, particularly the growth and development, neurosciences, renal/immunology, and red blood cell units. CV-R and gastroenterology research unit staffs were closely linked to their teaching groups. All new researchers were encouraged to teach and have their appointment letter from the president so annotated. MRC grants were growing as well, albeit slowly, reaching \$300,000 of the \$1.9 million grants for Alberta researchers. The Medical Trust Fund was now generating up to \$100,000 in excess earnings through patents seen in the ACC, providing another source of research grant funding.³²

In 1974 Dr. Keith MacCannell completed his term as associate dean (research), noting the “modest but solid start that had been made.”³³ By then there were nine research units based primarily on body systems.³⁴ Within each unit were research groups or teams that were usually formed to apply for MRC grants.

Dr. MacCannell had voiced his opposition to autonomous research groups; the establishment of institutes; or the creation of single-focus units like the McEachern cancer laboratory in Edmonton. Independent groups he thought might develop “sometime in the future, when the concept of interdisciplinary research was more secure than it is at the moment.”³⁵ Research groups or teams, he said, didn't need to be fixed in composition but they did need a defined aim or direction. Research carried out purely for curiosity should not to be entirely ruled out either.

MacCannell's crowning achievement was finally securing government approval for a multidisciplinary PhD program after numerous attempts over several years.³⁶ Although he stepped down as associate dean (research), he continued to represent the faculty on the MRC Board. He asked MRC chair Dr. Malcolm Brown to visit Calgary again, which he did, bringing the whole MRC Board with him in 1975.³⁷

One Step Back, More Steps Forward

Controversy was brewing within the renal program following the 1974 appointment of transplant surgeon Dr. George Abouna (1933–2016). It would lead to resignations, the temporary suspension of the renal transplant program, the revocation of Dr. Abouna's privileges in October 1975, four years of investigation, bylaw appeals, litigation, a severance settlement, and eventually a “blacklisting” of the U of C by CAUT, the Canadian Association of University Teachers. It

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Dr. George Abouna, MBBS, FRCS, FACS

Dr. George Abouna was a Christian born in northern Iraq in 1933. He studied engineering in Britain before returning there for an MBBS and a FRCS in transplant surgery. While in the United Kingdom he performed the first pediatric renal transplant, the first living donor renal transplant, the first liver perfusion of a patient in hepatic coma, and the first liver transplant—all by 1968.¹ Impressed, Dr. Thomas Starzyl offered him a fellowship in Denver. After two years in Georgia, and two years back in England, Dr. Abouna followed his eighteen-year-old daughter to Canada, where he accepted Dr. N. T. McPhedran's standing offer to become the second transplant surgeon in Calgary in June 1974.²

Determined, forthright, focused, and with limitless drive, Dr. Abouna could work all night and operate all day. But by December 1974, personality differences among the transplant and dialysis teams were becoming apparent. Dr. McPhedran recommended that Dr. Abouna's promotion from the associate to the active medical staff of the Foothills Hospital be postponed for a year. With no improvement in the interaction among the team members, and with resignations pending, in June 1975 McPhedran recommended the life-improving renal transplantation program

be suspended, which it was.³ Notwithstanding that decision, a month later, on 30 July 1975, Dr. Abouna performed the first liver transplant in Western Canada using a sixteen-year-old donor. The patient's and donor's hepatic arteries didn't match; this created an anatomical challenge leading to massive blood loss, all-night blood donations by the staff, and a cardiac arrest on the OR table. Remarkably, the patient survived.⁴

The conflict at the U of C came to a head when two of the three nephrologists and the original transplant surgeon were offered positions in the United States. Both would accept the offers and leave for successful American careers.

To preserve the life-saving dialysis program, all of Dr. Abouna's transplantation privileges and his medical staff appointment were revoked by the Foothills Hospital Board in October 1975.⁵ Dr. Abouna appealed this decision, but was ultimately unsuccessful. He also accused the program's two nephrologists of unethical behaviour.

An international task force studied the two programs and found that Dr. Abouna's kidney transplantation survival results were better because he always transplanted the first kidney.

The Faculty of Medicine's Executive Faculty Council concluded that it had no role in the

Foothills Hospital appointment process. An assessment of Dr. Abouna's research work reported it was sub-average, a conclusion he contested.⁶ When his two-year university contract was not renewed in June 1976, his MRC and Kidney Foundation research was halted.⁷

With appeals exhausted, Dr. Abouna issued a statement of claim in 1976 for wrongful dismissal. Successful, the judge granted him a \$100,000 settlement after concluding a medical staff appointment was a contract that had been broken.⁸ The defamation suit against Dr. McPhedran was dropped when he apologized for his comments about Dr. Abouna's surgical competence. On appeal, the settlement was reduced to \$10,000, after the Foothills Hospital confirmed that it would not have reappointed him on 1 January 1976.⁹

The fallout from this controversy was serious, particularly when one considers the negative patient testimonials, a petition, and criticism from future premier Ralph Klein and the Calgary mayor at the time, Rod Sykes.¹⁰ The CPSA were forced to grant Dr. Abouna permanent specialist recognition, as they had not limited his licence as a "deemed specialist" to the time he held his U of C faculty appointment. The provincial medical staff bylaws were changed to remove the associate category of appointment; this was

replaced with a year of temporary privileges. The government established a Provincial Hospital Privileges Appeal Board in 1979. Dr. Abouna appealed to it, although he had already been appointed head of surgery at the Kuwait University Hospital a year before. His appeal request was denied.¹¹

In 1980, the Canadian Association of University Teachers "censured and blacklisted" the University of Calgary because of its "flawed appeal process" and the "loss of academic freedom" that such a process implied.¹² The final blow came when the chair of the Foothills Hospital Board, Robert Black, was not reappointed by the premier in 1981. He was succeeded by Alvin Libin.

This experience underlined the importance of teamwork, and as such was an important reminder that the success of interrelated medical-surgical-academic-research programs depended on both the hospital and the faculty. While Abouna's appointments may have been easy to make, removing them were anything but.

Dr. Abouna would go on to perform 560 transplants by 1990, become the dean of the Bahrain Medical College, and receive the Albert Schweitzer Gold Medal from the Polish Academy. He died in 2016.¹³

was the most difficult issue to face Dr. McLeod during his deanship.

A month after the Abouna controversy began in June 1975, Premier Lougheed asked Dr. McLeod to consider becoming the chief deputy minister of community health and social services. Though Dr. McLeod declined the offer, the reasons he gave provided some useful insight into his career up to that point. He wanted further management experience in medical education and health care, he said, and the opportunity to address “patterns and systems of delivery of care.”³⁸ He also felt that recent changes in the operation of the ACC “might emerge as reasonable community models especially [if] linked with the hospital structure.”³⁹

The intern and residency programs, which had been hospital based and run by Foothills House Staff Committee, were directed by the RCPSC to come under the management of the university. In preparation, Dr. McLeod activated the Graduate Clinical Education Committee (GCEC) in 1975 and appointed as chairman Dr. Fred Parney, who was also the chairman of the Foothills Hospital House Staff Committee. Helpfully, the Foothills Hospital Board continued to annually guarantee the number of house staff positions for the coming year in order to facilitate recruitment.

With the passing of the new Medical Examiners Act the new provincial chief medical examiner, Dr. John Butt, chose to locate his office in the U of C medical school.⁴⁰ His appointment to the faculty assisted in the development of forensic residency training in psychiatry and pathology.

Despite the temporary period of austerity, by 1975 the faculty’s budget—totaling \$4 million for the 1974–5 year, with a further \$1 million coming from research grants and \$378,000 from joint appointment funding through the Foothills Hospital—was large enough to fund 77 GFTs and 240 part-timers, adjunct appointees, and support staff.

The year ended on an optimistic note when the BOG sent the Sugars report on the cost of medical education at the U of C to the government.⁴¹ E. G. Sugars, a U of C business school professor, found the cost per medical student was greater in Calgary than in Edmonton because the U of C faculty had fewer (three as opposed to four) classes of students; as well, library costs were higher at U of C, as there were fewer health-care faculties to apportion the cost. The Sugars study also concluded that Alberta medical faculties were underfunded compared to others in Canada. Dr. McLeod hoped this would accelerate the increase in the number of faculty positions, which it did over the next several years.⁴²

For the undergraduate program, the faculty agreed to accept its original goal of 72 students in 1976, which represented an increase from 64 the previous year. On campus, more medical courses were being offered (24 full-year courses plus 11 half-year ones). PhD students now totalled 10, with 25 in the MSc program. Research grant awards exceeded \$1.2 million. Five new faculty received grants, and publications increased. Sixty-five visitors came to tour the school and make presentations. Second-floor renovations in the HSC started at year’s end, accounting for \$1 million of the \$1.7 million remaining surplus.⁴³

Dr. Clarence Guenter was appointed professor and head of medicine in April 1976, after Dr. Watanabe accepted the associate dean (education) position in March of the same year. One of Dr. Guenter's initiatives was to create divisions within his hospital department, including rheumatology (at the CGH), gastroenterology, neurology, endocrinology, and respirology. Residency training programs were commenced in each one.

The 1975 LCME and RCPSC Survey

As planned, the LCME and RCPSC resurveyed the faculty from 14 to 17 April 1975.⁴⁴ In preparation, the faculty had made a determined effort to improve the documentation of its policies. Shortly before the 1975 site visit, an application to start a third surgical subspecialty residency training program in plastic surgery was prepared (the other two already approved were in neurosurgery [1971] and orthopedics [1972]). Calgary firefighters offered funding to renovate and equip an intensive care burn unit at the Foothills Hospital. The RCPSC surveyors approved the application in their report.⁴⁵

The surveyors found that the jointly appointed professors/heads were satisfied with their working relationships and had few difficulties to share. Their primary responsibilities remained recruiting faculty. The Foothills Hospital was described as an excellent teaching hospital, although the faculty and students referred to some tension between the hospital and the medical faculty.

The RCPSC surveyors noted there was a shortage of teaching space for residents on the Foothills Hospital nursing units. The overlap between the Foothills Hospital House Staff Committee and the faculty GCEC when it came to decision-making, they suggested, should be re-examined. The ACC also remained underdeveloped. So did the involvement of specialty residents in the Foothills Hospital emergency department.⁴⁶

Compared to other medical schools, the percentage of the faculty's budget reserved for teaching salaries was higher than the average.⁴⁷ Many divisions remained short-staffed, especially in internal medicine. Some junior faculty members were inadequately protected from excessive administrative and teaching loads, but cohesion and enthusiasm abounded.⁴⁸

Dr. F. J. Rounthwaite, the chief RCPSC surveyor, initially felt that every program should be placed on probation, but yielded to a group recommendation that left only the obstetrics and gynecology, pediatrics, and psychiatry programs on probation, primarily for their lack of office practice and ambulatory experience.⁴⁹ Both survey teams noted the absence of an updated affiliation agreement with the Foothills Hospitals, leading to a request for an update in three years.⁵⁰ The LCME team also underlined that "a clear decision about the future development of the ACH [needed to] be reached, soon."⁵¹

Dr. McLeod's awareness of the value of the accreditation process itself was evident. He accepted a 1975 appointment as the RCPSC representative on the board of the Canadian Council on Hospital

Accreditation (CCHA). The next year he became the CCHA's chairman.

The Alberta Children's Hospital, 1973–1980

The location of pediatric services in Calgary was partially settled by the Advisory Committee for the Multiply Handicapped (Burgess) Report to the Minister of Health in July 1972. The government confirmed the multiply handicapped facility location on the 17th Avenue site, and announced on 20 March 1974 it would include in the facility a diagnostic and treatment (DAT) centre, an expanded outpatient program, the Gordon Townsend school, and a Kinsmen-supported genetic, developmental, and laboratory research unit.⁵²

Then a serious difference of opinion arose when Dr. Holman publicly contradicted the faculty's support for acute pediatric care on the Foothills site. Instead, he supported the location of both acute and multiply handicapped facilities on the ACH's 17th Avenue site, as recommended in the Burgess report. The dean accepted his resignation in January 1974.⁵³

On 2 October 1974, Health Minister Neil Crawford (1931–1992) met with the Foothills Board and then confirmed that a major decision on the location of a combined (acute and multiply handicapped) Child Health Center (CHC) would be made, but did not indicate when.⁵⁴ Concerned, Dr. McLeod reaffirmed the faculty's position and then met with representatives of the Foothills

and ACH Boards on 15 January 1975 to discuss it.⁵⁵ He emphasized how important it was that all acute care pediatric facilities be located at the Foothills Hospital site, regardless of what board managed them, and how the 17th Avenue location would negatively affect the faculty's teaching and research programs and divide pediatric health care in the city.⁵⁶ At the same time he accepted the appointment of Dr. Robert Haslam as the new director of pediatrics on 5 February 1975.

Dr. McLeod was deeply disappointed to learn in April that the government had decided the acute and multiply handicapped facilities would be integrated in the CHC and located on the ACH site.⁵⁷ The decision was formally announced on 20 June 1975 by Hospitals Minister Gordon Miniely. All new pediatric facilities would be located on the ACH's 17th Avenue site under the ACH Board. The government allocated \$20 million for the expansion. There would be no additional pediatric beds built.⁵⁸

The ACH was fully opened by 1981. The Foothills Hospital transferred its two acute pediatric care units, together with their staff, to the ACH in 1982, as was all pediatric resident training, by March 1982. The remaining specialized pediatric programs (emergency, neuro, cardiac, etc.) gradually moved to the ACH over the next fifteen years, except for the ICN, burn care, and radiotherapy, which remained at the Foothills Hospital. Dr. Haslam, the ACH professor and head of pediatrics would subsequently accept the position as pediatrician in chief at the Sick Kids Hospital (1986–96) before returning to Calgary again in 2000.⁵⁹

The Concept of “Brain Industries”

As the austerity of 1972–3 deepened, Deans Cochran and McLeod of the U of C and Mackenzie of the U of A began looking for additional government funding, preferably directly to their faculties.⁶⁰ The deans may not have been familiar with the principles that Premier Peter Lougheed had enunciated in 1966 in an effort to create investments with long-term horizons and the potential for accelerated growth.⁶¹

Fiscal relief came when the oil royalty and taxation issues were settled, and oil prices, together with provincial revenues, began rising. Immediately after his government’s re-election on 26 March 1975, Premier Lougheed announced his economic diversification plan. The government proposed to set aside 30 per cent of its oil revenues into a Heritage Trust Fund.⁶² The proposed fund would support health services and facilities, including what Lougheed termed “brain industries.”⁶³

The distant voice of MRC president Dr. Malcolm Brown was heard when Drs. Keith MacCannell and the U of A’s Ernie McCoy, the provincial MRC representatives, returned from their annual meeting in 1975 relaying Dr. Brown’s question, “Would the [Alberta] government be open to funding medical research?” The federal government was already curtailing its MRC contributions (at \$58 million in 1975), while inflation was increasing at 7 to 10 per cent and research costs were increasing from 5.3 to 11.7 per cent per year.⁶⁴

Following indirect overtures to the premier’s office, the reply came back that the premier would consider medical research as a “brain industry” but that any brief to the government had to be a joint one from the two medical faculties.⁶⁵ Encouraged to pursue the premier’s “brain industry” opportunity, Dean McLeod appointed Drs. Veale and Watanabe to prepare a report that recommended the establishment of an Alberta Heritage Health Research Fund.⁶⁶ (They were assisted by Drs. Neil Madsen and Ernie McCoy from the U of A.)

Eight days after the proclamation of the Alberta Heritage Savings Trust Fund, on 19 May 1976, Deans McLeod and Donald (Tim) Cameron (1920–2002) and AMA president Bryce Weir met with Premier Lougheed to present their request for a separate medical research fund. It was not rejected out of hand, but the premier did ask them to wait for the tabling of the cabinet’s science and research policy report later that year. The report ultimately concluded that the government had the responsibility to support research for the two largest programs it funded—health and education.⁶⁷

On 24 March 1977 the cabinet appointed a Health Research Task Force chaired by Dr. John. E. Bradley (1917–2004) to study the proposal. In their report of 2 June 1977, the authors recommended that 1 per cent (or \$50 million) of the health and social services budget be used each year for research and that a foundation be created to manage this spending. Dr. Bradley had already asked Dr. McLeod to identify the direction of medical research at the U of C. In his reply, Dr. McLeod made three points: (1) future research at the

U of C would be based on current areas of strength, although these varied widely; (2) research would continue to be multidisciplinary, with the focus on certain current problems covering the full spectrum, from bench to bedside; and (3) where the research theme was more general, recruitment of high-quality research scientists would be necessary.⁶⁸ The dean added that research recruitment would greatly strengthen the undergraduate, graduate science, and graduate clinical programs, but not in those areas where there weren't many research scientists, like pediatrics, the surgical subspecialties, and psychiatry. Support for more part-time clinical teachers, he felt, would be more effective in those areas.⁶⁹

On 2 August 1977 Premier Lougheed appointed Dr. Bradley as his special adviser on medical research. Three months later, the premier outlined the parameters for the foundation, including its new name—the Alberta Heritage Foundation for Medical Research (AHFMR).⁷⁰

Dr. Bradley revised his proposal and recommend that there be a separate board, a scientific advisory committee, and an international review every eight years. The deans indicated that the cost of research was \$150,000 per researcher and the space requirement was 1,500 square feet per research team.⁷¹ They added that graduate students, postdoctoral students, and visiting fellows would need to be funded, and there should be a clinical component to it. With Dr. McLeod's assistance, the first legislative draft for a foundation was completed by December 1977.

The U of C Faculty of Medicine was structurally prepared to do more research. It had designed central service areas (including facilities for growing micro-organisms, cleaning up and sterilizing equipment, and hot and cold rooms) to support medical research. Common research services had likewise been centralized (the vivarium, electron microscopes, instrument and analytical laboratories, radioisotope services, medical gases) to support basic and clinical research. There was space as much of the second floor was still undeveloped.

Meanwhile, the Committee on Research proceeded to develop guidelines for evaluating research work. Criteria included the number of publications and presentations, the impact of new techniques or hypotheses, the international reputation of the team, and its laboratory productivity, which would be measured by the grants received, the number of students on the team, the number of seminar presentations, etc. The committee was also restructured to increase the number of accredited research users and to decrease non-accredited users.⁷²

Cancer Care Moves to the Foothills Hospital Site

Since 1968 the Alberta Cancer Board had been pressing for the relocation of the HCH's Calgary Cancer Centre to the Foothills site. To this end, Dr. McLeod offered 20,000 square feet of space on the second floor of the HSC. A structural assessment concluded that the floor below should be

finished at the same time. The renovations were initiated using capital surplus funds augmented by corporate donations totalling \$700,000.⁷³

In 1974 the faculty turned down a proposal to create a cancer institute, but it did agree to create a division of oncology. A year later the Alberta Cancer Board formally decided not to locate its forty-four-bed intermediate care unit within the medical school; it decided, rather, to move it to a 60,000-square-foot space in the proposed special services complex south of the Foothills Hospital, while leaving its oncology research unit on the second floor of the medical school. That way jointly appointed professors could participate in the undergraduate program, and students would be exposed to the clinical and scientific aspects of cancer care. An affiliation agreement to this end was signed by the faculty and the provincial cancer board on 21 October 1976.⁷⁴

A Gerontology Opportunity

FP director Dr. Morris Gibson's long-standing desire to establish a division of gerontology finally saw some progress in 1977. This was just a year before he retired. The joint appointment by the faculty of Dr. Gilbert Rosenberg as the medical director of the new multi-level, three-hundred-bed Vernon Fanning Auxiliary Hospital brought the first trained geriatrician to Calgary. A pleased Dr. McLeod indicated that the appointment would "increase our emphasis both on the clinical problems of the elderly and on the aging process."⁷⁵

The Fanning Centre opened on 1 January 1978, and immediately included rotations for FP and internal medicine residents. Aging research was expected to be limited, as there were few local investigators with an interest in the area. A multi-divisional review of the principles that should be used for expanding geriatric care was conducted by Drs. McQuitty, Rosenberg, and Guenter.⁷⁶ They concluded that the problems of aging require greater understanding and concern than they had been given and that, as a result, a broad effort was required; family practitioners and specialists should continue to care for those they already saw, rather than segregate care based on age. Support from both the U of A and U of C for an institute of gerontology in Alberta was approved in principle but not supported by the government.⁷⁷ The initiative did not progress and no more geriatricians or geriatric psychiatrists were hired. Disappointed and discouraged, Dr. Rosenberg left Calgary in 1980. It was only in the last years of the Watanabe deanship that geriatricians were again recruited to Calgary and both clinical and academic programs in aging were launched.⁷⁸

More Progress

Under discussion for almost ten years, the Foothills Hospital special services building was formally approved for construction in October 1977. It contained programs and services that either lacked the requisite space or were non-existent. Eventually costing \$92.5 million, the facility provided 200 auxiliary (long-term care) beds, 44 cancer beds

(operated by the hospital), a therapeutic oncology program, more radiological services, a dental unit, and increased warehouse space for more dialysis patients and psychiatric services.⁷⁹

Despite ongoing faculty involvement since 1971, not everything was going well at the Morley Health Centre. The centre's latest director, Dr. A. J. Cunningham, summarized his observations: the two full-time and one half-time physicians at the centre were only serving 1,000 of the 2,000 residents; the other half used family practitioners in Banff, Cochrane, or Calgary. That was more than double the normal doctor-population ratio, and as such it was not sustainable. To the chagrin of the band, medical coverage and twenty-four-hour ambulance services were cut back, although the family medicine residency elective rotations continued. Idealism, expectations for a hospital, and cultural differences were straining the service.⁸⁰

By 1977, the original clinical professors and heads were beginning to change. Dr. Parney, the director of anesthesia, stepped down to become the department's program director. Dr. Brody, the director of obstetrics and gynecology, unexpectedly passed away. Dr. Hugh F. Morrish (1931–2013), the long-standing deputy director, replaced Dr. Duggan, who retired as the director of diagnostic imaging.

When Dr. Parney became ill the next year, Dr. Gerald McDougall accepted the position of GCEC chair and program coordinator in 1978. Jocelyn Lockyer joined him. They were initially charged with revising the terms of reference for

the postgraduate and CME programs. The GCEC also developed a five-year projection for postgraduate trainee numbers.

The first College of Family Physicians of Canada (CFPC) accreditation visit was held in 1977. The subsequent recommendations led to considerable correspondence between the CFPC and U of C division head Dr. Morris Gibson. The difference of opinion was smoothed over by Dr. McLeod, who had already become an experienced Royal College surveyor.⁸¹

The Faculty Prepares a Five-Year Development Plan in 1977

In response to the vice-president's request for a five-year development plan, Dr. McLeod tabled the faculty's plan in November 1977.⁸² He acknowledged that the faculty was preparing for more growth (from the AHSTF and the AHFMR) with enthusiasm and impatience. He also made clear that the basic sciences would be emphasized in any plan, as the faculty was in the bottom half of Canadian medical schools when it came to its GFT staff-student ratio.

The study began by revisiting the faculty's original 1971 objectives. From the study came a set of twenty-four specific and achievable goals that focused on education, research, and service.⁸³ The McLeod plan aimed to add to the faculty's existing strengths on a multidisciplinary basis, pursue a full spectrum of bench-to-bedside research excellence, attract new young scientists, and upgrade

clinical teaching programs.⁸⁴ Long-term objectives focused on improving research linkages, adding to U of C's allied health programs, reducing dependence on the affiliated hospital funding, and improving the ACC setting, but not establishing institutes.

However ambitious the plan, Dr. Guenter pointed out that it failed to focus specifically on teaching students to self-learn; only then, he argued, would they become "the more exciting product we all dreamed about in the past, the student who defines his own objectives and pursues them throughout his career."⁸⁵

On the negative side, U of C's MCC placings continued to slip, as they had since 1974. Seven students did not write the MCC exams, although they passed a later exam. In 1977, four passed on a deferred basis, with the 1977 graduating class ranging from second to twelfth (of sixteen Canadian schools). The best results were in psychiatry.⁸⁶ Deficits were especially noted in clinical skills, geriatric medicine, industrial and occupational health, computer applications in medical practice, basic medical science knowledge for future academics, and health-care-system knowledge and understanding. Disconcertingly, the graduating class averages slipped again the next year, to tenth and ninth place on parts A and B of the national exam.⁸⁷ A determined all-faculty approach led to everyone passing the MCC exams and white gloves for the dean in 1979.

Initiation of the 1978–80 Task Force on Self-Assessment

With the 1977 five-year development plan in place, Dr. McLeod directed his attention to the pending 1980 accreditation survey. He sought support for a major internal "self-assessment" at the 12 January 1978 meeting of the FC. It was supported by William A. Cochrane the U of C president, and Vice-President Peter J. Kruger.⁸⁸ His rationale was that the LCME recommended a periodic assessment be undertaken and the FC had asked for a five year follow-up to the organizational review in 1972.⁸⁹ Further, there were exciting opportunities at hand, like the formation of the AHFMR.

Upon receiving agreement for his proposal, a task force with sixteen faculty members and one student was appointed to examine the faculty's objectives and priorities, organization, administrative and divisional structure, and operation. The FC also asked that the faculty's priorities or weighted objectives be addressed.

The process began with every division being asked for a self-assessment of the strengths, weaknesses, and issues they faced. To validate the current curriculum, Dr. McLeod sent out a lengthy questionnaire to all members of the class of 1973. It was a follow-up to Dr. Cochrane's original expectation that feedback from students and graduates would be sought.⁹⁰

On the Foothills Hospital side, Dr. Guenter declared the hospital's development stunted, and he challenged the Foothills Hospital MAC and Board to develop a long-range plan and review its

own performance. That led to a revisiting to the hospital's 1974 Roles and Goals report, which had identified "centres of excellence" for the hospital. In October 1979, the MAC tabled forty-eight documents that related to the hospital's future, along with a revised Present and Future Roles statement.⁹¹ To help meet the goals laid out in the faculty and hospital documents, the hospital agreed to request twenty-six full-time and thirteen part-time GFTs from the government to staff the proposed programs.

The hospital also declared its intention to become more of a tertiary care and referral hospital, by increasing its specialist and intensive care facilities; constantly evaluating the role of family practitioners; giving primary consideration to the Faculty of Medicine in the development of future programs and facilities; and by participating in and facilitating research into new methods of patient care for the people of Southern Alberta.⁹²

The quality and expertise of the Foothills Hospital's medical staff appointments was making an impact on its role as a referral centre. Admissions from non-Calgary addresses had increased from 17 per cent in 1970 to 31 per cent in 1978. Perinatal transports, which had previously been non-existent, climbed to 202. FP admissions had dropped from 37 per cent to 28 per cent in the same period, while the faculty members had increased to 113 full-time equivalents (FTEs), plus 6 major part-timers and 219 adjunct part-timers.⁹³

Despite these changes, the deputy minister of health revoked Dr. McLeod's position on the Foothills Hospital Board, along with that of

Mr. Coombs, "to avoid the Dean speaking to the Foothills Administrator through the Board."⁹⁴ In lieu of formal membership, the board asked Dr. McLeod to continue to attend its meetings as a guest, which he did until 1981.

The History of Medicine Course and the Hippocrates Statue

A program on the history of medicine, initiated by Dr. Cruse in 1972 as an elective course for surgical house staff, was extended to all interested students in 1978. It prospered and led to the creation, in 1991, of a two-day national medical student conference, known as History of Medicine Days.⁹⁵ Following another suggestion by Dr. Cruse, four statues of Hippocrates, Socrates, Krito, and Plato were commissioned and given to the university by the city's Greek community. This effort was led by ninety-two-year-old restaurateur Jimmy Condon (Demetrious Kouimgis), the owner of Nick's Steak House in Calgary.⁹⁶

Located in the atrium, the Hippocrates statue was dedicated as "a symbol of the continuity of ancient wisdom and modern learning" on 20 November 1980.⁹⁷ The donation initiated the reintroduction of the Hippocratic Oath at the convocation ceremonies.⁹⁸ The other three statues were erected on the main U of C campus.

8

Dr. Peter J. E. Cruse, Infection Control Leader and Medical Historian

*Seek out that which is noble in our past
and make it a living ideal in our lives.*

—Dr. Peter Cruse¹

No faculty can ever have enough Dr. Cruses. Born in South Africa in 1927, trained as a surgeon in Britain, Dr. Peter Cruse worked briefly on Dr. Christaan Bernard's team. Although his father was a professor of history at Stellenbosch University, he chose to raise his family in Canada, completing his FRCSC at the Colonel Belcher/HCH hospitals under Dr. Smitty Gardner in 1966 at the age of thirty-nine.²

Asked to rejuvenate the HCH's Infection Control Committee in 1965, he discovered that the most common surgical complication, post-operative wound infections, was occurring at a rate of 0.2 per cent. He viewed this as a gross understatement. Uncovering a new National Institute of Health classification system (clean wound infection rate, or CWIR), broken into clean, clean contaminated, contaminated, and dirty wound infection rates,³ he compared the HCH rates with the newly opened Foothills Hospital (1966), in

two consecutive six-month study periods. The overall rate went from 8.4 to 3.7 per cent (CWIR 4.2 per cent at HCH) and from 5.7 to 2.2 per cent (CWIR 2.7 per cent at the FH). Both were well below the rates reported in the literature.⁴

By confidentially providing individual CWIR feedback to each surgeon, while encouraging meticulous hemostatic surgery, the rate continued to drop at the FH. Some months the rate was actually zero. The Centre for Disease Control followed his lead (initiating the CHIP and SENIC projects) and found hospital rates dropped 38 per cent in their monitored hospitals.⁵

Cruse's prospective study continued for twenty-two years.⁶ By applying the TACT + FACT = low CWIR formula, the CWIR averaged 1.2 per cent.⁷ Dr. Cruse gave over 120 visiting lectures in 18 countries and wrote 19 articles and 10 book chapters, which were translated into 4 languages. Unfortunately, the classification of wound infections was changed to surgical site infections by the NIH in 1992, relegating comparisons with his study to history.⁸

Wound infections were not Dr. Cruse's only interest. He promoted the integration of staff by initiating FH summer picnics, the annual medical staff ball, and later a medical-staff-sponsored

stampede-week breakfast. He also designed a crest and a tie for the hospital.⁹

To promote the FH as a trauma centre, he initiated twenty-four-hour coverage of the first intensive care unit, and organized trauma symposiums in 1967 and from 1971 to 1975.¹⁰ His goal was highlighted when an oilfield worker was impaled on his truck seat on a bridge rail guard. It took ten hours to extract and transport him to the FH for life-saving surgery.¹¹

Appointed an adjunct professor and then the second surgical GFT in 1975, he succeeded Dr. N. T. McPhedran as the professor and head of surgery from 1981 to 1988.¹² During his tenure he merged the HCH/FH open heart surgical units, began the Surgical Research days, and started a pre-operative clinic to reduce pre-operative stays—and in so doing, contributed again to decreasing CWIR rates.

Dr. Cruse also had an avocational interest in medical history, stemming from his father's career as a historian and evenings spent with neighbour and medical historian Dr. Earle Scarlett. He was surprised when the new U of C medical curriculum contained no instruction in the history of medicine.¹³ And so he introduced his own solution, designating the Hunter and Lister surgical nursing units and initiating 7:00 a.m. presentations on various topics in the history of medicine.¹⁴ The program ended the year with a

banquet. Later he convinced a local restaurant owner, the Greek-born Jimmie Condon, to fund statues of Hippocrates (for the medical school) and Socrates (for the university). The life-sized Hippocrates statue still stands in the atrium and has become a faculty touchstone.¹⁵

The popularity of the history of medicine program increased after it was offered as an elective in 1978. Mentors were found for each student and topic. Up to 60 per cent of the class participated. An annual year-end conference was added, to which invitations were extended nationally in 1991.¹⁶ Each year over 60 medical students attend the History of Medicine Days and are assessed on the content, research, and elocution of their presentations.

In 1992 the Alberta Medical Foundation initiated funding for an AMF/Hannah Chair in Medical History at the University of Calgary. Dr. Cruse was the initial occupant.¹⁷ Locally, he began the Calgary History of Medicine Society (CHOMS) and their newsletter (CHERION). With his ophthalmological colleagues, he successfully recommended Dr. Harold Ridley for knighthood for the first cataract extraction and IOL implant in 1949.¹⁸

Dr. Cruse is remembered through awards given to students at Surgical Research days, the RCPSC historical presentations, and Calgary's History of Medicine days.

Medical Research Receives a Boost

Nationally, Health Minister Monique Bégin announced a turnaround in the level of federal support for the MRC. The federal MRC grant was increased to \$63 million, and a five-year projected budget ensured more predictable funding.⁹⁹ Faculty research grant applications were becoming increasingly successful, with the faculty receiving \$2.295 million in grants in 1978.¹⁰⁰ In spite of the effect of oil price cycles on the provincial economy, the university's now centralized development office was making progress in fundraising. It provided \$750,000 worth of equipment requests to the faculty.¹⁰¹ Dr. Morley Hollenberg's ocular research received a boost when the Lions Clubs of Southern Alberta raised over \$250,000 in two telethons. These funds were matched by the government and used to purchase three ocular-specific electron microscopes to study individual normal and abnormal cells of the retina.¹⁰² At the same time the Kinsmen Club gave a donation of \$34,247 for geriatric care and research.

Dr. Keith Cooper, the division head in physiology—received his DSc from Oxford for his research into the mechanisms that determine and controlled body temperature—was appointed the U of C associate vice-president (research) at the university. A year later, he began a 5-year term as the vice-president (research).

Diabetic research received a huge boost with a \$1.25 million gift (\$250,000 per year over five years) from an anonymous donor—the largest single donation to the faculty to date. The donation, which

began in September 1979, led to the creation of the Julia McFarlane Diabetes Research Centre.¹⁰³

A visit by Premier Lougheed to several on-site research laboratories in 1979 gave him an indication of the research that was being done and how little space was still available for the proposed medical research foundation his government was planning. At the same time, Mr. Lougheed announced funding through the AHSTF for upgrades in the CVS units in Calgary. This led to Dr. Eldon Smith being recruited to head the Foot-hills Hospital cardiology program.¹⁰⁴ The approval of a residency training program in cardiology by the Royal College followed in 1981.

As part of the faculty's Task Force on Self-Assessment, Dr. Guenter, now the chair of the Committee on Research, met with every research group and division head to review their research progress, aims, and needs. His recommendations were that the renal group split from immunology, the blood group disband, the behaviour group join with psychiatry, and CVS-R be divided. GI was felt to need basic scientist help. Oncology and infectious diseases needed better funding. Surgical research was underdeveloped while the Division of Education, Planning and Assessment needed to do more research. The basic science groups Dr. Guenter found were doing well.¹⁰⁵

Organizationally, the faculty reached 154 GFTs and 29 major part-timers, with 294 adjunct appointments. The faculty's budget in 1978–9 totalled \$7,789,000, increasing to \$9,115,000 the following year. Research grants added up to \$2,737,000 out of a total of \$8.3 million for the

university as a whole in 1979. Two-thirds of the faculty's funding was coming through the university and 35 per cent from the hospitals.¹⁰⁶ Reflecting back on the faculty's circumstances during this period, Dr. McLeod noted that

we were unable to mobilize adequately a thrust beyond solid patient care and teaching programs and a few islands of research strength. Research strength was sufficiently limited that teaching and particularly clinical teaching could not be built upon a solid scientific base.¹⁰⁷

Forming the AHFMR and “Doing it Right”

Having confirmed the government was “open” to creating a separate medical research fund distinct from the AHSTF, the premier set about “doing it right.” He appointed Dr. John Bradley as his special adviser on medical research on 2 August 1977. Dr. Bradley would take almost three years to contact or visit 250 medical research institutions in North America and Europe to determine the best framework for the foundation and its relationship with the government.¹⁰⁸

To validate the AHFMR proposal, Premier Lougheed organized the first government house dinner on 19 March 1978 for a small group of medical and academic leaders. When asked how much money should be made available, the audience provided a range of sums, from \$6 million

to \$20 million. The premier then announced that he was prepared to set aside \$300 million, which would earn \$30 million per year from interest.¹⁰⁹

On 5 March 1979, the premier publicly announced the impending AHFMR proposal, shortly before his second government house dinner on 28 June 1979. In October the premier visited Harvard University and met with Albertan and the future Harvard dean of medicine Dr. Joseph Martin. Martin was impressed with Premier Lougheed's understanding of the issues and challenges facing the proposed AHFMR, particularly his desire to keep it at arms-length from the government.¹¹⁰

On 26 October 1979, Bill 62 was introduced to the provincial legislature. All three parties supported it. Four months later, on 19 March 1980, the AHFMR Act was proclaimed and its board, including chair Eric Geddes (1926–2002), was appointed. The premier met with them to discuss their mission. He concluded the meeting by saying, “I'll see you after the next International Board of Review visits [in 7 years], but my door is open.”¹¹¹

The fear that MRC funding would be diminished or replaced by AHFMR funding proved unfounded. The Quebec formula was applied to Alberta funding requests, as Rene Simard indicated. That is, “if the grant application was accepted by both the provincial and MRC bodies, then MRC funding was accepted.”¹¹² It also helped the U of C that Dr. Watanabe was appointed the chair of the ad hoc Scientific Advisory Committee (SAC) in 1980. In time, it was found that some grant applications were declined by the AHFMR SAC but

accepted by the MRC, as their quality improved so significantly.¹¹³

The 1977 Five-Year Development Plan Is Updated

As the task force's report was being completed, Dr. McLeod was asked by the vice-president to update the faculty's five-year development plan. Completing it on 3 December 1979, he predicted that, "if thoughtfully exploited, the medical school should evolve into one of the finest academic medical centres in Canada."¹¹⁴ There was a unique opportunity, he said, to create new programs in basic and clinical research through careful planning and recruitment, thereby fostering an environment conducive to productive scientific enquiry. While the AHFMR might contribute to improve staff-student ratios, he felt it would not address the GFT shortage in divisions that did little research.

Seven research programs were already showing strength.¹¹⁵ Further, the criteria and guidelines to identify some of them as "institutes of research" were under consideration, given the substantial growth that was expected.¹¹⁶

Dr. McLeod felt there were four priorities the faculty should follow: (1) develop and secure grants and strengthen the current "full-spectrum" research groups; (2) recruit new research groups identified by the Committee on Research; (3) develop plans to upgrade other academic groups that didn't provide a full spectrum of cell-to-bedside

research; and (4) recruit new young scientists who had an ability to teach.¹¹⁷

Educationally, Dr. McLeod felt the faculty remained unduly dependent on non-university funding sources (e.g., the Foothills Hospital, ACH, and the provincial cancer board). More university funding would be needed to upgrade and expand the clinical teaching programs.¹¹⁸ Dr. McLeod predicted that the number of approved residency programs would reach between 27 and 30. Resident numbers would likely increase from 215 to 260, and more hospital funding of joint appointments would occur. The need for up to 50 more teaching staff, Dr. McLeod felt, might be reduced if medical researchers contributed up to 50 per cent of their time to clinical and academic work.¹¹⁹

Other issues identified by Dr. McLeod included the need for more effective linkages with the affiliated hospitals, especially the Foothills; growth of the allied health education programs; the development of institutes whose role and nature would have to be determined; decreased dependency on affiliated hospital funding; and an improved ambulatory care setting for clinical education.

As the Foothills Hospital developed into an academic health sciences centre, Dr. McLeod felt that areas of excellence were needed in the other hospitals such as musculoskeletal diseases at the CGH and pediatrics at the ACH. The maturation of the Foothills Hospital, he wrote, was complicated by its underfunding and its role as both an academic and community general hospital.¹²⁰

The 1979–80 Task Force on Self-Assessment Report

The task force that Dr. McLeod had appointed in 1978 tabled its report at the EFC meeting held 19 March 1980. It amounted to a comprehensive analysis of the status of the faculty.¹²¹ The report began with the objectives of the faculty, which were described as follows:

1. to produce doctors specializing in family medicine;
2. to produce well-trained doctors for the clinical specialties;
3. to provide an environment conducive to research;
4. to improve medical education through ongoing evaluation;
5. to produce doctors qualified in the approved specialty programs;
6. to produce medical scientists;
7. to provide CME for family physicians and clinical specialists;
8. to provide high-quality health services;
9. to foster the delivery of health services to the community;

10. to provide learning experiences for allied health professionals; and

11. to support and contribute to public health education.¹²²

The objectives were then prioritized in the following order:

1. to produce doctors in family medicine and the traditional medical specialties;
2. to provide an environment conducive to research, education, and the delivery of healthcare services;
3. to produce doctors qualified in those specialties, and medical scientists;
4. to provide high-quality health services through the ACC and other institutions;
5. to provide continuing education learning experiences for the allied health professions; and
6. to contribute to public health education.¹²³

The committee concluded that 50 to 60 per cent of graduates from the U of C Faculty of Medicine had chosen FP.¹²⁴ Research, it was felt, needed to be given the same priority as graduate education,

with the expectation that more students would choose research as a career path.¹²⁵

Organizationally, the senior structure of the faculty now had four associate deans (for undergraduate education, research, graduate clinical and continuing medical education, and professional services), three assistant dean positions (education, research, and the ACC), and administrative assistants for finance and administration.¹²⁶ The report recommended that the EFC, which the dean chaired, remain the senior executive body with four more members added. It was to have the associate deans and twelve standing committees periodically report to it and was to remain responsible to the FC. The separation of policy formulation and implementation was viewed as artificial and impractical, too often leading to an unclear designation of who was responsible for the solving a particular problem.¹²⁷

The task force found the clinical division heads received demands from multiple origins and were often forced to deal with two or three institutions, especially when it came to recruitment. The faculty's reputation for recruitment was poor. There was no identifiable geographic focus for the basic medical sciences. Middle management was underdeveloped. The divisional structure needed to be strengthened and research groups demonstrate more effective leadership. Further, divisions should be called departments, as they were in the hospital.¹²⁸

Standing committees were found to be adequate, but some tidying up in their terms of reference was needed. The Admissions Committee

needed to establish admitting criteria and computerize its data bank. Student Affairs needed to promote more contact between medical students and the faculty as well as medical students and graduate (MSc, PhD) students. More counselling and social interactions were recommended. The Space Committee needed to be reactivated and provide plans to increase staff densities, find more seminar space, and seek better use of the secretarial spaces. The Committee on Research was encouraged to be more vigorous and to better monitor what was occurring among faculty members. The variable quality of graduate students needed to be addressed. The Curriculum Committee itself made forty-four statements and recommendations. Greater involvement of part-time faculty together with additional funds for teaching were needed, along with more CTUs, more community-based clerkship rotations, and an expansion in the number of continuity-of-care patients assigned to undergraduates. Curriculum evaluation needed improvement. A database indicating the teaching duties of each faculty member would help to better distribute the load.¹²⁹

A broader postgraduate self-assessment committee, composed of program, hospital, and resident representatives, was needed. Resident evaluations were weak and, in some cases, not given to the resident. Self-assessments of the strength and weakness of the sixteen approved programs was valuable and was later extended to FP. A standing committee on CME had been appointed and had drafted a two-year plan to address the lack of research into the program's effectiveness, the lack of

a regional nucleus of interested doctors, the variable quality in the presentations, and how many staff had responsibilities in another department. CME for specialists was also needed.¹³⁰

The divisional review found a lack of community health teaching in the clerkship, a lack of community agencies in the ACC, an absence of community teaching beyond the ACC, the Cochrane clinic, and the Morley Centre, and an unclear set of objectives. The DEPA workload was heavy, with the director spending a quarter of his time assisting the Faculty of Law (which had been formed in 1975). FP needed more resources, especially at the HCH. The medical biochemistry division had seen its involvement in undergraduate education diminish, with its members' teaching "taken over" by the clinical scientists. In medical biophysics, there was no clear role for the division or a critical mass of staff—only two full-time faculty with divergent interests. The internal medicine division needed a recruitment plan for developing future subspecialty programs and an expansion of its section in the clerkship.

More anatomy teaching in the form of horizontal themes was suggested. A shortage of histopathologists was noted. Pediatrics had strengthened considerably, but the ACH's location and the paucity of research were clear disadvantages. Psychiatrists were in short supply to face a heavy service load and residents were hard to recruit. Surgery needed a recruitment plan beyond the five existing programs. No physiatry program existed.¹³¹

The task force also studied the benefits and pitfalls of three- and four-year undergraduate programs.¹³² The integrated three-year course had proven workable and successful for most students. The opportunity to request a one-year extension for slower students, or students who wanted to explore a research program or enter an MSc or PhD program, was supported. The recommendation for a more in-depth orientation for new faculty led to a wider dissemination of the Guide to the Educational Program brochure. Re-sequencing the teaching order of body systems in the undergraduate program was approved with growth and development becoming the first; this avoided having the same faculty teach every summer. It was also found that starting the curriculum a few weeks earlier gave more time for course assignments.

The most important recommendation was that divisions should become departments. The task force also recommended that microbiology and infectious diseases and the clinical neurosciences group become departments, bringing the total to seventeen.

The task force's draft report was presented and discussed at length before being tabled at the FC meeting of 23 May 1979.¹³³ The final report with specific motions, together with the dean's five-year plan and the 1980 accreditation preparation report, were all tabled at the FC meeting of 19 March 1980. Nine motions were approved. Four were internal to the faculty, including the list of priorities and the terms of reference for the division heads. Four required consideration by the BOG before they could be passed: to change divisions

to departments, add microbiology and infectious diseases as a department, drop DEPA and medical biophysics as divisions, and change the names of two departments to anatomy and radiology.¹³⁴

Board Approval of the Task Force Recommendations

At its meeting on 20 November 1980, the board approved the recommendations sent to it, including the renaming of divisions as departments.¹³⁵ The responsibility for DEPA was turned over to the faculty's curriculum committee, and eventually the Dean's Office. Medical biophysics was dropped as a division.

While lengthy, the whole process of creating a special committee to review the work of the faculty before an accreditation would become the norm. Performance by the faculty at every accreditation since 1970 has led to the granting of the maximum approval period possible, a record not exceeded by any Canadian faculty of medicine. The president, already impressed, initiated similar reviews of all the U of C faculties in the summer of 1979.¹³⁶

The 1980 Accreditation Surveys

The LCME and RCPSC made their scheduled surveys from 14 to 17 April 1980,¹³⁷ leaving Calgary the day before a strike by the province's registered nurses dramatically curtailed acute care in the city, with only the Foothills Hospital remaining open.

The LCME survey team complimented the work of the task force and the changes, improvements, and documentation that had followed its review. They included significant portions of it in their report but were left with two major concerns: the need to consolidate pediatric services, and the "veritable fantasizing" about the impact of the AHFMR.¹³⁸

The LCME recommended a full five-year accreditation but required the submission of a progress report in two years to address staffing and other resources available for education; the results of the current curriculum evaluation; the resolution of certain organizational issues surrounding the roles of the division and departments; and the resolution of the difficulties in specific divisions (pediatrics, psychiatry).

The RCPSC surveyors complimented the GCE committee on their many useful criticisms and conclusions in their 1979–80 residency program reviews. The survey chairman described as remarkable "the relationship between family physicians and specialists that exists on the wards in all the hospitals, which enable residents to learn how to be consultants to primary care physicians."¹³⁹

The Impact of the AHSTF and AHFMR

By the end of 1980, faculty medical research grants had reached \$4.9 million, with \$1.76 million coming from the AHFMR and \$1.9 million from the MRC. In the first six months of 1981, the AHFMR

made grants to the faculty totalling \$4.1 million to cover medical research studentships, fellowships, scholarships, establishment grants, capital equipment, and renovations. By late 1981, the faculty had received a total of \$8.8 million from the AHF-MR. Not surprisingly, the need for more research space was becoming evident in both Calgary and Edmonton, as all the U of C research space available had been allocated and renovated by 1978.

As the U of C faculty's growth continued almost unabated, the balance in faculty members between education and research began tipping toward research. In the seven priorities listed in the task force report and approved by the EFC, research had been raised to the same level as graduate education.¹⁴⁰ The 1981 budget reached \$12.5 million. There were 165 FTE positions. In the postgraduate programs, there were 55 MSc and PhD students. While the undergraduate intake remained steady at 70 students, the postgraduate resident total reached 244.

Using AHSTF funds, the \$4-million, 7,400-square-foot CVS unit expansion was opened on the ninth floor of the Foothills Hospital by Premier Lougheed in February 1981.¹⁴¹ This was followed by the Foothills Special Services facility, which opened in October 1981, providing more auxiliary, cancer, and dialysis beds, as well as expanded x-ray, dental, and psychiatric services, space for the provincial lab, and an internal shopping mall.

To Nepal

For a month during the winter of 1981, Dean McLeod and Dr. Melville Kerr, the head of the OB/GYN department, visited the Faculty of Medicine at Tribhuvan University in Kathmandu, Nepal. Dr. Kerr had been working, visiting, and advising the new faculty on how to improve medical education since it opened in 1977. Invited to attend the tenth All Nepal Medical Conference, held from 19 to 22 February 1981, the two faculty members were met by former Foothills Hospital surgeon Dr. Gerald Hankins, who had been working in Nepal for over ten years.¹⁴² The scientific program began with Drs. McLeod and Kerr giving the Mrigendra Medical Trust Oration on "Trends in Undergraduate/Postgraduate Medical Education."¹⁴³

Encouraged by the visit, Dr. Kerr prepared a proposal for a postgraduate training program in general medicine for Nepalese doctors. He asked that some of the twenty-two Nepalese medical graduates of Tribhuvan University come to Canada for postgraduate training and that faculty members from the U of C volunteer to go to Nepal to teach and train faculty there. The proposal was accepted, providing the staff member found someone to cover their commitments while they were away. Thus began the faculty's first international medical training program. In the years that followed, several Nepalese MDs came to Calgary and reciprocally, many faculty volunteered to go to Kathmandu.¹⁴⁴

Becoming the First President of the AHFMR

Shortly after his return from Nepal, Dr. McLeod resigned his position as dean. “A job,” he would later say, “should be for five years. By then you have done what you can. You have to do the work no matter how bright you are. Once you’ve been a dean, you can’t go back.” Or more succinctly, “you should leave before you have to leave.”¹⁴⁵

Dr. McLeod was offered the appointment as the first president of the AHFMR from among seventy applicants. In praising the selection, board chair Eric Geddes emphasized Dr. McLeod’s leadership at the U of C.¹⁴⁶

Advantageously, the price of oil was at a peak. Monies from the Heritage Trust Fund amounting to \$300 million were diverted to establish the AHFMR in March 1980. The incubation period had been prolonged, but the premier was satisfied that it was the most thoroughly researched policy legislation his government ever tabled. With the birth of the AHFMR, the second “golden age” for academic medicine in Alberta began.¹⁴⁷

The AHFMR would have a greater impact on the U of C than on the U of A, as it was younger, had earned fewer research grants, and its basic medical science divisions were less well developed.

Dr. McLeod would leave the deanship with a significant list of accomplishments together with a blueprint for the future, in June 1981.



Moramu Watanabe
OC, MDCM, PhD, FRCPC, D.Sc (Hon)

The Dean Watanabe Years, 1981–1992

James R. Wright, Jr.

After Dr. McLeod stepped down on short notice to become the first president of the AHFMR, it seemed clear to everyone—except perhaps the man himself—that Dr. Mamoru (Mo) Watanabe was destined to succeed Dr. McLeod as dean of medicine. Perhaps, this should have been obvious to Dr. Watanabe as well.

First, McLeod had known Watanabe for most of his professional career and had been cultivating a good relationship with him since they first met at McGill’s Royal Victoria Hospital, where Watanabe was a third-year medical student and McLeod a clinical fellow in endocrinology and metabolism. While both eventually went their separate ways, McLeod was planning ahead and made certain that they kept in contact. McLeod next pursued research training in the United States and then accepted a position as a division head at the U of A. Watanabe, meanwhile, followed his postgraduate clinical training with a PhD at McGill before going to the Albert Einstein College of Medicine in New York for postdoctoral training in molecular biology. As Watanabe would later note:

Lionel had noticed me in Montreal, wanted to recruit me to the U of A, so each year on his way to the nephrology meeting in Washington, DC, he would stop in New York, take me out for lunch or dinner and talk to me about the U of A. I had no interest in moving to Edmonton and McGill was expecting me to return. Also, Canada had created a teaching hospital research fund to support and encourage medical research, and every teaching hospital affiliated with a medical school was in the process of building a clinical research facility and every medical school was actively recruiting Canadians training in the United States to return to Canada. So I was juggling offers from a number of medical schools. During this time, the biochemistry department at the U of A was hosting an international conference

on virology and I was invited to make a presentation of my work at Einstein on RNA bacteriophages, so during this visit I allowed Lionel to show me around the med school and to talk to me about their research plans. The research activities in the clinical departments were still in the early stages of development, and I began to feel that joining the U of A would really test my abilities to succeed as an independent investigator, versus joining the established research environment at McGill or the University of Toronto, where, in my own mind, it would be more difficult to assess what I was contributing to the team effort. This naive thought, plus the concerted effort of Dean Walter MacKenzie, department head Don Wilson, and division head Lionel McLeod to recruit me, prompted me to accept the U of A offer.¹

Watanabe was also developing a pattern of following in Lionel McLeod's footsteps. Asked, for example, how he originally moved to Calgary, Watanabe replied: "It's all related to Dr. Lionel McLeod." He elaborated:

Lionel McLeod departed and moved to U of C as head of medicine and I inherited his vacated position as division head of endocrinology and

metabolism (at U of A), reluctantly, since I was not interested in being an administrator and my overwhelming priority was to establish my credentials as a serious researcher. I had also been appointed an MRC associate, which mandated 75 per cent of my time in research. About seven years later, Lionel became the dean of the Faculty of Medicine (at U of C) and invited me to look at the headship of medicine. I was not interested in moving since . . . I was still not interested in becoming an administrator. I did, however, reflect on where I could continue to do my best research, liked the multidisciplinary research groups at the U of C, and thought that as head of medicine I would be in a better position to protect my research time. I also felt that the new young faculty members in medicine needed a lot of guidance to survive and succeed in their research careers, especially in balancing their heavy clinical responsibilities and education roles, and to become more competitive at the national level. I felt I could help them.²

Most importantly, at Calgary Watanabe had served sequentially as head of the Department of Medicine, associate dean (education), and associate dean (research) under Dr. McLeod, so he knew the faculty's issues; there was, therefore, no one

better prepared to take over as dean. But Watanabe still wanted to focus on a research career and did not apply. According to Watanabe, the transitions occurred as follows:

Lionel was appointed as president of the AHFMR and he left the faculty on very short notice on 1 June 1981. Norman Wagner [1935–2004], president of the U of C, asked if I would take on the position of acting dean. I agreed to it because I felt it was an obligation having been in the position of associate dean (of both education and research) and since I was not going to be a candidate for the deanship, but I did warn Dr. Wagner that I would behave as the real dean, since marking time for a year would be disastrous for the medical school, especially at a time when AHFMR promised such tremendous opportunities. I did not apply for the dean's position, but near the end of the search process the secretary of the search committee asked for my CV so I complied, and the president offered me the position. Some important initiatives, most notably the building of the AHFMR building, had been put into place during my acting year and I was anxious to see them through to a successful completion, so I dropped the "acting" and slid into the deanship on 1 July 1982.³

Another major challenge facing Watanabe would be the "coordination of both the education and research activities of the faculty."⁴

The outcome of the search for a dean was not a surprise to most, as Watanabe's qualifications were exemplary and he had been succeeding in his role as the acting dean. Nonetheless, Dean Watanabe clearly had a different style than either of the previous deans. Bill Cochrane used to have coffee with students every day, either in the hallway or in the mall, and Lionel McLeod attended student parties and weekly TGIF celebrations. According to Watanabe,

[this] was a bit too much—it took an awful lot of time. I used to have coffee and if a student wanted to talk to me—that would be fine, but I certainly didn't make it a point of trying to be too friendly with the students. There are times when you do have to discipline students and so you can't be too close to them. You can't cloud your objectivity, but this is true with everybody below you as well—you can't be too friendly with [a] small number of department heads or small number of faculty members ever, because when there is an issue you can't play favouritism and you need to be a little bit removed, which is why it's a bit lonely at the top.⁵

Watanabe decided the best way to maintain his interactions with students and faculty was through day-to-day “real world” contact:

I continued my practice, I continued my research and I continued my teaching, and I said that it was important for me to do that because I wanted to interact with people in their normal activities—that is, you don’t want to be sitting in an office away from everyone and then having people come to you with their problems that become so huge that it couldn’t be solved. If you meet them in their own territory and they tell you about problems, you could nip the problem in the bud right then. . . . It’s a way of keeping in touch, not only with the activities of the faculty but also with the people.⁶

Having been able to observe the activities of the Dean’s Office while serving in back-to-back associate dean roles, Watanabe had considerable insight into its operations, and he felt that some areas needed attention. Therefore, he quickly implemented some changes:

I just worked longer hours and I worked harder than I ever did in my life and. . . I would come to work early in the morning, solve most of the issues, deal with the correspondence

and by nine o’clock be free for department heads or faculty members wanting to see me for some urgent issues. I didn’t like the idea of people being upset or angry or having a problem fester while waiting for somebody to listen to you. The dean needs to be open and accessible. I also told my executive assistant that we have to change the culture of the office of the dean. Prior to my time, the Dean’s Office used to be known as a place you would go to if you wanted a “No” answer. We are going to start saying “yes” and if you can’t say “yes” right away, you ask them to leave it with you and we will get back to you as soon as we can with a “yes” answer. I used to ask department heads to tell me what they wanted—tell me what you’re working toward, what is your vision, what is your goal, because I may not have the resources or the funding to support you immediately, but it’s very important I know what it is you want to do because I do get people walking in and saying I want to donate some money—then I can connect you to them.

You have to keep people dreaming a bit. When I said we were going to build the Heritage Medical Research Building, I asked faculty members to tell me what space they

needed to build, what we don't have right now. Their response was hardly a response. I said to the department heads that after many years of saying "No" to people—you can't do this, you won't do this—people have stopped dreaming, they don't want to ask for anything, afraid that the answer will be "No." So we had to get people to start dreaming again about what they wanted to do.⁷

Clearly, Dean Watanabe's manner of solving problems was different from the other deans, and it was certainly not top-down:

I would say the most important thing . . . for a leader . . . is you need to be able to listen to people and you need to have the time to listen to people. You need to make people feel very valued, you can't be inaccessible or not caring about what people think, and you need to help people solve their problems. A lot of the time people already have their own solutions. People would come and share their problems and at the end of the discussion I would ask them what they think they should do, and they would say, I think I should do this, and I would agree. They have the answer; they need to have someone validate it.⁸

Dean Watanabe was viewed as an excellent listener: "One of my strengths was that English was not my first language and so I am not very good at English, so I have to listen very, very carefully to what people are saying in case I miss the nuances, and so I think I come across as a good listener—it's because I am trying to understand what they are saying: that gives the impression that I am really listening."⁹

Dr. Watanabe understood that his department heads were experts in their fields and that he was not; they generally brought valuable input into most scenarios, and especially those involving their specialties. Therefore, he wanted to support their good ideas rather than try to change them to reflect his preconceived notions. This seemingly simple insight eludes many senior administrators, even seasoned ones, and was undoubtedly a key to his success as dean.

Dean Watanabe also prioritized the improvement of communications between the faculty and the Foothills Hospital administration, which he believed to have been suboptimal. To this end, he concluded that these interactions needed to be face-to-face and involve him directly:

And that brings me to what you cannot delegate. The one thing that I found you cannot substitute or delegate is that kind of interaction with people because it's very frustrating for people when they can't engage you in resolving an issue. Early in my deanship, in a meeting with Ralph

Coombs, the president of the Foothills Hospital, I said there were things that we really need to change. The [clinical] department head who goes to the president first would get shunted to the dean; and those who first approached the dean would be shunted to the president. I feared that department heads were shuffling back and forth between the dean and the president wondering what to do, never getting a satisfactory solution. I felt that the president and the dean needed to work it out together through frequent meetings. Even if there are no immediate issues there was a need for constant communication between the two organizations at the very senior level, to anticipate potential problems coming down the line. Later, on occasion the president tried sending one of his vice-presidents, which didn't work because the vice-president was not delegated to make decisions or commit to an action plan and the issue needed an urgent response.

During my time, I did not want to dilute the interactions between dean and department heads by delegating that function to someone else. When I first came to Calgary as head of internal medicine, I felt that department heads did not have any significant role or authority in the medical

school and the allegiance of clinical heads was more closely aligned with the Foothills Hospital. My impression was that the activities and policies of the medical school were largely dictated by the associate deans and research group chairs. When I became the dean, I was determined to give department heads a stronger voice in the affairs of the medical school, to make them an integral and important part of the administration. I wanted them to be strong leaders for the department, but I also wanted them to be leaders at the faculty level.

My view was that to build a successful medical school, one had to have strong and successful units, not just research groups but strong and nationally and internationally respected departments. That meant working closely with and helping department heads, especially the younger ones, to be successful leaders. To do so requires defining what is expected. My advice to department heads was to extract the very best possible performance from the departmental members, whether it is in education, research, or clinical activity, which may require very different strategies for different members because individuals are at different stages of their careers with divergent

skills and knowledge, with their own individual personalities. You have to be like the director of a movie—you need to know how an actor is going to respond to suggestions or commands to extract their best performance. And similarly, the dean’s job is to extract the best possible performance from department heads. So with some, kindness and sympathy is required, while with others you may need more harshness. To do so, I don’t know whether you can have people in between you and the people that you are trying to deal with.¹⁰

Dr. Watanabe, recognizing that the faculty’s educational mandate had been well stewarded under the previous deans, wanted to increase its level of research intensiveness. He was concerned about the faculty’s grant funding and research output. According to Watanabe:

One of the things that struck me . . . was that the clinical members were not using national or international standards in appraising their research contributions. Some of the researchers in clinical departments were quite happy to get one or two thousand dollars here and there from different donors for research projects that they weren’t ready or willing to submit as a grant proposal to a national fund-

ing agency to see if they meet national standards. I kept saying that we need to be doing research at the level of international and national standards. We need to be . . . proud of what we are doing because it can stand up to anybody’s scrutiny. Now, it’s very much more competitive, meeting international standards, but it wasn’t then. . . . As a new medical school you do have to set priorities on what to develop first and . . . you have to develop your educational programs first.¹¹

Watanabe was a big fan of the faculty’s research groups. In fact, he was initially attracted to relocate to the U of C as a department head because he believed that his own research program would flourish within research groups, and as dean he believed that these were a key to the faculty’s future research success:

Research groups are fairly strong entities and you have to assess them in relation to individual departments. Some department heads had no concept or experience with research and so would have had difficulty recruiting or supporting research scientists. Research groups were very important in that scenario. Department heads with strong research credentials probably would have preferred a more traditional system but I think most of

them, bathed in the overall faculty culture of democratic decision-making, could live with it. Research groups would identify candidates to recruit but would have to find agreement with one or another department head to finalize the recruitment. One advantage of this arrangement was that it assisted those departments that had little or no research activity to become more research-intensive. . . . Some department heads we were trying to recruit from outside didn't like our structure and would have preferred to have the control over all activities of departmental members. My advice to them was that the U of C was not the right place for them. Here you have to lead or manage by persuasion, convince people that what you want to do is the right thing.¹²

But Watanabe also recognized that department heads needed to work together to promote excellence within the faculty:

I think it's important to have a culture of departments helping each other, versus a culture of competitiveness. So when I became the dean I started taking the department heads on six-monthly retreats where the department heads could interact with each other and become aware of

some of the issues other department heads are facing, because in order to be a strong faculty we need to help each other—we need to understand whether psychiatry needs something or pathology needs something and why we should be supportive and that, I think, worked really well. Dr. Clarence Guenter said to me after one of the meetings in Banff, “You know, this is a very good thing to do because after our meeting it is very hard for me to go back and say that we need this in medicine when pediatrics needs it more. You can't be competitors—we have to work together to build something.”¹³

As noted in the previous chapter, Watanabe inherited outstanding issues that needed to be addressed and was presented with new opportunities when he assumed the acting deanship. The most important of these was the new AHFMR, which had formed in 1980. Both McLeod and Watanabe were involved early in the foundation's history, as the latter explained:

When Premier Peter Lougheed was interested in a legacy project, he consulted Lionel, who suggested the concept of medical research, which eventually became the Alberta Heritage Foundation for Medical Research. Lionel always was generous,

giving credit to Tim Cameron, who was dean of medicine at U of A, but I think Lionel was the person who sold the idea. At that time, I was associate dean of undergraduate medical education, Warren Veale was associate dean of research, and Bill Tatton was the chair of the research committee. Lionel, Warren, and I met during the initial stages to develop the concept and [we] produced a position paper documenting the proposal for a Heritage Foundation. Bill Tatton was involved. . . . In 1980 Warren Veale was finishing his term as associate dean of research and I was asked to take on the role starting 1 July 1980. The Heritage Foundation had been formed, a board was appointed, and Jack Bradley named as executive director. At the end of June, Lionel invited me to have lunch with Jack Bradley. Bradley wanted the AHFMR to start as soon as possible and decided to create an ad hoc scientific advisory committee to advise the board, and he asked if I would chair the ad hoc committee beginning July 7th. Although it was an incredibly short notice, I felt that it was such an important development I should do whatever it takes to make it successful. Members of the advisory committee were chosen, and we felt it was important to have an immediate

competition for junior awards, studentships, and postdoctoral fellowships, to start in September of 1980. It was an almost impossible task, but we did meet the deadline.¹⁴

At the time of the turnover, the educational mandate appeared to be in very good shape. The Royal College of Physicians and Surgeons of Canada report, received in March of 1981, had indicated that, with the exception of general pathology, all residency programs were approved for the maximum of five years. The U of C's first-year internship program had just been inspected by the National Joint Committee on Physician Pre-Registration Programmes to ensure programs are of high quality, uniform, and portable across Canada. The Department of Hospitals and Medical Care had just approved twenty-five new residency positions for the U of C, and there was now a total of 244 funded residency positions.¹⁵

Chronology of the Watanabe Years

YEAR AS ACTING DEAN, 1981–2

Watanabe was appointed acting dean of medicine by President Norman Wagner (1935–2004) starting 1 July 1981. He almost immediately initiated discussions with Alvin Libin, the chair of the board of the Foothills Hospital, to look for common ground and areas for future co-operation. These discussions led to new visions around

excellence, establishing an academic Health Sciences Centre, and the Heritage Medical Research Building; Watanabe describes these interactions as follows:

The relationship between the Foothills and the medical school had been complex, with the Foothills Hospital behaving as the dominant partner. My vision was that we needed to be equal partners, so I invited Al Libin for dinner to discuss our common vision, our future relationship and directions. His vision for the Foothills Hospital was to be the best in the world, which matched my hopes for our future. We agreed about becoming an academic health sciences centre that is an equal partnership between the two organizations, where both institutions are fully immersed in research, education, and clinical services. We agreed to visit some US academic health sciences centres to learn how they succeed.

In order to succeed we needed new space on the site with three components that did not exist at the time—a wing for clinical research patient encounters, space for laboratories focused on clinical research, and space for advanced laboratory and diagnostic facilities. We agreed

that a building jointly owned would be ideal.¹⁶

This precipitated discussions with both Premier Lougheed and the AHFMR. Watanabe was so excited about the prospects of this new building that it influenced his decision to stay on as dean after his acting year. As could easily be predicted, Watanabe continued to have important interactions with the AHFMR:

Heritage was a very big part of my deanship. Even after Lionel [McLeod] became president of the AHFMR, he asked me to continue as chair of the ad hoc advisory committee, so we were the group that created the AHFMR scholarships, AHFMR medical scientists and AHFRM establishment grant terms of reference and ran their early competitions. At the faculty level it was all about raising awareness of Heritage competitions and recruiting to these opportunities. We needed to take full advantage of AHFMR opportunities—it was the only way for the faculty to grow.¹⁷

The Division of Educational Planning and Assessment (DEPA) was henceforth reorganized into the Office of Medical Education, which in turn became part of the Dean's Office. It was one of two divisions that did not become departments.¹⁸ Dean

Watanabe considered DEPA a disappointment for the following reasons:

Dr. Cochrane had created a Division of Educational Planning and Assessment but it failed to live up to its high hopes and expectations. It became a service arm, interested only in evaluation. It did very little, if any, research, which was an expectation in the original faculty plans—research was expected to guide the evolution and improvements in the curriculum. . . . Another shortcoming of DEPA was that, unlike McMaster, they did not want to or were afraid to play on the national or international stage. The result was that Calgary missed an opportunity to be viewed as an innovator in medical education.¹⁹

There were several notable donations later in the year. One of \$250,000 from the Monroe-Litton Corporation, which was matched by the provincial government, permitted the purchase of forty-six microcomputers for educational purposes, while the Nat Christie Foundation of Calgary agreed to donate \$100,000 per annum for three years to cover the tuition and fees of selected undergraduate students. Other important occurrences included the launch of a newly approved residency program in community medicine and the appointment of Dr. Church as associate dean (research) to replace Dr. Watanabe.²⁰ Seventy-two students were

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Heritage Medical Research Building

The Faculty of Medicine's second building opened its doors on 17 November 1987. It had several different names while it was being planned. The original concept for the building was conceived by Mo Watanabe and Foothills Hospital Board chair Al Libin when they met early in Watanabe's year as acting dean in 1981. They agreed that their two institutions should develop an academic health sciences centre focused on research, teaching, and clinical services, and that this should be an equal partnership. They further agreed that they needed a joint building to make this happen, and they hired an architect to develop the plan. Next, they approached Premier Peter Lougheed, who approved of the concept in principle but told them to come back when government oil revenues had recovered. At about the same time, the AHFMR Board became aware of these discussions and asked Dr. Watanabe to attend their next meeting and make a presentation on clinical research, as opposed to basic biomedical research, which they were accustomed to funding. Dr. Watanabe expected that his presentation was for information only, since the AHFMR legislation did not include

construction of new buildings. To Watanabe's and Libin's surprise, the board proposed \$50 million in support of one-third of the clinical research building, but at the next meeting lowered this to \$32 million so that they could offer U of A the same amount. Watanabe and Libin were left to find the remainder of the necessary funding.¹

Although oil revenues had not recovered, they identified a new partner, the Tom Baker Cancer Centre (TBCC), and the building was to be called the Clinical Specialties Building; this would provide 250,000 net square feet of space and cost \$120 million. However, this is not what happened. By 1983, it was decided that the building would be developed solely by the University of Calgary, that the AHFMR would provide \$32 million, and that it would be called the Clinical Research Building. These changes were due to Premier Lougheed's decision not to fund the building from the Heritage Savings Trust Fund. Lougheed, instead suggested the development of a 50,000-net-square-foot building as a first phase that could be expanded when government revenues from non-renewable resources increased. It was further recognized that the boards of the Foothills Hospital and the TBCC could join in later if they could contribute financially to the project. Therefore, the board of the AHFMR was approached for its approval so that functional planning could begin. Early in 1984, the board approved the development of a clinical research building of 50,000 net square feet that would be finished internally in stages as new research programs proposed to the AHFMR were approved.² By the end of 1984, more details were available.

The building would consist of a basement and five floors; two of those floors would be shelled in only and one of these might be purchased by the Alberta Cancer Board. Construction was to begin in December 1985 and was to be completed in 1987.³

Ex-premier Peter Lougheed spoke at the opening ceremonies of the new Heritage Medical Research Building on 17 November 1987. He described the facility as a "contribution, not just selfishly to ourselves, but to humanity. . . . It's going to be a place where brains and imagination, spirit, motivation, co-operation and teamwork are all going to be part of the decades ahead."⁴ An article entitled "Lougheed Opens Research Building" duly followed in the *Calgary Herald* on November 18. It described "the facility at the edge of the Foothills Hospital site, [which] provides nearly 21,000 square meters of floor space on five floors for 40 new medical research scientists. Each scientist, in turn, will create at least five spin-off jobs, including research training opportunities for young people." The *Herald* also noted that a "sister building [was] due to be opened in Edmonton next month."⁵ This was clearly seen as an answer to both deferred space needs and the expansion of the faculty's research enterprise. But it would require additional planning, and so several months before the opening, an Advisory Committee on Research Development was established to advise the Dean's Office on new research groups, primarily those to be located in the new Heritage Medical Building, but also in the Health Sciences Centre. In his interview for this book, Dr. Watanabe described his role in these

developments as follows: “I had a lot to do with getting the building built and keeping control of it all the way through to the end, but once it was built I asked Bob Church, who was the associate dean (research), to fill it with people and the programs, although we had programs suggested for the building, which we had to do in order to get approval for the building.”⁶

accepted into the program in 1981 (the class of ’84)—the same number that had entered the class of ’83 the year before.

Early in 1982, it was announced that the U of C must find money to make up a \$1.5 million deficit and that, as a result, the Faculty of Medicine expected to cut the equivalent of two full-time positions and make cuts in support staff. The faculty’s operating budget, however, was expected to increase by just 12 per cent, which was barely enough to keep up with inflation. Watanabe reported that alternative sources of funding (e.g., from the Department of Hospitals and Medical Care, along with various endowments) needed to be found.²¹ There was, however, some good news during this period—namely, the establishment of the Julia McFarlane Chair in Diabetes Research, which, as noted in the previous chapter, was based upon a privately donated endowment of \$1.5 million. Also, early in 1982, a joint U of C–Institute of Medicine postgraduate training program in general medicine for Nepalese doctors was approved. Under the program, Nepalese doctors would receive one year of training in Calgary teaching hospitals and six months in a rural-practice setting.²²

Drs. McLeod and Cochrane returned to Calgary to give the keynote presentations at the faculty’s tenth-anniversary conference on 22 March 1982. Dr. McLeod noted “the delight I experience in visiting the medical school. It goes very well and remains one of the more exciting groups of people with which I find I can associate myself. Perhaps it is the youth, but I suspect it is more the ability and imagination of its staff that remains magnetic.”²³

In his presentation, Dr. McLeod discussed the potential impact of the AHFMR on medical education. He emphasized that recruitment must be done according to a plan. The challenge is to direct funds to the right program, not just to areas of either strength or weakness. Teaching experience must be addressed when recruiting researchers, if one is going to create a scholarly clinical service that is epidemiologically based. As a prod he added, "If we don't do well, we will roll over and die."²⁴

John Baumber, discussing the faculty's future, pointed out that U of C graduates were returning to the faculty and that this was a sign of maturity. Dr. Baumber also emphasized that students must focus on problem-solving through hypothetical-deductive reasoning instead of just for examination preparation, something that will require practice and integration into the curriculum. Somewhat presciently, he added: "Students will become far more computer literate than most faculty. Computers will be used for evaluations and assessments, aids to memory in CME, and accelerating bench to bedside learning from target to research. Flexibility will remain a key note in a close faculty-student relationship."²⁵

WATANABE BEGINS HIS FIRST TERM AS DEAN

Acting Dean Watanabe announced to the FC on 26 May that he was now dean with the following speech:

As most of you know, the President's Office has officially announced my appointment as dean of this faculty for the next five years. Many of you have been kind enough to offer your congratulations and good wishes and I do want to thank you all for your encouragement and support. I certainly look forward to serving the faculty and to working closely with all of you to meet the challenges of the future. We are, I believe, sitting on a pivotal period in the life of this medical school. On the one hand, we are faced with budgetary restrictions that threaten our future growth and development. On the other hand, opportunities for growth are being made available through the Alberta Heritage Foundation for Medical Research, through donations from the private sector and through the Department of Hospitals and Medical Care. With careful and intelligent thought and consideration, I think it is possible for us to plan a continued and balanced growth that need not jeopardize any of the key elements of our current faculty endeavours.

As most of you know, on June 4th we will be graduating our tenth class. . . . I think it is a reasonable time to reflect on the accomplishments of this medical school during its first ten

years. I'm afraid that we have sometimes had a rather negative view of our accomplishments, but I'd like to say that I think the school has done extremely well in a very short time. We are producing medical graduates who are considered by program directors across Canada to be knowledgeable, compassionate, and generally very good in clinical skills. Our research development has been impressive, and I think we have attracted some very good faculty here.

From this base, I think we have an optimistic future, an opportunity to develop into a first-class medical school. I would ask that we not dwell too much on the problems of the past but look forward and tackle our problems in a positive manner. I think that our greatest resource is our faculty and I believe we have the capacity and resource for greatness.

While we're dwelling on our past—let me publicly indicate my thanks to the many faculty who have given of their time and effort to assist me during this acting year. I have enjoyed the year immensely and as I said at the beginning, I look forward to working with all of you for a few more years.²⁶

Immediately after assuming his deanship, Dr. Watanabe was forced to deal with a scandal. Copies of the end-of-course certifying evaluations had been found circulating through the student body; the confidential item bank and certifying evaluations would now need to be replaced. An investigation, carried out throughout the fall and concluded before the end of the year, determined that thirteen students from the class of '84 had some involvement, though the Student Promotions Committee determined that twelve of these students had not engaged in unethical behaviour and/or intellectual dishonesty. The Office of Medical Education's procedures for handling examination documents were immediately improved. And yet, to make things worse, it was announced at the same FC meeting that some investigators and faculty had been accused of stealing animals from the vivarium.²⁷

In the wake of these events, Dean Watanabe's next speech to the FC, delivered via an extended diagnostic metaphor, dealt with both good news and bad news:

As we start our fall session I would say that the patient—the faculty, that is—appears on inspection to be healthy and growing. On more detailed auscultation, however, I am not sure whether there aren't some signs and symptoms of an early disorder.

First, the healthy exterior. Economic health is becoming to me a relative term. In the midst of an eco-

conomic recession and budget cutbacks, we are in the fortunate position of actively recruiting to our faculty and in a few moments, I will introduce our new faculty members. Since our last faculty meeting, we have twenty-seven new full-time and four new major part-time appointments, with several more expected to arrive in the next few months. Roughly a third of the new faculty members are funded by AHFMR and MRC support; a third from other agencies and a third from U of C funds resulting from previous vacancies and resignations. We have also had significant donations from the private sector—a Search Committee is actively searching for a member to occupy the Julia McFarlane Chair in Diabetes Research, funded by a \$1.5-million donation. We have also received a \$1 million commitment from the Nat Christie Foundation for the development of a Reproductive Biology Unit and a Search Committee has been established for the Clara Christie Professorship in Obstetrics and Gynaecology. In the past few days we have been notified of a \$3-million grant from the Canadian Foundation for Ileitis and Colitis to set up a Digestive Diseases Research Unit. Also, as you walk through the building, you will notice the active renovation

and constructive program funded largely through the Alberta Heritage Foundation for Medical Research. We have also recently finalized an agreement with the Department of Hospitals and Medical Care, which creates a significant number of positions for the clinical departments. We are, therefore, doing all right but let us not kid ourselves that this is going to continue. Universities across Canada are in difficulty and we, too, are in for a tight budget situation. It will take our collective wisdom to stretch our dollars and to reallocate our resources where required.

Now the unhealthy news. We, I think, have prided ourselves in recent years on our achievements in the undergraduate education program. We have insisted that we are here to teach our students knowledge, skills, and attitudes required to make a good physician. The results of the MCC exams suggest that our students are acquiring the necessary knowledge and skills. Recent events in our faculty suggest that we have not been uniformly successful in teaching our students the proper attitudes and ethics required for medical practice—I am talking of intellectual dishonesty. While it would be simple to write this incident off as a sign of the times, I

think it would be important for the faculty to contemplate whether we have provided the appropriate environment and atmosphere that allows moral integrity to flourish. I do not wish to lay blame nor start a major debate. I think the time has come for all of us to contemplate our moral responsibilities.²⁸

In the late fall of 1982, the *Calgary Herald* published an article entitled “Hospital chief raps provincial funding”; it described a growing rift between the Alberta Hospital Association and the Ministry of Hospitals and Medical Care. As Alberta Hospital Association president Bud Pals told the paper: “The province is attempting to control its expenditures by deliberately underfunding the hospitals, and that puts the (hospital) boards, who are supposed to provide service, in a very frustrating position.” The story further explains that Premier Lougheed’s minister of hospitals and medical care, Dave Russell, had indicated that the ministry would not cover hospital operating deficits at the end of the fiscal year.²⁹

Other important occurrences in 1982 included the Department of Family Practice being renamed the Department of Family Medicine; the approval of two new research groups (immunological sciences and musculoskeletal); and a restructuring of the U of C Medical Clinic, in which the Ambulatory Care Centre Committee of the FC was disbanded and replaced by a management committee composed of representatives of clinical

departments who were elected by “practising” members.³⁰ Seventy-two students were again accepted in the class of ’85.

The New Integrative Course Begins in 1983

On 15 March 1983 the new integrative course was implemented; this represented a major change to the curriculum. Henry Mandin had been asked to chair the Integrative Course Committee, which planned both its content and implementation. The course was four weeks long with sixteen hours of teaching per week.³¹ In May and June of 1983, the Office of the Associate Dean (Clinical Services) reviewed the clinical facilities of the U of C Medical Centre (UCMC) and a UCMC Management Committee was formed, which reviewed allocated space, affiliation agreements with Calgary hospitals, and UCMC billing processes.³² In June 1983, a four-day CME conference entitled Looking to the Future was held to celebrate the tenth anniversary of the first convocation of U of C medical students. Several students from the first class gave presentations. Honorary U of C LLDs were also given to Dr. Cochrane and Mervyn Graves, the retired chair of the ACH Board.³³

The U of C Faculty of Medicine took a 2 per cent budget cut for 1983–4, most of which came from the departmental operating budget. Later in the year the university announced that it expected to be short \$4 million for the 1984–5 fiscal year, and that the Faculty of Medicine would be

expected to cut 5 per cent in salaries (or \$400,000). However, the projected budget reduction was soon decreased to 1 per cent, which could be managed without cutting positions.³⁴

At the December FC meeting, Dean Watanabe provided an update on plans for the new research building. Other important occurrences that year included Dr. Arthur David Dickson's (1925–2018) appointment as chair of the Internal Assessment Steering Committee for the upcoming accreditation site visit in the spring of 1985; approval of the positions of assistant dean (medical bioethics) and assistant dean (continuing medical education); W. A. Cochrane's receipt of an honorary degree at convocation, at which he delivered the convocation address; and Calgary receiving twenty of twenty-five provincially funded new faculty positions for Alberta medical schools.³⁵ The incoming medical class remained at seventy-two students, while the quite familiar and congenial class atmosphere had not changed very much from the early beginnings, as one of the medical students from the inaugural cohort has recalled:

We were taught in small group sessions on the twelfth floor of the Foot-hills Medical Centre. "Our floor" was stuffed with so many things: there were tables with textbooks on them, a corner that was used for chemical demonstrations, plastic torsos and models in another one, and opposite of the secretary's area there was the "anatomy department." . . . And,

above all, the view from the windows on the hospital building's top floor was just spectacular!³⁶

PHYSICIAN WORKFORCE PROJECTIONS AND PLANNING

In the second half of 1983, a report on physician workforce "needs" suggested that the Western Canadian medical schools should cut their combined class sizes by 20 per cent. The administrations of these schools, believing that the study was flawed, countered with their own estimates. In early 1984, Dean Watanabe reported to the Government of Alberta that on a per capita basis only Newfoundland, New Brunswick, Prince Edward Island, and the Northwest Territories had fewer physicians than Alberta. Furthermore, if considering family doctors, only New Brunswick and the Northwest Territories had fewer. He also noted that new registrations in Alberta had decreased over the past three years, and that attrition had increased over the last year. Finally, if available first-year positions were compared to the population aged twenty to twenty-four, only British Columbia and Saskatchewan had fewer medical school positions than Alberta. The Alberta government responded by agreeing to provide more residency positions.³⁷ Dean Watanabe subsequently decided to develop a greater depth of expertise in this area. He soon became a nationally recognized expert on physician workforce planning and would be called upon to use this expertise again and again.

On April 1, the Canada Health Act was passed into law. It outlined the criteria provincial health-care systems must meet to receive federal transfer funding and precluded extra-billing by specialists. Immediately, Premier Lougheed “defended his government’s stand on extra billing and hospital user fees in the legislature and said financial penalties assessed under the proposed Canada Health Act would be offset by keeping a tighter rein on costs.” As the premier pointed out at the time, “if you don’t have an opportunity for specialists to do some extra billing, such as plastic surgeons, we risk very significantly losing some of our key specialists to south of the border.”³⁸ It was believed that the Province could face penalties of \$14 to \$20 million per year, but the government countered that these penalties would be offset by user fees, which would also keep everyone aware of the need for controlling costs. Eventually, the Province backed off from these defiant plans. As Dean Watanabe later reported, he believed that the Canada Health Act had no real effect on the U of C faculty.³⁹

1984 also saw three important changes in the realm of postgraduate medical education (PGME). First, tripartite contracts for residents were implemented for the first time. Henceforth, residents signed contracts with both the university and the hospital (previously, it was only a contract with the hospital). Second, a pre-specialty rotating internship designed for those wishing to complete internships before entering a specific specialty was implemented. It consisted of eight-week rotations through obstetrics and gynaecology, pediatrics,

surgery, and medicine. Finally, a program with the Saudi Arabian Education Mission in Canada was approved.⁴⁰

Nationally, Canada saw two changes of prime minister in 1984. Pierre Trudeau (1919–2000) retired in February, and the Liberal Party selected John Turner as its leader. After he was sworn in as prime minister, Turner called an election and lost. On 17 September 1984, the Honourable Brian Mulroney (b. 1939), of the Progressive Conservative Party, became the eighteenth prime minister of Canada. Provincial health ministers across the country immediately wrote a letter to Mulroney to complain about outgoing Liberal health minister Monique Bégin (b. 1936) allowing federal contributions to provincial health care to drop to roughly 50 per cent for most provinces, and as little as one-third for some.⁴¹ No resolution was forthcoming, and provincial health systems, including Alberta’s, continued to be underfunded (from the perspective of the provinces) by the federal government. With the price of oil continuing to fall, this was not good news for Alberta’s two medical schools.

At the December 12 FC meeting there was considerable discussion of the draft self-assessment document for the upcoming undergraduate medical education (UME) accreditation. It was noted that there were “some mistakes and errors in fact as well as in wording, and [that the document] has to be revised.”⁴² Many felt that “it generally has a negative tone, conveying the impression that the school is facing serious difficulties.”⁴³ Others suggested that “it does not reflect the research

component of the school. . . . It emphasizes the negative consequences of increased research activities in the Faculty.³⁴⁴ It was agreed that two members of the FC would help the Self-Assessment Committee to edit the report, and that there would be a special meeting of the FC in the new year to “obtain views of Council on the revised report.”³⁴⁵

Other important occurrences included a new exchange program involving scientists at Alberta medical schools and Sapporo Medical College in Japan; the president of the Calgary Medical Students Association being made a voting member of the FC; and the CME program extending its teleconferencing to forty-two hospitals in Southern Alberta.⁴⁶ Ominously for the faculty’s research enterprise, the federal government reduced the MRC funding by \$27 million from the levels of the former government. To make things worse, the university budget for 1985–6 projected a deficit of \$7.3 million to be made up for in cuts from the operating budget.⁴⁷ Seventy-four students were accepted into the class of ’87.

THE 1985 ACCREDITATION

On February 13, a special meeting of the FC was held to discuss the self-assessment report. A. D. Dickson, chair of the Self-Assessment Committee, was asked to comment on the revised report and to lead the discussions. Drs. Clarence Guenter and Grant Gall had already met with the Self-Assessment Committee to suggest changes to the document—some of which were adopted. The

document was reviewed in detail, with many motions approved and a few defeated. Finally, a motion was passed commending the committee “for its thorough revision of its original report and for taking into account the criticisms voiced at the last Faculty Council meeting.”³⁴⁸

Later in February, accreditation site visits for the UME and PGME took place; both preliminary reports were highly positive. For its part, the UME recommended full accreditation for seven years (the maximum allowed in Canada). Of the twenty-three Royal College residency training programs that had been reviewed, only rheumatology and neurosurgery received provisional approval; the rest received full approval.

Both final written reports were received later that year. While the UME report was overall very positive, it pointed out the lack of academic growth in the pathology, radiology, surgery, and anesthesiology departments. The FC also noted that McMaster had been accredited for seven years and that “this indicated that three-year programs have been accepted.” The Royal College’s final written report accredited twenty-one of twenty-three residency programs for the maximum of six years.⁴⁹

The report summary from the ad hoc survey team for the Committee on the Accreditation of Canadian Medical Schools and the LCME stated the following:

The Faculty of Medicine of the University of Calgary has over a short period of some fifteen years, developed

a strong and progressive programme leading to the M.D. degree. Although it is complex in its organization structure and execution, the programme is functioning effectively and affords an unusual opportunity for a wide segment of the faculty to participate in its management. Great credit for the over-all success of the operation is due to Dean Watanabe, who is widely admired and highly respected. He has earned faculty trust and support through wise leadership, administrative skill, and obvious commitment towards the goal of excellence in teaching and research. He has surrounded himself with a commendable team with similar attributes and aspirations. The team found much to commend and little to criticise. . . . Notwithstanding periodic debate, the three calendar year curriculum appears to be working well, and is not placing undue stress on students. In short, this school is well advanced towards fulfilling its promise of becoming a centre of excellence in medicine.⁵⁰

The LCME's 1985 survey also had complementary things to say about the curriculum, noting that "another major achievement of the Calgary curriculum is the result and interaction of basic scientists with clinical scientists and clinicians.

Everyone knows everyone and has some knowledge of their interests and fields of endeavor. This is an item of major importance not commonly found in medical schools."⁵¹ When questioned about this, Dr. Watanabe would later explain that he agreed wholeheartedly with the LCME's observations:

That culture is what enticed me to join the U of C. Credit goes to Bill Cochrane, the first dean. The idea of a critical mass, whether in research or education, is incredibly important if you want the best performance from your faculty members. Critical mass is difficult to create in a newer, smaller organization, so one needs innovative approaches. Bill Cochrane got it right—a brilliant move, which other institutions tried to emulate later.⁵²

The report identified five areas requiring attention. These centred on the need to (1) complete research on the effectiveness of the novel curriculum (i.e., performance of graduates) and publish the findings; (2) be aware that some teaching faculty and students believe that the faculty was becoming too research intensive, though the survey team noted that it sees no inherent conflict in these activities; (3) make certain that department heads were better aware of all aspects of the curriculum; (4) improve the academic culture within the pathology department, which the survey team described as

disappointing; and (5) create a stronger academic department of surgery.⁵³

The medical school had started out with an educational focus but was becoming more and more research oriented, especially with the advent of AHFMR-funded scientists. Some long-standing “teaching track” faculty members expressed concern that the balance was tipping too far toward research and that the quality of teaching would suffer. This was one of the notions that had been articulated in the earlier draft of the self-assessment document. When Dr. Watanabe was asked about this, he gave the following reply:

When new medical schools are created, by necessity, the undergraduate education program has to take priority. As the student moves into the clinical years the clinical learning sites and clinical teachers need to be on site. The development of a research program, although it starts with recruitment of basic scientists, shifts into high gear only after the first two pieces are in place. To be a recognized medical school, there should be significant research activities, not only in basic biomedical and clinical research, but in other aspects of inquiry such as health services research, psychosocial and mental health, public and occupational health, health policy, international health—the full spectrum of health research.

It was fortunate that the AHFMR came along when the medical school was moving toward the third phase of growth, namely, shifting research endeavours into high gear. My vision from the outset was to develop national- and international-calibre research units and programs.

Unfortunately, there are faculty members who do not transition well in this scenario. They respond to the overwhelming educational needs in the early years by sacrificing their research and find it difficult or impossible to resurrect their research endeavours when the educational involvement decreases. It is not necessarily the shift in emphasis toward research that causes faculty members to feel threatened. Even if research grows, the educational activities remain core functions of the medical school and still continue to grow so “teaching track” faculty members still have a significant role to play in the faculty.

In the early years of the medical school, academic advancement was largely on the basis of academic productivity, namely, publications and research funding. During my time, I changed the emphasis so that educational involvement was a consideration in merit increments and

promotions. Faculty administration does need to find ways to assist faculty members in transition in finding a niche, a responsibility, a role, or a job that maintains their self-esteem, and allows them to contribute in meaningful ways. It can be a challenge.⁵⁴

The physician workforce also remained an important issue in 1985. A study conducted for the federal and provincial health ministers projected a 10 to 17 per cent excess supply of physicians by the year 2000. The Alberta College of Physicians and Surgeons along with the AMA recommended a 10 per cent cut in enrolment at each school.⁵⁵

Other important occurrences at this time included the federal government appointing Dr. W. A. Cochrane to the Canadian Biotechnology Advisory Committee; the faculty establishing the “Twenty Dollar Club” (a fund initiated by the Calgary Medical Students Association to support social outings between faculty and students); the replacement of retiring secretary Dr. Dickson by Dr. Lannigan; and a proposal for an intercalated year in laboratory medicine, which would allow a student to opt for one year of training between the second year and the clerkship, was approved. This year could be credited as one year toward a residency in laboratory medicine. Similar models exist in the United States and at one other Canadian medical school.⁵⁶ Finally, seventy-four students were accepted in the class of ’88.

On June 14, the *Calgary Herald* published an article under the headline “U of C refuses to trim

medical school.” It stated that the U of C Faculty of Medicine “will again admit 72 first-year medical students in September, the same quota as in the past three years.”⁵⁷ The explanation offered to the press was from Dr. John Baumber, associate dean of undergraduate medical education: “We are not taking our instructions from the government, but rather from the university Board of Governors. And they haven’t instructed us to cut back. Besides, we are not entirely convinced there will be an over-supply of doctors in the western provinces. . . . Many of our senior students have told me they don’t intend to work 60 hours a week like many doctors do nowadays.”⁵⁸

The number of full-time faculty had increased from 142 in 1980 to 241 in 1985. Space was therefore becoming an issue. The faculty compensated by converting library and conference rooms into laboratories that would be restored when the new AHFMR building was constructed.⁵⁹

BUDGET WOES

In December of 1985, the U of C Faculty of Medicine had been told that a 4 per cent cut to its 1986–7 budget had been recommended. A total of \$470,000 in savings needed to be found. Dean Watanabe subsequently told the FC “that if the cuts were taken in clinical faculty positions, a \$470,000 cut would translate to a \$940,000 cut, since the cost-shared portions of the salaries would be lost to the Faculty as well. He suggested that the Faculty of Medicine should agree to forego any salary adjustments or merit increments next year, and

that he should send a letter to the Board of Governors indicating this option.”⁶⁰ Such a motion was carried at the FC meeting on 11 December 1985. The U of C BOG reported back in early 1986 that it would not consider the wage freeze as salary increases had already been negotiated.⁶¹

In May stories appeared in the *Calgary Herald* about a statement allegedly made by the minister of hospitals and medical care that the Calgary medical school might be closed. Dean Watanabe immediately contacted Dr. Alex McPherson in the Department of Health of the Province of Alberta, who stated that the minister had been misquoted. Dr. Watanabe received further assurances that there was no intention of closing the medical school in Calgary, and he passed this message on to his worried faculty.⁶² At about the same time, David Russell’s term as the responsible minister ended when Marvin Moore (b. 1938) replaced him in a cabinet shuffle. David Russell became the minister of advanced education, where he remained part of the discussions about the future of medical education in Alberta.

On a positive note, the provincial Department of Advanced Education announced that \$80 million had been set aside to match donations for endowments from wealthy donors, with the details on how to apply for these funds to be announced soon. A few months later, the Dean’s Office was told that the matching funds announcement may be delayed “in view of a tight budget” and that “more donations have been accumulated than the projected government allocation for matching this year.”⁶³

At the FC meeting on October 1, the dean stated: “Discussions are being held informally about an optimal location for the pediatric hospital. There have been no formal discussions, and no decisions have been made.”⁶⁴ He also announced that the U of C Faculty of Medicine and the Foothills Hospital had reached a formal agreement with the Capital Institute of Medicine and Xuan-Wu Hospital in Beijing, to include an exchange of nursing, hospital administration, and other allied health professionals.⁶⁵

Other important occurrences in 1985 included the Royal College’s approval of a residency in medical oncology, the establishment of the drug testing laboratory at the Foothills Hospital in anticipation of the 1988 Olympics, which would enable monitoring of the use of banned drugs by athletes, and the FC’s letter to Deputy Prime Minister Don Mazankowski (b. 1935) expressing concerns about MRC budget cuts. The Health Sciences Centre temporarily became a smoke-free building in October, though measures to make that permanent could not be implemented until the following year, as Edward Bryan Tinker (1932–2009), the U of C’s vice-president of finance and services, wrote Dr. Watanabe on 1 April 1987 asking the faculty to delay implementation of its new non-smoking policy until a campus-wide survey had been completed in 1987.⁶⁶

Meanwhile, the faculty was shocked to hear that California licensing authorities had decided that four years of undergraduate medical training would be required to practise in the state, which meant that U of C graduates would no longer be

able to acquire a licence to practise in California. The faculty also learned that an ACMC survey found that the U of C had the largest percentage of students choosing a career in pure research.⁶⁷

In 1986, seventy-three students were accepted into the class of '89. The price of oil, which had been slowly decreasing during the 1980s, dropped another 50 per cent.

ALBERTA DOCTORS AND THE HEALTH-CARE SYSTEM AT WAR

The battle between the Department of Hospitals and Medical Care, on the one hand, and Alberta doctors on the other, continued to escalate throughout 1987. On February 13 of that year, a *Calgary Herald* article titled “Limit on doctors a step closer” stated that Minister Moore was planning to limit the number of doctors practising in Alberta since doctors’ fees had escaped unscathed. He was also considering de-insuring some services and planned to cut the projected doctor fees for 1987–8 by \$40 million. None of this sat well with the doctors.⁶⁸ In April, cancer specialists fought back through the press. For example, an article entitled “Clinics may drop cancer check-ups” appeared in the *Calgary Herald*. The province’s oncologists indicated that provincial budget constraints may result in the offloading by the Tom Baker Cancer Centre in Calgary and the Cross Cancer Centre in Edmonton of cancer care follow-up to family doctors.⁶⁹

The medical workforce debate continued. As recorded in the dean’s report from the 13 May 1987 FC minutes:

The Dean outlined the events following Hon. Dave Russell’s statements suggesting that there may be duplication of and competition between programs of the two Alberta medical schools. The Dean had written an article published by the *Calgary Herald* which was sent to Mr. Russell and Mr. Moore. The Dean also spoke on the “Calgary Eyeopener” following Mr. Russell, and outlined evidence opposing the view that too many physicians for the future needs were being graduated in Alberta. The Dean reported that a representative of Advanced Education had come to see him before this exchange, requesting the impact of downsizing the undergraduate class in the medical school.⁷⁰

Dean Watanabe Begins his Second Term in a Time of Uncertainty

On 1 July 1987, Dean Watanabe began his second term. He would later describe this period as follows:

When I renewed my second term as dean I warned the president that it’s

going to be a very different term—I'm not going to be looking at it as a continuation of my first term—this term will bring a different kind of responsibility, a very different set of activities, and I need to sort of approach it like it is a new job, that's what gets you through your five years.⁷¹

Later that year, Dean Watanabe still believed that closing one of the two Alberta medical schools was not out of the realm of possibility:

During my second term as dean, the Alberta government considered closing one of the medical schools as a solution to the perceived oversupply of physicians. Such rhetoric does make one reflect on the optimal balance between education and research. Many assumed that ending the undergraduate program would mean the end of the medical school; I suggested that we look at all of our activities and the benefits that accrue to Calgary as a result of our presence—postgraduate clinical training, CME, MSc/PhD graduate studies, research, external research funding that creates jobs, cash flows into Calgary, recruitment of world class clinicians who bring special expertise in health care, etc. I published an opinion piece in the *Calgary Herald* to inform the general

public about what the medical school contributes to Calgary. Internally I suggested that the medical school review its options. One option was to become a medical school at the graduate level, focusing on PhD and postdoctoral students and postgraduate resident training in the clinical arena, continuing medical education for the practising community and maintenance of competence programs, coupled with intensive research activities in all spheres of medicine and health, including health policy, health management programs, etc.

I also called the Hon. Marvin Moore, Alberta minister of health, to ask for a meeting to discuss his proposal to close one medical school in Alberta, which I suspected would not be at the U of A. I said that the government's concern was the escalating health-care costs, which some attributed to the increasing number of doctors, which I felt was erroneous, and I felt that cutting the number of medical students and doctors would not solve his problem and would create major problems in the future. I wanted to help him find the right solution. He agreed to a meeting and insisted on meeting me at the medical school to get my thoughts. I suggested that he should resurrect the utiliza-

tion committee that had been created when David Russell was the minister of health. The committee had made some important observations about unnecessary utilization of medical services, and I felt that an action plan should be developed to decrease utilization. I offered to help, meaning that some of our faculty members could provide useful insights. He called within a week and asked me to sit on the committee, and a week later the deputy minister phoned to say that Minister Moore wanted me to chair the committee. Having offered to help, I had no choice but to agree to serve. He announced publicly that the proposed closure of a medical school would be on hold pending receipt of the Watanabe report.⁷²

This meeting between Minister Moore and Dean Watanabe resulted in the formation of the provincial Advisory Committee on Utilization of Medical Services, which was charged with monitoring and rationalization of health-care costs.⁷³ Dean Watanabe later described his time chairing this committee as a “fascinating exercise”:

Alberta Health had a huge database which stored all health-care encounters, but they had little or no analytical capability to mine this extensive information database. So, I took the

raw numbers they generated for me and I researched the data. I also visited many communities to meet with physicians to discuss utilization issues and how to decrease utilization without jeopardizing the quality of health care. For the first time we were able to demonstrate that health-care costs and utilization could be flat-lined even though the number of physicians continued to increase.

Marvin Moore also toyed with the idea that other provinces were planning . . . to send the new graduates to rural areas. I advised him that it was not a good plan since more than 50 to 55 per cent of new graduates were women, and such an action could be viewed as discriminatory to women. He dropped the plan.⁷⁴

Meanwhile, on November 17, the much-anticipated Heritage Medical Research Building opened its doors. Peter Lougheed spoke at the opening ceremony.⁷⁵ The opening was an answer to both deferred space needs and the expansion of the faculty’s research enterprise (see sidebar 8).

In December, the faculty was asked to plan around a 6 to 7 per cent budget cut. Earlier in the year the provincial matching fund had met its obligations with all endowments made prior to March 31, but donations made after that date had not been dealt with. These included two new research chairs and two new professorships. It was

also announced that the U of C would receive \$4 million from the provincial matching fund and that \$750,000 of this would come to the faculty.⁷⁶

In 1987, sixty-eight students were accepted into the class of '90. The Admissions Committee also implemented a policy change and did away with the formal quota of a maximum of thirteen non-Albertan students per year, as it was noted that on occasion they had admitted more than the quota.

One final event spilled over well into the next year. In December of 1987, there were widespread public protests after Medicare cutbacks were implemented by Minister Moore, and Premier Don Getty (1933–2016) initiated a two-year-long Commission on the Future of Health Care. Alex McPherson was appointed the commission's executive director and Louis ("Lou") D. Hyndman (1935–2013), an Alberta legislator and future chancellor of the U of A, served as chair. The commission started meeting in 1988. Initially, some of the hearings were held in Calgary to facilitate input from residents, but later it was decided that all remaining sessions would be held in Edmonton. It was assumed that this would not disenfranchise Calgarians since all sessions were being videotaped, but Calgarians did not see it that way and many became upset.⁷⁷

10

XV Olympic Winter Games, 1988

In 1981 Calgary was selected as the host city for the 1988 Winter Olympics. A year later Dr. E. Bruce Challis, then head of the U of C Department of Family Medicine, was appointed chief medical officer for the Games. In early 1984 Dr. Geoffrey Haigh (athlete medical services), Dr. Greg Powell (general emergency medical services), Dr. Robert Baynton (medial laboratory services, which in addition to drug testing was responsible for gender verification and provision of general diagnostic services), and Scott Rowand (auxiliary medical services) joined Dr. Challis's leadership team as voluntary chairs for their assigned areas. Lane Casement was the overall manager.

Seven full-time staff supported the nearly 800 volunteers who provided medical services across 27 venues during the Games. Most participating countries also brought their own medical teams with them, with the Alberta College of Physicians and Surgeons granting temporary licences to their physician members. Local consultants agreed to be on call for athletes and other team members over the duration of the Games. If hospitalization was required, the Foothills Provincial General Hospital took care of athletes and team

members while the Calgary General Hospital was responsible for International Olympic Committee delegates, members of international sports federations, and other important visitors. The Holy Cross and Rockyview Hospitals would deal with media. The Canmore facility would serve the Nordic Centre. An accredited Medical Control Laboratory costing nearly \$2 million was established at the Foothills site for drug testing.¹

An unusual research project conducted in preparation for the Games dealt with the mascots Hidy and Howdy. The high school students wearing the costumes frequently became ill, with some even fainting. Treadmill testing at Foothills found that the temperature inside the suits increased rapidly to 34 degrees Celsius, while the inspired air became hypoxic and hypercapnic. This was solved by placing a small battery-powered fan in the headpiece, which pushed a stream of air across the face of the occupant and out through the mouth of the mask.²

On 25 January 1988 a province-wide illegal nurses strike began; this of course affected the city's hospitals. Threats that the striking nurses would refuse to provide services to visitors during the Olympics led to anxious moments.³ Fortunately a settlement was reached on February 12, the day before the Games opened.

During the Games there were 3,395 medical encounters (athletes accounted for 500, spectators 796, and 2,099 were with volunteers and staff).⁴ Tragically, a fatality took place. Dr. Joerg Oberhammer, a forty-seven-year-old orthopedic surgeon with the Austrian team, collided with another skier at Nakiska, was knocked into the

path of a snow-grooming machine, and died instantaneously. Another serious injury occurred on the same hill. A seventeen-year-old working as a photographer's assistant suffered a severe head injury, also while skiing, and required resuscitation.⁵ Long after the Games concluded he remained in a local hospital.⁶

The Medical Control Laboratory tested 428 urine samples (this total included 5 quality-control samples). On selected athletes, testing was done for five classes of banned drugs (i.e., stimulants, narcotics, anabolic steroids, β -blockers, diuretics), probenecid (which can be used as a masking agent), local anesthetics, corticosteroids, human choriogonadotropin (which stimulates the production of testosterone) in men, and cannabinoids. There were sixteen positive analyses and one athlete, a Polish hockey player, was suspended.⁷ His coach felt he was deliberately drugged, possibly for "political reasons."⁸

Typically, when the legacy of an Olympic Game is considered, the focus is on either the infrastructure built or the local economic impact. Less thought is given to the health and wellness effects. An obvious boon for the local medical community was the creation of the Medical Control Laboratory. The Games also played a key role in the transformation of the small Faculty of Physical Education into one of the most highly regarded kinesiology faculties in Canada and the establishment of the Sport Medicine Centre. While some young Canadians were inspired to pursue their Olympic dream by the Calgary event, there is no convincing evidence that being the site of an Olympic Games leads to a population-level increase in physical activity.⁹

1988 BEGINS WITH AN ILLEGAL NURSES' STRIKE AND THE CALGARY WINTER OLYMPICS

The year opened with an illegal nineteen-day nurses' strike at most provincial hospitals that greatly hampered the provision of health care. The underlying problems that precipitated the strike were not addressed or resolved. In June the Commission on the Future of Health Care released a controversial interim report suggesting a pilot study with hospitals contracting-out nursing work to private companies to avoid strikes and other union problems. This was not well-received by nurses, their union, or other health-care workers.⁷⁸ The 1988 Winter Olympics were held in Calgary from February 13 to 28. The event was preceded by major construction projects on the main campus of the U of C, such as the speed skating oval. The Faculty of Medicine had no official role in the games, but many faculty members participated. According to Dr. Watanabe, "Our head of family medicine was the medical director for the Olympics and he was a volunteer, I believe, not necessarily involved on behalf of the medical school. Similarly, a lot of faculty members were there as volunteers."⁷⁹ A summary of the medical services program for the 1988 Winter Olympics is available elsewhere.⁸⁰

DUPRÉ REPORT

In March, it was announced that cuts to the faculty's budget for the upcoming fiscal year would be a miniscule 0.4 per cent, and not the 6 to 7 per cent that had been expected. This change was a result

of the Dupré Report, which had been struck by the minister of advanced education in late 1987 to determine if there was any merit to the complaints that the U of C was underfunded relative to U of A. Stefan Dupré (1936–2012), chair of the committee, concluded that the funding disparity between the U of C and other Alberta universities, at \$1 million, was relatively minimal. It was the result of increased administrative costs to support research because of the unanticipated rapid development of research programs at U of C.⁸¹ Although the U of C expected the differential to be much higher than \$1 million, the influx of funding came at a good time. Three new associate deans were announced: Henry Mandin (education), Keith Brownell (graduate clinical and CME), and Eldon Shaffer (clinical affairs).⁸²

During this time, the Saudi Arabian PGME training program was withdrawn. However, current residents were able to complete their program. U of T, McMaster, and the University of Western Ontario also declined to renew their contracts for Saudi Arabian residents.⁸³ On September 8, Nancy Betkowski (b. 1948) replaced Marvin Moore as minister of health. On this development, Dr. Watanabe offered the following observations:

Before the Utilization Committee finished its term, the minister of health changed hands and Nancy Betkowski (now Macbeth) became the new minister. I asked for a meeting to bring her up to date on the committee's work and asked her how we

could help her, which I subsequently learned impressed her and I gained her trust. At that time the relationship between the minister, Alberta Health, and the Foothills Hospital was tense over issues of computers and hospital information systems, so at the request of the chair of the board of Foothills Hospital, I arranged a dinner meeting with him and the minister and later also assisted the deputy minister in interactions with the senior administration of Foothills Hospital, which eased the tension. This . . . improved the dynamics between the medical school and the Foothills Hospital.⁸⁴

Other important occurrences during this time included the GCEC decision to limit the number of international medical graduate residents to 10 per cent in its PGME programs (on account of concerns regarding the number of physicians in Canada); AHFMR funding of a Biomedical Technical Support Centre, which consisted of a machine shop and an electronics shop in the basement of the Health Sciences Centre; the decision to make a four-week clerkship rotation in family medicine mandatory; and increased enrolment in the Medical Sciences Graduate Program. This meant that the overall number of graduate students had increased to 173, up 30 from 1987 and the largest enrolment in the program to date.⁸⁵

Seventy-two students were accepted into the class of '91 in 1988. Only sixty-two graduates received their degrees that year.⁸⁶

WATANABE BEGINS 1989 BY TAKING ON HEALTH-CARE COST-EFFECTIVENESS

In January, Liberal MLA Sheldon Chumir (1940–1992) organized a health-care forum and asked Dean Watanabe to speak. On January 15, the *Calgary Herald* published an article summarizing Watanabe's frank comments that "Politicians and doctors must do some soul searching to determine how best to deliver quality care as economically as possible."⁸⁷ The article continued:

Doctors must begin eliminating those services which don't improve health or quality of life. . . . Watanabe said one example might be for doctors to measure how treatments prolong quality of years rather than just extending life itself. He didn't give examples of treatments that could be cut. . . . Watanabe said despite advice to the contrary politicians have been unable to avoid duplicating expensive, high-tech facilities such as cardiac surgery. . . . Politicians don't want to fund preventive medicine because its effects are only felt after many years, while politicians are re-elected every four years.⁸⁸

The article contained several direct quotes from Dr. Watanabe:

Physicians must evaluate quality of care, cost-effectiveness, outcome and performance against an acceptable set of standards. . . . It's time that we confronted politically motivated expenditure and acknowledged it for what it is and stop blaming physicians and patients who have no part in the decision-making that incurs these costs.⁸⁹

One of the recommendations of the 1985 accreditation review was that the elective program in years one and two of the UME curriculum be reviewed, as electives were a “loose arrangement” with supervisors providing oversight of the student’s activities with variable levels of rigor. The results of this review, including recommendations on how to formalize electives, were presented at the March 8 FC meeting. The motion to accept the report and its recommendations carried with five students opposing. Because of strong student opposition, the report and recommendations were referred to the Curriculum Committee, with resolution of the outstanding issues ultimately coming through compromise.⁹⁰

The term “Foothills Medical Centre” was introduced to the FC in March. The dean said this referred to the “site” that included the Foothills Hospital, the Health Sciences Centre, the Tom Baker Cancer Centre, and the Heritage

Medical Research Building.⁹¹ In the spring, the FC approved the allocation of the third floor of the Heritage Medical Research Building for the Cancer Research Centre, with a projected completion date of June 1989. The centre’s director would be the new Terry Fox Foundation Professor.⁹²

By mid-year, the Faculty of Medicine had 286.4 FTE positions, of which 183.3 (or 64 per cent) were fully recovered from non-university funds. Since 1985, there had been a 23 per cent increase in assistant professors at the U of C, with small changes in other professorial ranks.⁹³ Other important occurrences included former dean William Cochrane being awarded the Order of Canada; inaugural associate dean (graduate clinical and continuing medical education) Gerald McDougall stepping down after ten years in the position; a successful five-year on-site review of the U of C program by the CFPC; the formation of a Medical Education Research Group; and the approval of four-week mandatory family medicine rotations in both the UME (to begin in 1992–3) and PGME curricula.⁹⁴ Seventy-five students were accepted into the class of ’92.

Lionel McLeod resigned as president of the AHFMR in October and the board began a search for his replacement. When McLeod started, the foundation had few budget constraints. According to Robynne R. Healey, Carolee Pollock, and Julian Martin, “in 1988, declining returns on the endowment’s investments, the expenditure of \$60 million on buildings, and the failure of the Alberta government to supplement the endowment as promised combined to make reconsideration of

budget priorities imperative.”⁹⁵ Dealing with these budget realities on an ongoing basis likely made continuing in the position of president less desirable for McLeod.

THE BUDGET AND CHANGES AT THE AHFMR CREATE UNCERTAINTY IN 1990

Another budget cut was announced for the 1990–1 fiscal year. The dean told the FC that, although the overall budget had increased by 3 per cent, due to inflation this translated to a 2 per cent cut. Therefore, the faculty would incur a loss of \$250,000.⁹⁶

Early in the year, the MCC issued a position paper supporting a change in format for its qualifying exam with a view to increasing the compatibility and portability of licensure requirements. This involved ongoing deliberations between national licensing agencies, the medical schools, and the MCC. Some of the proposed changes would create problems for the U of C and its three-year curriculum. Therefore, the EFC responded with its “Response to the Medical Council of Canada Proposal for the Updated LMCC: February 7, 1990.” It was made clear that the U of C did not support the current proposal. Further, the EFC recommended the following: part 1 of the exam be held at the end of the medical school curriculum; assessment of clinical competency take place during the post-MD training period; one examination be developed that would be acceptable for medical licensure and certification by the College of Family Physicians; those pursuing Royal College programs be given the option of limited licensure

and not participating in the general licensure program or taking the examination for general medical licensure; the knowledge and competencies to be assessed be defined and communicated; the validity of the proposed examination format administered nationally for assessment of clinical competency be guaranteed; broad discussions take place with post-graduate trainees and deans prior to implementation; and broad general agreement be attained prior to implementation.⁹⁷

On a more positive note, the Alberta-Pacific Rim Sister Province Medical Exchange Program was expanded during this period to include links with the Sapporo Medical College in Japan, Hallym University in South Korea, and Harbin Medical University in China. The announcement that the Foothills Hospital would be building a parkade in the area currently occupied by the tennis courts and adjacent to the nurse’s residence was well-received by clinical faculty.⁹⁸

On May 9 a new associate deanship was established for the Office of Continuing Medical Education with the approval of the FC. This role was previously linked to graduate clinical education. Keith Brownell remained associate dean (graduate clinical education) and John Parboosingh became the associate dean (CME) later in the year.⁹⁹ Also in May, Matthew Warren Spence (b. 1934) attended his first meeting of the Board of Trustees as president-elect of the AHFMR. Spence, an Alberta native, was a pediatric specialist/biochemist who had been the MD/PhD director of the Atlantic Centre for Mental Retardation and the director of research at the Izaak Walton

Killam Children's Hospital in Halifax, as well as a former vice-president of the Medical Research Council of Canada. As such, his qualifications were impeccable. At the May meeting, the budget projections for 1990–1 were grim. They were “based upon two criteria: the endowment should last into perpetuity and that inflation be included in budget calculations.”¹⁰⁰ In mid-year, the Getty Commission released its “Rainbow Report.” It argued in favour of a “phased-in budgetary shift to prevention,”¹⁰¹ regionalization that focused on local needs, greater attention to human resources planning, better health data collection (potentially through electronic “smart cards”), and “some private financing to increase choice and competition and redefinition of insured services.”¹⁰²

The AHFMR's Board of Directors, aware that the foundation needed to plan strategically for the future, noted that the Rainbow Report suggested that the foundation broaden its existing biomedical research mandate to include “research into health care systems, health status, intervention outcomes and promotion and prevention.” As the AHFMR's new president, Matt Spence was expected to lead the foundation through these changes.¹⁰³ Late in the year, it was announced that the Joint Injury and Diseases Unit would occupy the fourth floor of the Heritage Medical Research Building, with construction finishing around June 1991. Mark Adams had been appointed to the Arthritis Society Chair in Rheumatic Diseases/Rheumatology.¹⁰⁴

At the December 19 FC meeting, Grant Gall, associate dean (research), spoke extensively about

the upcoming AHFMR competition. Matt Spence's installation as president in July, combined with the considerable turnover in the AHFMR's board, added elements of uncertainty to this important competition, which would provide insight into whether the AHFMR's soft funding could be considered to provide a secure and safe future for senior biomedical investigators. Gall reported to the FC on his meetings with President Spence. The December 19 FC minutes summarized this as follows:

Dr. Spence had given assurance that submissions to the Scientific Advisory Committee of AHFMR would receive appropriate review by carefully-selected external reviewers, as well as through ad hoc additions to SAC [the AHFMR's Scientific Advisory Council], by an added body of internal reviewers as deemed appropriate. The issue of a terminal policy for scholars and scientists is currently under review, and after consideration by Trustees, will be widely disseminated in the new year. Dr. Spence had advised Dr. Gall that, in future, applicants to various AHFMR competitions will receive verbatim accounts from external referees as well as the traditional executive summary when adjudications have been completed. Finally, Dr. Gall indicated his desire to correct the faculty perception of “zero growth.” Data were presented

indicating that Heritage funding allocated to The University of Calgary had plateaued by 1984 and had since decreased to some extent. This was contrasted with data showing that, despite this, there had been a total growth in research funding. Dr. [Kenneth D.] Lukowiak inquired if these figures reflected a growth in faculty numbers or merely an increase in operational funding. Dr. Gall responded that data in that regard had not been accumulated but that his expectation was that these would reflect continued faculty growth. In response to questions from Dr. Marvin Fritzler, Dr. Gall indicated that Dr. Spence had assured him that there was no intent to “cap” numbers of Heritage scientist and the selection process for reviewers for Heritage grant applications rests with Dr. Spence. Dr. Gall had suggested to Dr. Spence that a scientific committee be established for this latter purpose as is the practice of the Medical Research Council. Dr. Watanabe advised the Council of Dr. Spence’s intent to meet with scholars and scientists sometime in January, 1991.¹⁰⁵

To understand the sense of urgency in Calgary about this renewal competition, some context is required. According to Healey, Pollock, and Martin, when the AHFMR was first founded, “the

University of Calgary was better prepared to take advantage of the new source of funding and, as a result, experienced greater success in the early award competitions at all levels.”¹⁰⁶ In general, applications from the U of C, a relatively new medical school needing to build its research programs (as opposed to U of A, which was more established) had been more carefully prepared. Again, quoting Healey, Pollock, and Martin: “Watanabe [who at the time had been the associate dean of research] was keen to have a commitment to a research philosophy pervade all aspects of the institution as it did at the more established University of Alberta. To this end, Watanabe ensured that any applications leaving Calgary were vetted locally and were of as high quality as possible. . . . This paid off in many successful applications.”¹⁰⁷ At this time, AHFMR scholars who had been recruited to Alberta at the beginning of the scholars program were coming to the end of their second and final term; these scholars either needed to be promoted to the status of AHFMR scientists or else risked having no continuing salary funding (unless the U of C could provide it). Therefore, the future of biomedical research at the U of C was highly dependent upon renewal of these soft-funded research salary awards.¹⁰⁸

Other important occurrences during this period included an open house from October 17 to 19 to recognize the university’s twenty-fifth birthday; approval of the guidelines on outside professional activity, a document describing when faculty members should report outside activities to their department head (and in some instances fill out

the relevant form); approval of a detailed “Policies and Procedures: Clinical Clerkship Undergraduate Medical Education Faculty of Medicine University of Calgary” document; and the election of members from the Faculty of Medicine to serve on the selection committee for the U of C’s next dean of medicine.¹⁰⁹

In other news, seventy-two students were accepted into the class of ’93. On December 19, the FC passed a set of new rules that would apply to the class of ’94. Accordingly, the minimum grade point average requirements for formal applications to medical school for Alberta residents were set at 3.0, and at 3.5 for Canadian residents; for applicants from abroad this was 3.75.¹¹⁰

BLACK FRIDAY (1991)

There had been huge anticipation related to second-term renewals and the first round of AHF-MR promotions. While considerable consultation had occurred between the two Alberta medical schools and Dr. Spence prior to and during the renewal competition, in retrospect, all parties failed to reach a consensus on the expectations for promotion from the scholar level to the scientist level, and, to make things much worse, the parties did not fully recognize this. To further complicate matters, because of the large number of applications in this competition, the SAC had approved a new ranking system based upon the MRC scale, with possible scores ranging from zero (unacceptable) to >4 (excellent), as opposed to the yes/no system that had been used in all previous competitions,

in which applicants either met the bar or did not; the new system meant that each applicant had a numerical score that could be ranked.¹¹¹

On Friday, February 22, the results were announced. In the competition for promotion from scholar to scientist, there were 17 applicants, of whom only 4 were funded (4 of 9 from the U of A; zero of 8 U of C). For scholarship renewal, 2 of 4 U of C applicants and 1 of 2 U of A applicants were funded. In the new scholars competition, there were 7 of 8 successful applicants from the U of C and 1 from the U of A. Among clinical investigators, 1 of 2 new applicants were funded and 1 of 2 were renewed. In one fell swoop, the future of the U of C Faculty of Medicine research program seemed uncertain. This competition was dubbed “Black Friday” in Calgary. Even the more junior faculty members who were successful naturally worried about their long-term future in Calgary.¹¹²

To make matters worse, an SAC member leaked some of the confidential internal discussions to researchers in Calgary and indicated that there had been strong support for promotion of eleven of the applicants (rather than just the four highest-ranked applicants). This precipitated a letter-writing campaign. According to Healey, Pollock, and Martin:

The letters, which fill a four-inch binder to overflowing, are instructive for their polarized nature. Letters from researchers at the University of Calgary were generally vicious in their attacks on Spence’s leadership, accus-

ing him of misrepresenting results of the SAC review to trustees. Letters from researchers at the University of Alberta were more supportive of the new president. Certainly, one can argue that the success of four applicants from the University of Alberta might have led to the greater sense of support expressed by those researchers. However, there is more to it than this. Clearly, the two universities held completely different understandings of the mandate of the Foundation, the role of the SAC and the trustees, and the state of the endowment.¹¹³

There was an attempted appeal to the AHFMR Board of Directors by members of the U of C faculty, which was not successful. However, according to Gall:

it was agreed, after many years of submissions to this effect from both Universities, to develop a Heritage Advisory Committee consisting of Alberta Scientists. This Committee is to assume the policy role of the previous Scientific Advisory Committee and is to be involved in long-term planning, day-to-day issues and monitoring programs. The Committee is to deal directly with the Board of Trustees. Gall considered that this represented a positive step that would, for the first

time, enable a true partnership between the Universities and Heritage.¹¹⁴

The Calgary members were Quentin Pittman, Marvin Fritzler, Jim McGhee, Hans Van de Sande, and Grant Gall; the committee was chaired by Matt Spence.¹¹⁵ Clearly, the U of C, the U of A, and the AHFMR had not agreed on whether the AHFMR was meant to have a pyramidal structure or not. AHFMR's expectations, at least as the province's finances increasingly worsened, was that the universities would pick up many of the salaries for faculty members recruited with junior salary awards. But the universities were not in a financial position to do this.¹¹⁶ To Watanabe, the outcome of this competition was a total surprise; he was, as he later indicated, very angry: "I spoke with the chair of the board, Al Libin, [and] made an appearance at the AHFMR board meeting, but they were unyielding and the decisions stood. . . . I don't know if our faculty knows how much I fought for them at Heritage since I didn't want to display my anger publicly."¹¹⁷

The fallout was considerable. According to Grant Gall, "an initial reaction of outrage was followed by one of profound disappointment with the impression of 10 or 12 years of Faculty-building having been destroyed in such a short time."¹¹⁸ He further indicated that "his office did not consider that the adverse decisions made properly reflected the real worth of the candidates involved and that they were, in fact, first class scientists."¹¹⁹ When recently interviewed for this book, U of C faculty member Quentin Pittman, a vocal member

of the Calgary committee of AHFMR scholars and scientists that was then seeking Spence's resignation,¹²⁰ concluded that

in retrospect, first of all, they [the AHFMR] were getting to the maximum carrying capacity. So, if you want more people coming in it means that somebody has to go out the door. And to be honest, all of the people recruited . . . did not turn out great. The thing about hiring scientists is [that] so often as a trainee your career is inextricably linked up with your supervisor because you're working on their projects, doing their things, working on their ideas—it's a synergistic relationship, but it's very difficult to know how you're going to do once you get away. . . . So some people, when they get on their own, just don't do that well. In retrospect [the outcome of this competition] . . . cut off some of the people who weren't really stellar performers, and a few other people who didn't really have the stomach for the risk bailed out and left. It was an upsetting time, but in retrospect I don't know if it was all so bad . . . and we continued to recruit all through the '90s on Heritage and did recruit intermittently on Heritage until they closed the program recently.¹²¹

A detailed and less emotion-laden analysis of these events, which became known within the AHFMR as "the crisis," comes from Healey, Pollock, and Martin, who note that the crisis was "not the result of a single event—in this case one round of competition for a particular award. Rather, it was the result of a number of simmering dilemmas that happened to boil over at a particular moment."¹²² These additional issues included the U of C's dependency on AHFMR soft funding to run its medical school; the crashing price of oil and its effect on the provincial economy; the implementation of Premier Getty's austerity programs and related university budget cuts; the AHFMR's overcommitment of its funding (both in terms of its research awards and its commitment to construct research buildings in Calgary and Edmonton); the government's decision not to supplement the foundation's endowment, as earlier promised; and differing philosophies related to the AHFMR's mandate and decision-making processes.¹²³ Fortunately, U of C applicants to the MRC were more successful than the national average, providing some immediate vindication for the quality of the faculty's research. But, ominously, the overall national funding rate had decreased significantly. Later in the year, Henry Friesen of the University of Manitoba accepted the position of president of the MRC, and rumours of major changes that could decrease federal funding for biomedical research were rampant.¹²⁴

Basic scientists at the U of C were also worried about the upcoming AHFMR external review and strategic planning exercise. They were concerned

that plans were under development to expand the foundation's research mandate from biomedical research, which it had been supporting since its inception, to include clinical and health research.¹²⁵ According to Watanabe,

the AHFMR's original legislated mandate was to support biomedical research, and support for public health research was explicitly excluded. Scientists feared that the AHFMR's hidden agenda was to shift research focus away from basic biomedical research to applied research. This was ironic since I was pushing MRC, who at that time was undergoing a strategic direction review and consultation, to broaden their research base to include health services research, population health, and psychosocial research.¹²⁶

Physician workforce concerns also persisted throughout this period, and Dean Watanabe's involvement continued. As he later explained:

It was my research background that allowed me to participate in the dialogue. I always wanted evidence to not only backup but also inform policy decisions. When governments across the country started to take drastic measures to cut medical school enrolment, I started to develop what I call the science of physician workforce

planning and became one of the national spokesperson predicting that not only were we not looking at physician oversupply, but in fact would be facing a physician shortage in Canada. Our own minister of health, Nancy Betkowski, hosted a meeting of the federal and provincial ministers of health in Banff. I attended and made a presentation as an intervener on behalf of the Association of Canadian Medical Colleges but armed with the Barer-Stoddard Report, the ministers marched ahead with their plans to cut enrolment by 10 per cent. Politics trumped science that day.¹²⁷

The Barer-Stoddard Report, "Toward Integrated Medical Resource Policies for Canada," commissioned by the Canadian deputy ministers of health and discussed by the health ministers in Banff, was eventually published in February 1992.¹²⁸ On 25 September 1991, Watanabe told the FC that "the press reports indicate that early implementation of the recommendations might be anticipated. Many recommendations have major implications for medical schools so that a response is imperative and is being developed for this school. Issues raised relate to the admissions process to medical schools, the undergraduate curriculum, residency programs, the funding of academic health sciences centres and many other issues having an impact on our activities. One particular recommendation would have medical school enrolment in Canada

reduced to 1,600 positions (a reduction of 150–160 positions).¹²⁹ At the following FC meeting, on December 11, Dean Watanabe reported that the faculty had developed a response to the Barer-Stoddard Report and that copies were available from his secretary.¹³⁰

Other important occurrences during this period include the establishment of a new Department of Oncology; Alberta Health's announcement that it would gradually shift the ratio of residency allotments for specialists and family physicians from 50:50 to 60:40 due to the former group's retirement rate; and the first History of Medicine Days, an annual gathering of medical students from Canada in Calgary to present abstracts related to the history of medicine.¹³¹ Seventy-three students were accepted into the class of '94.

Transition to the Smith Deanship in 1992

By early 1992, the provincial Ministry of Health was pushing for decreased enrolment in both the undergraduate and postgraduate programs at both medical schools in Alberta. It was unclear if there would be any budgetary implications associated with this development. According to the minutes of the FC's meeting of March 11, Dean Watanabe indicated

that this decision would finally be made by the Department of Advanced Education and that the Ministry of Health recommendation had

been forwarded to this department, and the matter will be discussed at a meeting in late March 1992. Alberta Health has assured the deans that there would be no cuts in enrolment without consultation with the two medical schools. Furthermore, the Department of Advanced Education has indicated that they will not take a unilateral decision regarding decreased enrolment. He pointed out that the fact remains that the Alberta government made a commitment to the other (provincial) ministers of health to make some cut in enrolment. A meeting involving faculty from five western universities will be held in April to discuss matters arising from the Barer-Stoddard Report and this will include cuts in medical school enrolments. The provinces of British Columbia and Saskatchewan have already indicated that they will not accept any cuts in their enrolment so there will be pressure on the universities in Alberta and Manitoba to decrease enrolment. . . . With respect to postgraduate programs, Dr. Watanabe indicated that Alberta Health may decide on a reduction, but at this time there is a committee reviewing postgraduate training positions and the recommendation of the committee has been for an increase in post-

graduate programs at both universities.¹³²

Biomedical basic scientists suffered a second shock only a year after Black Friday. Rumours were rampant that the MRC was planning to restructure and broaden its funding mandate. From 2 to 3 April 1992, the MRC, Henry Friesen, and representatives of the firm of Coopers-Lybrand visited the U of C to consult with stakeholders. On April 2, there was an open forum on the directions of the MRC, and on April 3 there were all-day workshops with thirty working groups to engage stakeholders. This was part of a national process to review all aspects of the MRC's activities and to develop plans for the 1990s. Biomedical scientists across Canada were concerned that money formerly earmarked for basic biomedical research would soon have to be shared with population health and other non-basic-science researchers, and that this was not going to be associated with an influx of new funding.¹³³

As the minutes of the FC's 13 May 1992 meeting indicate, bad economic news continued during this period:

Dr. Watanabe commented on recent newspaper articles with regard to budget cuts. He advised Faculty Council of the position of the Minister of Health in that regard. Over the next four years the total health care expenditure, currently about 3.5 billion dollars, will remain at that level.

No additional dollars will be allocated for new programs. Most of the cuts will occur at acute care institutions and thus will impact heavily on the faculty of Medicine.¹³⁴

This would represent a challenge for the new incoming dean, Eldon R. Smith, who was appointed the U of C's fourth dean of medicine on 1 July 1992. The inflation-adjusted price of oil had plummeted roughly two-thirds during the eleven years of Dean Watanabe's tenure. It seemed clear, then, that Dean Smith was in for hard times unless the price of oil skyrocketed again.

However, before he accepted the position of dean, Smith obtained a commitment from U of C president Murray Fraser (1937–1997) to guarantee six salaries for faculty members coming off AHFMR salary awards.¹³⁵ That year, seventy-four students were accepted into the class of '95.



Eldon Raymond Smith
OC, MD, FRCPC, FACC, LL.D (Hon)

The Dean Smith Years, 1992–1997

David B. Hogan

Early Signs of Trouble

Dr. Smith assumed the role of chief executive officer of the U of C Faculty of Medicine in July of 1992. Just before the start of his tenure there was a gathering of storm clouds.¹ That March, the AHFMR did not renew eight of the twenty-one faculty researchers who applied. Until 1991, when all nine U of C applicants were rejected, non-renewal was unusual. Financial support from the foundation was seemingly for a person's academic life. This was of great concern, as the AHFMR funded over a quarter of the medical school's faculty positions.² A petition signed by over fifty faculty members calling for the resignation of Dr. Spence, the president of the AHFMR, was only withdrawn after an emergency meeting with Dr. Smith and outgoing Dean Watanabe was held.³

Fortunately, the AHFMR Bridge Faculty Support Program, along with the creation of an institutional sustainability fund, stabilized the faculty's financial situation.⁴ There were further grounds for optimism. For example, in 1993 the remote consultative network pilot linking the U of C Foothills campus site with Drumheller was launched,⁵ and the joint review conducted by the Committee on Accreditation of Canadian Medical Schools (CACMS) and the LCME led to a full seven-year accreditation for the faculty.⁶ Other events of note during the first seven months of 1993 failed to presage that anything extraordinary was going to occur. The second dean of the faculty, Lionel Everett McLeod, passed away in April from pancreatic cancer.⁷ That month Gordon H. Dixon (1930–2016), a member of faculty, was appointed an officer of the Order of Canada.⁸ Finally in July of 1993 the Dr. Clara Christie Lecture Theatre was dedicated. Dr. Christie (1895–1987) was the first female obstetrician in Alberta and practised in Calgary

for twenty-seven years.⁹ In 1981, to honour her brother, she founded the Nat Christie Foundation. For over twenty years the foundation provided funding for worthwhile projects in the Calgary area before dissolving in 2003. Its last series of gifts included \$3.5 million for the faculty.

The rains came in June when Ralph Klein (1942–2013) and the Alberta Progressive Conservative Party won a solid majority in the 1993 provincial election. One of Klein’s key campaign promises was to eliminate Alberta’s \$3.4 billion (current dollars) deficit by 1996–7. To achieve this goal the so-called Klein doctrine was used. This entailed centralizing control of public expenditures in Edmonton; limiting the size of government by privatizing as much as possible; creating a low tax and royalty environment that encouraged investment; and offloading costs to municipalities and individuals.¹⁰ Premier Klein described his approach to achieving these goals as follows: “Go fast, target the big three spenders [health, education, and social programs], be honest, be consistent and keep it simple”¹¹

Deep funding cuts were announced when the provincial budget was tabled on 24 February 1994. Though education, advanced education and career development, health, and family and social services received “preferential treatment,” and were therefore protected from the largest reductions, their expenditures were still projected to decline 12.4 per cent, 15.8 per cent, 18 per cent, and 19.3 per cent, respectively, by 1997.¹² The U of C Faculty of Medicine had to deal with the twofold impact of decreased funding in both advanced education

and health. This led to declines in its operating budget and the concomitant loss of valued support staff, reductions in capital equipment funding, erosion of its clinical base, and a slowing in the recruitment of new academic faculty. In response to the decline in provincial funding, other sources of revenue had to be developed. As will be seen, notwithstanding these pressures, under the leadership of Dean Smith the medical school retained its core of excellence and made several remarkable educational and research contributions.

Cuts, Closures, and Creative Solutions: The Klein Revolution Comes to Calgary

In 1993 there were seven acute care hospital sites in Calgary (Alberta Children’s, Bow Valley Centre, Foothills, Salvation Army Grace Women’s Hospital [Grace], Holy Cross, Peter Lougheed Centre [PLC], and Rockyview) grouped into five organizations.¹³ That year the boards of each of these organizations retained Price Waterhouse, a large international firm providing a variety of professional services, for objective advice on how to deal with an anticipated 20 per cent cut in funding and restructuring of the acute care hospital system in Calgary.¹⁴ To inform this work, ten task forces were created. Recommendations submitted by these task forces included cutting the number of emergency, trauma, and obstetric units; consolidating pediatrics, neurosciences, and mental health emergency services; creating a women’s

health institute with programs in three hospitals; and integrating geriatric and rehabilitation services within hospital sites. The cardiovascular services task force could not agree on whether interventional services should be provided on one or two sites.

Though the task forces dealt with individual programs, their suggestions foreshadowed the eventual closure of two, possibly three, acute care sites.¹⁵ An early draft of the final Price Waterhouse report released in December of 1993 presented ten scenarios to local hospital leaders. The five that received the most serious consideration entailed closing three or four acute hospital sites (Alberta Children's, Bow Valley Centre, Holy Cross, and/or Grace).¹⁶ In January of 1994, a modified final version of the Price Waterhouse report was presented to the local hospital leadership group. This and a proposal to establish a regional "superboard" for the city led to a series of urgent meetings to look at the various governance and operational options.¹⁷ In February, the Price Waterhouse report was formally presented to the health minister. The favoured options of the authors of the report involved keeping the Foothills, Rockyview, and PLC hospital sites open while closing three of the remaining four (Alberta Children's, Grace, Holy Cross, and/or Bow Valley Centre).¹⁸

While this was going on, a provincial health roundtable was held in Red Deer from 26 to 27 August 1993. Over 160 people were invited to come and discuss health-care reform and funding. Though billed as a public consultation conducted by the provincial government, it has also been

described as a well-scripted exercise "designed to sell Albertans on the new political agenda."¹⁹ At the meeting, the case was made that dramatic action was needed to forestall the Province hitting a fiscal wall, but no specifics were provided in terms of how this would be done.

After the Red Deer meeting, a self-selected group of thirty-five health leaders known as the Group of 35 came together to devise a plan to achieve the desired savings of over \$700 million without harming essential health services. In early 1994, the group submitted to the minister of health a fifty-page report outlining target-driven reductions in acute care utilization (which would necessitate closing hospital beds if projected savings were to be realized) and recommendations to de-insure some health services, require seniors to pay health-care premiums, and either to tax health-care benefits or charge a health-care "deductible."²⁰

While Dean Smith had expressed confidence in September 1993 that significant health-care cuts could be made, he warned against large ones (i.e., 25 per cent or more).²¹ The financial pressure, though, continued to increase. In October of that year, Premier Klein asked for concessions in public-sector wages. All health-care workers were targeted for a 5 per cent reduction in pay as of 1 January 1994.²² In December 1993 the *Starting Points: Recommendations for Creating a More Accountable and Affordable Health System* report was released. It recommended more local control of health care. This led to the introduction of Bill

C-20 (the Regional Health Authorities Act) in March 1994.

This bill called for the creation of seventeen health regions and provincial boards whenever the minister deemed there was a need (there were two identified at the time—the Alberta Cancer and the Provincial Mental Health Boards). It also outlined the broad powers of the regional health authorities (planning and delivery of a wide range of health services within consolidated regional global budgets) and identified the numerous other acts that would have to be repealed or amended to allow this to take place.

While the establishment of regional health authorities would seem on the surface to go against the desire to centralize control for public expenditures in Edmonton, the act led to the elimination of nearly two hundred local hospital and public boards.²³ All funds for the regional authorities were provided by the Province, which controlled the authorities' budgets. Public complaints about health care could be deflected to the regional authorities and away from the provincial government.²⁴

Early in 1994, Calgary hospital leaders complained that the actual and projected budget cuts to the city's hospitals of over 30 per cent would jeopardize key programs,²⁵ but they couldn't agree on which facilities should close. The hospital board chairs and the minister of health opted to strike a committee of three to break the gridlock on this issue and make a recommendation by the middle of April 1994. Former cabinet minister and chair of the Premier's Commission on Future Health

Care for Albertans (1987–9) Lou Hyndman (1935–2013) accepted the invitation to head the panel.²⁶

In their submitted report (created without seeking input from the U of C Faculty of Medicine),²⁷ they suggested closing the Holy Cross Hospital (which would become the major geriatric centre for Southern Alberta), Bow Valley Centre (converting it to a community health centre with a small emergency department and possibly a number of women's health programs run by the Grace foundation), Grace, and the Alberta Children's Hospital (moving its programs and services to the Foothills site). The land and buildings of the Grace and the Alberta Children's Hospitals would be sold, with 20 per cent of the returns going to their respective foundations. Acute care in Calgary would be concentrated at Foothills, Rockyview, and PLC. The total number of hospital beds would drop by a third, from about 2,700 to approximately 1,800.²⁸

Initial public reaction to the proposed closure of the Alberta Children's Hospital was particularly negative.²⁹ A rally of about five hundred people was held against this recommendation.³⁰ Pediatrician Dr. Ian Mitchell, vice-president of the Children's Hospital and member of U of C faculty, was quoted in the *Calgary Herald* as saying that the call for the hospital to move to the Foothills Hospital site was “nonsense and detrimental to children” and the health-care system.³¹

The recommended closure of the other three hospitals also led to objections.³² The medical vice-presidents of the Calgary General Hospital and the Calgary District Hospital Group jointly

called for a temporary closure of the Holy Cross with the final decision of which of the two downtown hospital sites—Holy Cross and Bow Valley Centre—to close permanently being made at a later date; they also recommended the permanent closure of the Colonel Belcher, Grace, and perhaps the Alberta Children’s Hospital.³³ After the report was released, the chair of the Board of Trustees for the Grace began discussions with the chair of the Foothills Hospital Board about a site partnership agreement between the two; it was suggested that the two organizations would occupy the same site but operate independently. These discussions led to a proposal that the operations of the Grace be moved to the Foothills site while maintaining its name and Salvation Army involvement.³⁴

In June of 1994, the Regional Health Authorities Act was passed.³⁵ Appointment of the board for the Calgary Regional Health Authority (CRHA) followed quickly.³⁶ That July the CRHA announced its plans to close the Bow Valley Centre, Holy Cross, and Grace sites while retaining the Alberta Children’s Hospital.³⁷ Dr. Larry Bryan was appointed the CRHA’s chief executive officer but quit in 1995 because of burnout.³⁸ Paul Rushforth replaced him (Bryan later wrote a book about the design of health-care systems³⁹). At the time, some complained that the CRHA was “stacked with Foothills representatives.” For example, John Robert (Bud) McCaig (1929–2005), who chaired the CRHA Board,⁴⁰ was the former vice-chair of the Foothills Board and chair of its charitable foundation, while Dr. Bryan, the CRHA’s chief executive officer, was the former president of the hospital.⁴¹

Even though the Province was running a surplus by 1994–5, the financial squeeze on health-care funding continued with the major public-sector labour unions and other stakeholder groups like the Alberta Medical Association seemingly powerless to prevent it.⁴² This changed in November 1995 when 120 Calgary laundry workers who had accepted a 28 per cent pay cut in an effort to keep their jobs were told that their positions were going to be contracted out. With nothing to lose they walked off the job in a wildcat strike that was greeted with a remarkable degree of public support.⁴³ Shortly afterwards, the provincial government announced that further planned cuts in health-care funding would be suspended.⁴⁴ In his book *King Ralph*, Don Martin dates the end of the Klein revolution to this event.⁴⁵ While Albertans supported the government’s deficit-elimination strategy, there was growing concern about its impact on public services.⁴⁶ By late 1995, in the face of the positive provincial budget and increasing evidence that the government did not have a well-thought-out plan for restructuring, a tipping point had been reached.⁴⁷

In the December 1995 issue of *The Bulletin*, the faculty’s monthly newsletter, Dean Smith acknowledged with gratitude the provincial government’s decision not to enact further proposed health-care cuts of more than \$53 million for 1996–7. But at the same time, he noted the continuing pressure, especially on acute care in Calgary and Edmonton, which had experienced overall budget reductions of 25 per cent—or 35 per cent when inflation was considered. He wrote, “Whether we can conserve

quality in the system with the current budgets (even without further reductions in 1996–1997) remains a question to be answered.⁴⁸ Total health-care spending per capita from the public sector in Alberta, then at less than \$1,400 (current dollars) per year, was the lowest in Canada. Four per cent of the provincial GDP was being spent on health from the public purse, a rate lower than public expenditures in the United States. While it is well known that a higher percentage of the GDP is spent on health in the United States than other countries, it is less appreciated that much of this expenditure comes from the private sector, not government. During the 1990s, approximately 71.6 per cent of all health-care spending in Canada was publicly funded, compared to 42.3 per cent in the United States. The point Dean Smith was making was that even if restricted to a discussion of public expenditures, Alberta was spending less on health care than the United States. Considering this, it was hard for Dean Smith to understand why there was so much interest in the privatization of health care. He asked that the issue of the costs of medical education and clinical research be addressed.⁴⁹

Dean Smith's article was picked up by the local press,⁵⁰ and in a letter to the *Calgary Herald* then deputy health minister Jane Fulton (b. 1947) did not dispute the extent of the budget cuts to urban acute care hospitals.⁵¹ In late 1996, Dean Smith told the governing council of the Alberta College of Physicians and Surgeons that "reform of the healthcare system has been sideswiped by restructuring to meet financial targets."⁵² And in a subsequent faculty newsletter, he made the case

that some of the recent reinvestment in health should be targeted to education and research.⁵³

The hospital closures ran their course. The Grace relocated its maternity services to the Foothills site in 1995.⁵⁴ Between January and March of 1996, both the Grace and Holy Cross Hospitals closed.⁵⁵ A formal agreement reached between the Salvation Army and the CRHA ensured that the Grace name would be retained, with the Grace Women's Health Centre relocating to the North Tower of the Foothills site. This building was the former residence of the Foothills School of Nursing. Responsibility for delivery and neonatal care was assigned to the Foothills Hospital, while the centre would look after a variety of ambulatory, information, and education services.⁵⁶ The Bow Valley Centre was gradually decommissioned between April and June of that year. This entailed closing a million square feet of space, transferring an equal number of patient files, and relocating or eliminating 2,000 staff, 3,000 phones, 1,000 computers, and 100 programs and services.⁵⁷ The buildings that housed the centre were imploded on 4 October 1998.⁵⁸ The Bow Valley Centre was the largest North American hospital ever to be shut down with its functions, equipment, staff, and patients transferred to other facilities. Its closure left Calgary as the only large Canadian city without a downtown emergency department.⁵⁹

In 1994, Alberta physicians reluctantly agreed to a nearly \$60 million cut in their fees. While lower fees would be paid for all insured services, a good deal of the cost savings was to come from an agreement to phase out fee-for-service payments

for laboratory tests. Private laboratory physicians became salaried, with their compensation approximating what laboratory physicians received in the public sector. Regional health authorities assumed responsibility for funding medical laboratory services. The amount provided by the provincial government for laboratory services (\$170 million compared to the \$244 million spent prior to regionalization) made it clear that the government's intent was to substantially decrease the

amount being spent on laboratory investigations.⁶⁰ Massive restructuring to eliminate duplication and excess capacity led to widespread job losses for laboratory technicians (see table 1 below), the departure of approximately 40 per cent of the province's pathologists, and the closure of many community collection sites. In Calgary, this led to the merger of the surviving private commercial laboratory and the four remaining hospital laboratories to create Calgary Laboratory Services.⁶¹

Table 1: Alberta Health Workforce⁶²

	1992	1993	1994	1995	% Change (1992-5)
Total Personnel					
(employed)	64,942	65,512	58,248	51,639	-20.5%
Physicians^a	4,542	4,571	4,645	4,575	0.7%
Dentists^a	1,389	1,444	1,430	1,427	5.1%
Medical Laboratory Technologists^b	2,621	2,338	2,309	1,756	-34.5%
Licensed Practical Nurses^b	4,331	4,161	3,653	2,499	-42.3%
Registered Nurses^b	19,033	17,652	15,359	10,758	-43.5%

^a Registered: for physicians excludes out-of-province, retired, non-practising life members, members on courtesy or education registries or physicians registered in Special (“provisional”) Register; for dentists (included in table as a comparator) excludes inactive and retired members and some dentists who worked for the federal government but were not registered with the Alberta Dental Association.

^b Practicing or employed (both part-time [less than 30 hours per week] and full-time [30+ hours per week]): in 1995 a lower than usual response rate for hospitals and health units was experienced and as such, employment numbers may be under-represented. The uncertainty about the actual numbers also reflects the degree of disorganization within the health-care system at this time.

Meeting the Challenge

A paper authored by Charles H. Hollenberg (1930–2003), a well-known physician and member of the Canadian Medical Hall of Fame,⁶³ on behalf of the editorial committee of the Canadian Institute for Academic Medicine—which included Dean Smith and former Dean Watanabe—explored the impact of health-care reform during the 1990s on academic medicine.⁶⁴ The challenges faced in Alberta and elsewhere in Canada included such things as reductions in the number and size of teaching hospitals, the creation of regional, multi-institutional decision-making bodies, restrictions on departmental finances, cuts in the number of funded undergraduate and residency positions, and increasing emphasis on clinical and health-system research, arguably to the detriment of biomedical research.

An existential threat facing the U of C Faculty of Medicine during this period was speculation over the future of the two medical schools in Alberta. In a “From the Dean” column in December 1993, Dr. Smith noted that “we continue to hear some people ask whether Alberta needs two medical schools.”⁶⁵ The argument for retaining two schools included the need to train the number of physicians required by the province, the inability of either Calgary or Edmonton on its own to provide the required clinical experiences for 600–800 medical students and 700–800 residents, improved access to specialty services for the residents of both cities, the direct and indirect local economic impact of the faculties,⁶⁶ the substantial sizes of

the two cities, and the impossibility of deciding which faculty to close.

In a 1994 open-line television broadcast, Premier Klein directly raised the possibility of closing law and medical faculties in response to the need for spending cuts. He asked if the province needed “two massive schools of medicine.”⁶⁷ Premier Klein often used comments like this as trial balloons to test public reaction to possible government action.⁶⁸ The minutes for the 14 December 1994 FC meeting recorded that Deans Smith and Lorne Tyrrell (the dean of the U of A Faculty of Medicine and Dentistry) had met with the deputy minister of advanced education and career development to advocate for two medical schools.⁶⁹ They were reassured that there were no plans at that time to downsize or close a medical school. Because of persisting concerns, though, in 1995 the two deans co-authored a guest column in the *Calgary Herald* making the case that Alberta required two medical schools.⁷⁰ These efforts had the effect of fostering greater co-operation between the two faculties of medicine.⁷¹

To deal with declining government funding, the U of C in 1993 announced spending cuts of 17 per cent for academic units and 20 per cent for support services over the next five years, along with increases in tuition fees.⁷² Between 1993 and 1996, the Faculty of Medicine’s budget declined by 12 per cent.⁷³ Among other impacts, this led the Medical Library Committee to cancel 170 periodical subscriptions.⁷⁴ Between 1992–3 and 1996–7 there was an 87 per cent increase in medical tuition fees for Alberta residents (see table 2).

Table 2: Changes in the faculty, 1992–7 (Source: Canadian Medical Education Statistics, Association of Canadian Medical Colleges)

	1992–3	1996–7	% Change
Class Size	72	69	- 4%
Number of Graduates	73 (1993)	57 (1997) ^a	- 22%
Tuition			
Canadian	\$3,162	\$5,922	+ 87%
Non-Canadian	\$6,324	\$10,784	+ 71%
Foreign (above quota slots)	-	\$30,000	N/A
Enrolment (MD program)			
Men	132	104	- 21%
Women	88	104	+ 18%
Albertans	162	125	- 23%
Total	220	208	- 5%
Enrolment (Graduate Science)			
MSc	92	144	+ 57%
PhD	90	95	+ 6%
Post-MD Trainees	301 (11/92)	322 (11/97)	322 (11/97)
Faculty Members			
Full-Time	291	294	+ 1%
Part-Time	634	763	+ 20%
Research Expenditures			
Total (\$000s)	\$38,711 ^b	\$47,232	+ 22% ^c
Rank	9th	9th	N/A

^a Appears to be an aberration as the previous year there had been 67 graduates, and the year after there were 71.

^b It would have been worth \$40,983 in 1997 (Bank of Canada Inflation Calculator, <http://www.bankofcanada.ca/rates/related/inflation-calculator/> [accessed 6 May 2013]).

^c 15% if corrected for inflation.

As with other Canadian medical schools, the U of C Faculty of Medicine made efforts to diversify its revenue base.⁷⁵ This included vigorously seeking financial support from private sources. The Partners in Health campaign (initially called “Breakthroughs”) was launched in February of 1995 with a fundraising target of \$50 million, which made it the largest campaign of this nature ever launched up to that date in Alberta. Harley Hotchkiss (1927–2011) and Richard Haskayne (b. 1934) initially chaired the campaign with Jack MacLeod and Mona Libin serving as vice chairs.⁷⁶ The faculty-CRHA joint effort was designed to seek funds to support health care, education, and research. Proceeds, though, were not to replace government funding for basic programs—rather, they were to support world-calibre programs, allow the launch of innovative programs and services, and maintain critical infrastructure. Designated clinical priorities included heart health, stroke, trauma, joint injury and arthritis, women’s health, and cancer care. Additional areas targeted for support included information systems and educational resources (e.g., remote consultation, library), the addiction centre at the Foothills Hospital, equipment purchases, and the Edge of Excellence Fund, which would allow the recruitment and retention of highly sought-after individuals.⁷⁷

A total of \$51.6 million was eventually raised.⁷⁸ This allowed for the establishment of the Seaman Family Magnetic Resonance Centre (which permitted the Faculty of Medicine to successfully compete for nearly \$5 million in federal funding three years later), support for a women’s health

program through a donation from Nova Corporation, and the creation of a research chair in Alzheimer’s research with funds from the Brenda Strafford Foundation, among other initiatives.⁷⁹ These successes, however, came at a cost. In the December 1995 issue of *The Bulletin*, Dean Smith noted that the fundraising campaign “continues to consume a great deal of my time which does make me less available for other matters.”⁸⁰ The United Nurses of Alberta also expressed concerns that the Partners in Health campaign was giving too much influence to donors.⁸¹ Steps were taken to minimize the likelihood of this happening, which included linking identified internal needs with the interests of donors. At least one sizable potential donation was turned down because of the strings that would have been attached to it.⁸²

Making the MD program available to paying international students was also explored to generate additional revenue. In the spring of 1993, extensive discussions took place at an FC meeting about a proposal to accept students from the International Medical College (IMC), a private English-language health sciences university in Kuala Lumpur, Malaysia, for completion of their medical training. Dean Smith felt the U of C medical school had the required capacity; the question was whether the faculty should proceed. The proposal outlined at the meeting was to take in on a yearly basis approximately five Malaysian students. After three years of preclinical training at the IMC, they would enter the second year in Calgary. Graduate clinical training would take place in Malaysia. A tuition fee of \$25,000 per year

would be charged (in 1992–3 an Alberta resident’s tuition fee was \$3,162; see table 2 above). Concern was expressed about the undesirability of “turning away approximately 1,000 Canadian applicants to our medical school each year and then making it possible for students to buy their way in.” Dean Smith responded that “the reason for cutting back on Canadian student admission was a national issue of oversupply. . . . Malaysia needs 20,000 doctors . . . [and steps would be taken] to ensure all these students return to their own country.” The dean concluded deliberations by asking if there were any strong objections to proceeding with the matter. None were voiced.⁸³ At the September 22 FC meeting, it was announced that Dr. Baumber had signed a memorandum of understanding with the IMC on behalf of the U of C faculty.⁸⁴ The agreement was finalized in 1994, with Malaysian students accepted into the faculty outside of the usual admissions process.

In 1995, the EFC approved a proposed agreement with the Tyumen Oblast region of Russia. The FC was subsequently asked to accept the recommendation that three Russian and one Canadian student be accepted into the U of C’s MD program. The Canadian student was of Russian heritage, fluent in the language, and chosen by the Russian sponsors. It was argued that this student would help the other three acclimatize to Canada. The Canadian student would have separate agreements with both the U of C and Tyumen Oblast to ensure that they would not be included in the Canadian graduate training matching process and would spend a minimum of three years in Russia

at the end of their medical training in Calgary.⁸⁵ The FC turned this proposal down.⁸⁶ Once again, faculty members expressed their frustration that well-qualified Albertans were not able to gain acceptance into medical school because of the hard cap on Canadian student numbers while international students were being accepted. Also at issue was the implications of the proposed pay-back service for the students (especially the Canadian national) accepted into the program.⁸⁷

The FC returned to this issue later in 1996 when it considered a proposal to accept up to twenty-five international medical students per year from prosperous developing countries (i.e., Malaysia, Hong Kong, Taiwan, Kuwait, Saudi Arabia, Brunei, and Russia). A *Calgary Herald* article titled “Foreign Medical Students Sought as Tuition Source” stated that these students would pay \$30,000 a year in tuition (compared to the \$5,922 [see table 2] local students paid in 1996–7); this could raise \$2.25 million (current dollars) per year for the faculty and help cover the budget cuts the school had to deal with. Dean Smith was quoted as saying, “We think we can help those countries and at the same time help us.” He noted that the foreign students would not be taking positions away from Canadians and would pay the full cost of their education. And because of cuts in the number of Canadian medical students the faculty had surplus capacity.⁸⁸

The dean’s contribution to the July–August 1996 issue of *The Bulletin* elaborated further on this proposal. The class of ’99 included a student from the IMC, and it was hoped that five or six

IMC students would come to Calgary in 1997. The agreement with the IMC was the first undergraduate agreement, though there was a prior contract with Saudi Arabia for residency training.⁸⁹ A faculty task force had developed a proposal to govern the future development of such arrangements, and that was to be discussed by FC in September. The rationale for accepting international students was to maximize the use of an excellent educational system constructed for approximately one hundred students per year, coupled with the desire of many countries with rapidly developing economies for practitioners trained in “Western-style” medicine. These countries lacked an adequate number of physicians and the required infrastructure to quickly develop training programs. Students would pay the full cost of their education and not qualify for graduate clinical training in Canada. As Dean Smith wrote, “We can help other countries develop their health care system while receiving fees which will be very welcome at this time of budget reductions.”⁹⁰ The FC approved the proposal at its 25 September 1996 meeting.⁹¹

To deal with declining revenue, the faculty tried to increase organizational efficiency by slowing the growth of academic faculty, cutting support staff positions, consolidating overlapping units, and deferring spending where possible. Between 1992–3 and 1996–7 the total number of full-time faculty equivalents grew by 14 per cent (compared to a 67 per cent increase over the previous five years), while there was a 23 per cent decline in full-time support staff equivalents. Proposals to restructure the faculty were also considered. The

March 1996 issue of *The Bulletin* dealt with potential collaborations within and outside the university. Internal university discussions had taken place about the creation of faculty “groupings” that would make strategic sense. One such grouping was comprised of a Faculty of Health Sciences that would consist of kinesiology, medicine, nursing, and possibly social sciences, education, and/or social work. The major external partnership would be with the Faculty of Medicine at the U of A.⁹² To further this goal, in mid-1995 the deans of the two schools established a task force to create an inventory of current collaborative work, identify new opportunities for either joint programs or consolidation, and explore how information technology could facilitate these initiatives. The task force’s final report itemized the extensive interactions already taking place between the faculties and recommended the creation of a Provincial Academic Health Alliance.⁹³ The report referred to early discussions about an alternative funding plan for academic physicians in the province. Dean Smith had also referred to this in his March 1996 “From the Dean” column.⁹⁴ A consulting firm was retained to explore this further, and in their report to the Council of Academic Health Centres of Alberta, it recommended that one be developed.⁹⁵

By 1996, the worst of the budget cuts had occurred—and in fact, additional provincial funds were now becoming available. For example, \$2 million had been allocated to both the U of A and U of C by the provincial government through the Research Excellence Envelope to recruit new research faculty.⁹⁶

But the U of C Faculty of Medicine was not focused solely on its finances. Major effort was also brought to bear on other important matters, such as addressing sexual harassment as well as gender and employment equity. To this end a variety of initiatives, including the employment of a full-time adviser and the running of frequent educational events, were implemented.⁹⁷ The Gender and Equity Issues Committee was struck in 1994 and chaired by Dr. Renée Martin, a human geneticist with the U of C faculty; it held symposia on gender issues in 1994, 1995, and 1996.⁹⁸ While significant strides have been made, there remains room for improvement in the matters of sex, gender, and employment equity. In 1994 women occupied only 19 per cent of academic positions.⁹⁹ While the percentage had risen to 31 per cent by 2017, this is still significantly lower than the proportion of women in the general population.

Educational Program

In January of 1993 it was announced that the number of incoming medical students at the U of C and U of A would decrease by a total of 19.¹⁰⁰ Before these cuts the U of C was enrolling 72 students per year; this now declined to 69. Overall, between 1992–3 and 1996–7, the number of medical students in Calgary dropped by 5 per cent (see table 2 above).

Between 31 May and 3 June 1993, the ad hoc accreditation team for the CACMS and the LCME surveyed the faculty. In their final, laudatory report they noted the “palpable sense of excitement

about, and clear and widespread commitment to, education” and the positive relationship the school had with its major affiliated teaching hospitals (which had to be recreated with the CRHA, which assumed responsibility for these hospital in 1994).¹⁰¹ But even before the deep budget cuts of 1994 the potential reduction in financial support from the provincial government was identified as the faculty’s primary concern.

In December of 1994, Alberta Health announced plans to curb the number of new doctors coming to the province. Only 210 new physicians would be allowed to register with the Alberta Health Care Insurance Plan the following year. While the anticipated number of graduates from the U of C and U of A could still be accommodated even if all wished to stay in the province,¹⁰² this fed into a perception within the profession that physicians were neither wanted nor needed in Alberta. During the mid-1990s, it was reported that a significant portion of graduating family physicians in Alberta were electing to leave for the United States. Dr. William Hall, then acting head of family medicine at the U of C, worried that the migration of these highly trained young physicians would create a “demographic hole.”¹⁰³ There was also concern about the recruitment and retention of physicians in other areas of specialty practice.¹⁰⁴ For example, in 1993 there were eleven neurosurgeons in Calgary; by 1997, that number had declined to seven, with wait times for non-emergency neurosurgery increasing from six or eight weeks to over a year.¹⁰⁵ The author of an article in the *Journal of Emergency Medicine*

Adult Teaching Hospitals

Graduate medical education was offered at the Baker Memorial Sanatorium (closed in 1980), Calgary General Hospital (CGH), Colonel Belcher Hospital (CBH), and Holy Cross Hospital (HCH) long before the opening of the U of C Faculty of Medicine.¹ The latter three facilities, plus the Alberta Children's Hospital (discussed elsewhere), the Salvation Army Grace Hospital,² the Rockyview General Hospital (RGH), the Foothills Medical Centre (FMC), the Peter Lougheed Centre (PLC), and the South Health Campus (SHC) became indispensable partners to the school in fulfilling its responsibilities.

Calgary District Hospital Group: The Calgary District Hospital Group (CDHG) ran the HCH, CBH, and RGH.³ It was also responsible for the PLC before control was transferred to the CGH.

In 1891 four members of the Sisters of Charity of Montreal (Grey Nuns) established the HCH. In late 1892 the hospital moved to its permanent location, just west of the Elbow River in the Mission district.⁴ A school of nursing was established in 1907. It produced more than 2,400 graduates by the time it closed in 1979.⁵ In 1936 the HCH became the first city institution with a recommended internship program.⁶ Six years later the

first cancer clinic in Calgary was established in an unused operating room on its third floor. In 1948 the clinic moved to the basement before relocating in 1959 to a free-standing building at the HCH site.⁷ Drs. George E. Miller⁸ and John C. Morgan⁹ launched interventional cardiology and open-heart surgery in Calgary at the HCH during the late 1950s and early '60s.¹⁰ Over the years the HCH grew to a nearly 500-bed facility. The Province of Alberta purchased the HCH in 1969, with control transferred to the CDHG in 1970. The hospital closed in 1996, and the buildings sold the following year to Enterprise Universal.

In 1919 the CBH opened for veterans in a renovated warehouse on 8th Avenue SW before moving in 1926 to a nearby building.¹¹ The hospital was named after Lieutenant Colonel Robert Belcher, an original member of the North-West Mounted Police who helped raise the 138th Battalion of the Canadian Expeditionary Force.¹² The Department of Pensions and National Health purchased the Senator Patrick Burns property on 4th Street SW in 1941. The new 250-bed CBH opened there in December 1943. Bed capacity eventually rose to 400. The hospital was known for its general surgery program and a gastrectomy named after it.¹³ Approval for internship training was obtained

in 1946, with graduate medical training in internal medicine and general surgery offered during the 1960s. Ownership was transferred to the Province in 1979, with the CDHG assuming administrative responsibility the following year. In 1991 the CBH was designated a veterans' long-term care facility and in 2003 moved to a new building constructed for this purpose at 1939 Veterans Way NW. The 4th Street SW building was demolished and is now the site of the Sheldon M. Chumir Centre.

The RGH, on the shores of the Glenmore Reservoir, opened in October of 1966 as a 200-bed facility for surgery.¹⁴ As of 2018, it had 615 beds¹⁵ providing medical and surgical services to Calgary and Southern Alberta. The RGH is the site of the Southern Alberta Institute of Urology, which is supported by a \$10-million donation by Daryl (Doc) Seaman and W. Brett Wilson.¹⁶

Calgary General Hospital: The CGH opened as the Cottage Hospital on the corner of 7th Street and 7th Avenue SW in November 1890.¹⁷ It moved in 1895 to 12th Avenue and 6th Street SE (just north of the present Stampede grounds) before relocating in 1910 to Centre Avenue SE in the Bridgeland-Riverside neighbourhood north of the Bow River. Rebuilding, renovations, and additional construction eventually led to an approximately 960-bed facility. The hospital had a number of outstanding clinical programs, including a rheumatic disease unit and trauma service.¹⁸ The CGH School of Nursing opened in 1895 when the first “probationer” was admitted and closed in 1974 after a total of 2,940 graduates.¹⁹ In 1940 the Board of Trustees of the CGH agreed to take

on interns.²⁰ The hospital played an important national role in the development of family medicine training.²¹ When the PLC opened in 1988, the Centre Avenue facility was renamed the Bow Valley Centre (BVC) of the CGH.²² The BVC closed in April 1997; the building was imploded in 1998. The PLC remains open in the northeast quadrant of the city as a 522-bed facility.²³

Foothills Medical Centre: The NW facility opened in June 1966 with 766 beds.²⁴ There was a nurses' residence, a school of nursing (which was open from 1965 till 1995 and graduated approximately 2,500 nurses),²⁵ and a power plant on the site at the time of its opening. Over the years, additional university (Health Sciences Centre, Heritage Medical Research Building, Health Research Innovation Centre, Teaching, Research, and Wellness) and health-care (South Tower, Special Services Building, Tom Baker Cancer Centre, J. R. (Bud) McCaig Tower) buildings have been added. At 1,081 beds,²⁶ the FMC is the largest hospital in the province and provides comprehensive specialized medical and surgical services to Calgary and Southern Alberta. The FMC was identified early on as the primary hospital site for medical training in Calgary.²⁷

Salvation Army Grace Hospital: In 1924 The Salvation Army bought the former Bishop Pinkham College on 8th Avenue and 13th Street NW to establish a maternity hospital; the facility opened in 1926. While the focus was initially on unwed mothers, married women soon sought admission because of the quality of the care provided.

Additions and renovations over the years led to a 100-bed facility offering a range of women's health programs. During its existence, Salvation Army officers served on the Board of Directors while the executive director was always a member of the Salvation Army. In the mid 1990s the hospital closed with maternity care and the Women's Health Resource Program transferred to the Foot-hills site.²⁸ The site became a private surgical facility for knee and hip replacements until 2010.²⁹ It is now home of the Riley Park Health Centre, with the Salvation Army Agapé Hospice in a neighbouring building.

South Health Campus: Located at 4448 Front Street SE, the SHC opened after the period described in this history of the Cumming School of Medicine. Construction began in 2007, with the first phase, built at a cost of \$1.3 billion, opening in September 2012.³⁰ It currently has 272 in-patient beds and a variety of ambulatory programs.³¹

worried about a “manpower drain” in emergency medicine for Calgary; indeed, he noted that he was himself leaving the province for Saudi Arabia.¹⁰⁶ Notwithstanding these concerns, however, the migration of physicians out of the country had relatively little effect on the overall physician-population ratio in Canada between 1993 and 2000.¹⁰⁷ As seen in table 1, the overall number of physicians in Alberta changed little during these years.

The major physician-distribution issue that Alberta faced during the 1990s was the recruitment and retention of physicians in rural and remote communities. In 1991–2, the Rural Physician Action Plan (RPAP) was launched to address this issue. This comprehensive program included initiatives directed at modifying the undergraduate and postgraduate medical education experience, so it would encourage trainees to locate in a rural community, addressing the professional issues of practicing family physicians and helping rural communities identify and meet their physician resource needs.¹⁰⁸ From its inception, the RPAP was strongly supported by the U of C Faculty of Medicine. A 1996 evaluation concluded that, notwithstanding the dramatic changes that had taken place in the health-care system since its inception, the RPAP had succeeded in stabilizing the overall level of physicians in rural Alberta.¹⁰⁹ The Government of Alberta has continued to support the RPAP over the years and has expanded its mandate to also consider non-physician training. It has been renamed the Rural Health Professions Action Plan (RHPAP) to reflect this.¹¹⁰

In Canada, only the U of C and McMaster offer three-year curricula. At Calgary this was not done by cramming four years' worth of material into three years by teaching on Saturdays or during evening sessions. The school year, though, is longer than in four-year programs, which means the total weeks of instruction are not dissimilar. The duration of the undergraduate medical program at the U of C in 1993 was 136 weeks over the three years, compared to 144 weeks over four years for a student at the U of A.¹¹¹ Other features that distinguished the U of C medical curriculum included early contact with patients, emphasis on clinical problem-solving, co-operative small group learning, self-directed learning and independent study, an interdisciplinary organization, explicit training in communication skills, early use of standardized patients, inclusion of training about the impact of cultural issues on the provision of health, and a non-competitive (pass/fail) evaluation system.¹¹² Research indicates that Calgary graduates perform as well as those from four-year programs at other Canadian schools.¹¹³ However, the relative advantages and disadvantages of a three-year curriculum remain the subject of debate.¹¹⁴

The MD course underwent a major renewal with the creation and launch of the clinical presentation (CP) curriculum during the Smith deanship.¹¹⁵ Its development was led by Dr. Henry Mandin, then associate dean of undergraduate medical education. First offered to the incoming first-year class in 1994, it represented a change from the body-system format utilized since the faculty's founding. It was built around the premise

that there is a finite number (initially estimated to be about 120) of CPs (defined as a common and important way in which patients present to a physician). Material created for the faculty's first clerkship class and a draft of the objectives for the qualifying examination of the MCC (which referred to CPs as "presenting features") were used to create an initial list that was refined by faculty. Local experts in specific clinical presentations were then approached to develop terminal objectives for each selected CP. What the student had to learn was organized according to expert-derived "schemes," which provided both scaffolding to integrate material and an approach to the diagnosis of these presentations. Other schools showed interest in the CP model, with a number adopting it.¹¹⁶ Despite efforts to evaluate the impact of the CP curriculum on specific aspects of medical-student learning,¹¹⁷ it remains unclear whether it is more effective than other curricular approaches. Most of the variation seen on national test performance arises from inter-individual differences among students, with only small contributions attributable to the schools themselves. Little is explained by differences in curriculum or educational policies.¹¹⁸ As D. R. Ripkey and D. B. Swanson wrote, a specific "curricular approach may be less important than the quality of the curriculum implementation."¹¹⁹

The May 1997 "From the Dean" column noted that the change to the CP curriculum was now complete. Representatives from the University of Florida had recently visited Calgary and they were planning to implement a similar curriculum at

their school. Dean Smith recognized Dr. Henry Mandin for his contributions to the CP approach.¹²⁰ Dr. Mandin has also received national and international recognition for his contributions to medical education, including the Duncan Graham Award from the RCPSC in 2011, which honours individuals for outstanding long-term contributions to medical education. Four other Duncan Graham Award winners from the U of C are former Dean M. Watanabe (1994), Dr. A. Keith W. Brownell (2002), Dr. I. John Parboosingh (2008), and Dr. Rachel Ellaway (2019). In 2001 the University of East Anglia (UEA) conferred on Dr. Mandin an honorary doctor of science degree in recognition of his role in advising the UEA on its successful bid for the formation of a medical school.

The medical expert objectives for the MCC's qualifying examination are now primarily structured around CPs. Drs. Mandin and J. S. Baumber of the Faculty of Medicine led in their initial creation and subsequent refinement.¹²¹ Dr. Baumber was a founding member of the U of C faculty. Born in England, he received an undergraduate degree in zoology from Nottingham University, followed by an MSc and a PhD from Queen's University in Kingston, Ontario. He held numerous administrative positions within the U of C, including assistant dean of admissions and student affairs, associate dean of undergraduate medical education, and director of the Office of Medical Education. Dr. Baumber was president of the MCC for 1992–3 and first editor of objectives for the MCC's qualifying examination. In 2000, he received the

MCC's Dr. Louis Levasseur Award (given annually to an individual who has contributed in an extraordinary manner to the MCC), and in 2009 the Order of the University of Calgary.¹²²

With Gerald M. McDougall, John A. Toews, and Jocelyn Lockyer, Dr. John Parboosingh contributed to Calgary becoming a “powerhouse in CME” known for its innovative approach and extensive research program.¹²³ Dr. Parboosingh moved to Ottawa in 1993 as first associate director of the Royal College's Office of Fellowship Affairs, and then the first director of its Office of Professional Development (1998–2002). He provided leadership to both the voluntary Maintenance of Competence project (MOCOMP) from 1993 to 1999 and the mandatory Maintenance of Certification (MOC) program that replaced it.¹²⁴ The MOCOMP was awarded the 1996 continuing professional education Award of Excellence by the American Association of Adult and Continuing Education.¹²⁵

Dr. A. Keith Brownell received his MD degree from Queen's University and was subsequently certified in neurology by the RCPSC. He joined the U of C Faculty of Medicine in 1975. Key educational positions he has held include program director for internal medicine (1979–85) and neurology (1986–8), associate dean for graduate clinical education (1988–97), chair of the Evaluation Committee of the RCPSC, chair of the Association of Canadian Medical Colleges' Postgraduate Medical Education Committee (1993–5), member of the RCPSC Committee on Postgraduate Medical Education, co-chair of the Professional Role

Task Force for the CanMEDS 2000 project, and chair of the CanMEDS Implementation Subcommittee (1996–8).¹²⁶ Developed between 1993 and 1996, the CanMEDS competency framework was initially to structure specialist physician training in Canada but is now embedded throughout medical training and used in over sixteen countries.¹²⁷ In 1997, during Brownell's term as associate dean for graduate clinical education, review teams from the RCPSC and the College of Family Physicians of Canada examined the twenty-eight residency programs offered by the U of C faculty. Notwithstanding the decline in government funding and changes in infrastructure described earlier in this chapter, the review teams left impressed with the overall quality of residency training offered in Calgary.¹²⁸

In April of 1994, the College of Physicians and Surgeons of Alberta announced plans for a re-evaluation system for practicing physicians.¹²⁹ A year later the Physician Performance Advisory Committee was established to determine the process that would be used to evaluate physician performance. This led to the Physician Achievement Review (PAR) program, which was implemented in 1999. Much of development and piloting work for this project was done at the U of C.¹³⁰ In 2004, the PAR Instrument Development and Assessment Team won the MCC's Outstanding Achievement Award in the Evaluation of Clinical Competence.

International medical education initiatives have a long history at the U of C, with formal involvement in Nepal dating back to 1980.¹³¹ Subsequent agreements were developed with schools

in China, Japan, Korea, Thailand, and the Philippines.¹³² In addition to offering training opportunities in Alberta, faculty from Calgary would spend time in these countries to assist in the training of professionals equipped to deal with the health-care needs of local populations.¹³³ In January of 1994, Clarence Guenter was appointed director of the faculty's International Medical Exchange Program.¹³⁴ In this capacity, he initiated collaborations with the National University of Laos and the Ateneo de Zamboanga University School of Medicine in the Philippines.¹³⁵ International medical education was, moreover, a two-way street, with many Calgary students and postgraduate trainees benefiting from electives in other countries that enriched their education.

Other educational accomplishments from these years would include the launch of the Health Knowledge Network (an early electronic database providing widespread access to the medical literature jointly offered by the U of C and U of A with funding from the AHFMR), and the official opening of the Medical Skills Centre.¹³⁶ In early 1996, the FC approved a BA and BSc program in health and society.¹³⁷ This evolved into the Bachelor of Health Sciences program (described in subsequent chapters).

Research Accomplishments

From its founding the faculty emphasized multi- and interdisciplinary research activities.¹³⁸ Rather than departments, research groups with common research interests were assigned designated office

and laboratory space. It was hoped that organizing research on this basis would foster interactions between researchers of diverse backgrounds and stimulate a diversification of approaches to various research problems. As Dr. Grant Gall explained, “Research here blends different types of scientists in common areas of interest. The intent is to bring together people with similar interests but largely different backgrounds.”¹³⁹ Dr. Sam Weiss viewed this as a “refreshing” feature distinguishing Calgary’s medical school from other department-based faculties. Though most of the active members of research groups were basic scientists, Dr. Weiss emphasized the importance of a structure that facilitated collaborative interactions between basic and clinical researchers as the most promising way of speeding up advancements in the development of therapeutics.¹⁴⁰ This approach was recognized as a unique feature of the U of C faculty, one that anticipated later national interest in the promotion of interdisciplinary health research.¹⁴¹ During the Smith deanship eighteen research groups were active, as shown in table 3.¹⁴²

Table 3: University of Calgary research groups, 1992-7

Behavioural Sciences
Cardiovascular
Cell Regulation (disbanded in November of 1996)
Endocrine
Gastrointestinal
Health Care
Immunological Sciences (name changed to Immunology in September 1994)
Infectious Diseases
Joint Injury and Arthritis
Julia McFarlane Diabetes Research Centre
Medical Education
Medical Genetics
Molecular and Developmental Biology
Neuroscience
Oncology (name changed to Cancer Biology in March 1993)
Reproductive Medicine (disbanded February 1994)
Respiratory
Smooth Muscle (approved March 1993)

The McCaig Centre for Joint Injury and Arthritis Research (now called the McCaig Institute for Bone and Joint Health) represented an evolution of this organizational structure, one that foreshadowed the faculty-based institutes created during Dean Gall's tenure (1997–2007). Its origins date back to the late 1970s, when orthopedic resident Dr. Cy Frank and engineer Dr. Nigel Shrive began working together on a research project. They pulled in others, such as Dr. David Hart, as their interests evolved. This band of researchers grew and coalesced over time. They first became the Musculoskeletal (MSK) and then the Joint Injury and Arthritis Research Group. A vision for an expanded integrated multidisciplinary research program focusing on MSK conditions developed. At this point Bud McCaig became involved. Under his leadership and that of Richard Haskayne a successful fundraising campaign called Project Motion raised the necessary funds. The centre opened in the spring of 1992.¹⁴³ Its goal was to become a multidisciplinary, city- and region-wide hub that linked researchers and clinicians involved in all aspects of human movement. Additional funding for the centre was raised through the Partners in Health campaign.¹⁴⁴

A paper authored by Brent Reynolds, then a PhD student, and Sam Weiss, published in early 1992, became the most-cited paper originating from the U of C of this era (see table 4 below).¹⁴⁵ It described the successful isolation of stem cells in the adult mammalian central nervous system, suggested that neural development continues throughout the lifetime of adult mammals, and

raised the possibility that these stem cells could be used to repair neural damage. Reynolds and Weiss co-founded a company based on this discovery.¹⁴⁶ Work is continuing to translate stem-cell technology to effective clinical treatments.¹⁴⁷

Dr. Sam Weiss has a long association with the U of C. He first came as a student and received his PhD in neurobiology from the institution. Between 1983 and 1988, he held two postdoctoral fellowships at the Centre de Pharmacologie-Endocrinologie in Montpellier, France, and at the University of Vermont College of Medicine; these were funded by the AHFMR and the MRC. During this time, he and Fritz Sladeczek of the French Institute of Health and Medical Research discovered the metabotropic glutamate receptor. Dr. Weiss returned to the U of C as a faculty member in 1988, where he continued his work as a researcher. He made several other important contributions to the school, including as the inaugural director of the Hotchkiss Brain Institute. In 2008, Dr. Weiss was awarded the Gairdner Foundation International Award, which is given annually for outstanding discoveries or contributions to medical science. In 2017 he was appointed as the scientific director of the Canadian Institutes of Health Research (CIHR) Institute of Neurosciences, Mental Health, and Addiction. CIHR is the major federal agency responsible for funding health and medical research in Canada and is the successor of the Medical Research Council of Canada.

Important clinical and health service research activities were also launched during the Smith deanship. In 1995 a group led by Dr. Merrill

Table 4: 15 most-cited papers (300+ citations) published between 1992 and 1997 with lead and/or senior author member of the U of C Faculty of Medicine (Source: Google Scholar, 21 October 2018)

1. Reynolds, B. A., S. Weiss. "Generation of Neurons and Astrocytes from Isolated Cells of the Adults Mammalian Central Nervous System." *Science* 255 (1992): 1707-10. (6,348 citations)
2. Reynolds, B. A., W. Tetzlaff, and S. Weiss. "A Multipotent EGF-Responsive Striatal Embryonic Progenitor Cell Produces Neurons and Astrocytes." *J Neurosci* 12 (1992): 4565-74. (1,762 citations)
3. Hendzel, M. J., et al. "Mitosis-Specific Phosphorylation of Histone H3 Initiates Primarily within Pericentromeric Heterochromatin during G2 and Spreads in an Ordered Fashion Coincident with Mitotic Chromosome Condensation." *Chromosoma* 106 (1997): 348-60. (1,650 citations)
4. Weiss S., et al.: "Multipotent CNS Stem Cells Are Present in the Adult Mammalian Spinal Cord and Ventricular Neuraxis." *J Neurosci* 16 (1996): 7599-609. (1,377 citations)
5. Hull, R. D., et al. "Subcutaneous Low-Molecular-Weight Heparin Compared with Continuous Intravenous Heparin in the Treatment of Proximal-Vein Thrombosis." *N Engl J Med* 326 (1992): 975-82. (935 citations)
6. Wallace, J. L. "Nonsteroidal Anti-inflammatory Drugs and Gastroenteropathy: The Second Hundred Years." *Gastroenterology* 112 (1997): 1000-16. (715 citations)
7. Weiss S., et al. "Is there a Neural Stem Cell in the Mammalian Forebrain?" *Trends Neurosci* 19 (1996): 387-93. (684 citations)
8. Paterson, A. H., et al. "Double-Blind Controlled Trial of Oral Clodronate in Patients with Bone Metastases from Breast Cancer." *J Clin Oncol* 11 (1993): 59-65. (653 citations)
9. Hull, R., et al. "A Comparison of Subcutaneous Low-Molecular-Weight Heparin with Warfarin Sodium for Prophylaxis against Deep-Vein Thrombosis after Hip or Knee Implantation." *N Engl J Med* 329 (1993): 1370-76. (562 citations)
10. Leco, K. J., et al. "Tissue Inhibitor of Metalloproteinases-3 (TIMP-3) is an Extracellular Matrix-Associated Protein with a Distinctive Pattern of Expression in Mouse Cells and Tissues." *J Biol Chem* 269 (1994): 9352-60. (557 citations)
11. Hii, J. T., et al. "Precordial QT Interval Dispersion as a Marker of Torsade de Pointes. Disparate Effects of Class Ia Antiarrhythmic Drugs and Amiodarone." *Circulation* 86 (1992): 1376-82. (523 citations)
12. Flemons, W. W., W. A. Whitelaw, R. Brant, and J. E. Remmers. "Likelihood Ratios for a Sleep Apnea Clinical Prediction Rule." *Am J Respir Crit Care Med* 150 (1994): 1279-85. (489 citations)
13. Gaboury, J., et al. "Nitric Oxide Prevents Leucocyte Adherence: Role of Superoxide." *Am J Physiol Heart Circ Physiol* 265 (1993): H862-7. (484 citations)
14. Eby, E. M., D. B. Hogan, and I. M. Parhad. "Cognitive Impairment in the Nondemented Elderly. Results from the Canadian Study of Health and Aging." *Arch Neurol* 52 (1995): 612-9. (409 citations)
15. Hull, R. D., et al. "A Noninvasive Strategy for the Treatment of Patients with Suspected Pulmonary Embolism." *Arch Intern Med* 154 (1994): 289-97. (393 citations)

Knudtson established the Alberta Provincial Project for Outcomes Assessments in Coronary Heart Disease (APPROACH), which aimed to track the long-term outcomes of patients undergoing cardiac catheterization in Alberta.¹⁴⁸ Since its inception, the project has expanded geographically and has been used for a variety of purposes. In 2010, it was recognized with a CIHR/*Canadian Medical Association Journal* Top Canadian Achievement in Health Research Award.¹⁴⁹

Alastair Buchan was appointed Heart and Stroke Foundation Professor in Stroke Research in late 1995. Concurrently a stroke unit was established at the Foothills Hospital.¹⁵⁰ During his ten years in Calgary Buchan established a comprehensive regional stroke service and active research program. For his contributions to the field, the U of C awarded him an honorary degree in May 2009. Under Buchan's guidance the Calgary Stroke Program has evolved into a world-class training site, a hub for dynamic multidisciplinary research, and a fully integrated clinical centre that provides exemplary clinical care. The program won a 2011 CIHR/*Canadian Medical Association Journal* Top Canadian Achievement in Health Research Award.¹⁵¹

Other nationally recognized research programs at the U of C during the 1990s includes the work of Garnette Sutherland (who joined the U of C faculty in 1993) in neurosurgery; Marvin Fritzler's development of biomarkers and diagnostic assays for autoimmune disease; and Russell Hull's work on therapies for venous thrombosis.¹⁵²

From 1992 to 1997, the faculty provided graduate science training to hundreds of master's and doctoral students as well as postdoctoral trainees (an exhaustive list of the latter group for this time period is not available). There was a brisk growth in the number of master's students over these years, but little change in the number of doctoral candidates (see table 2)—possibly related to the dramatic contraction in the AHFMR's support for students, fellows, and new investigators during the early 1990s.¹⁵³ A reflection of the challenging environment facing graduate science students at that time was seen in the results of a 1991–2 study of stress among medical students, residents, and graduate science trainees done at the U of C. The highest levels were found among graduate science students.¹⁵⁴

Clinician scientists are key contributors to medical research. To support their training and create physician leaders for the twenty-first century, the faculty launched the Leaders in Medicine program in 1993–4, with the first trainee admitted in 1996.¹⁵⁵ The program initially was quite small, but since 2000 enrolment has grown substantially, to approximately sixty active joint-degree students (e.g., MD/MSc, MD/PhD, MD/MBA) and the same number of active affiliate members (affiliation is open to all medical students; affiliates are invited to attend Leaders in Medicine activities).¹⁵⁶

The U of C faculty's research expenditures increased by 22 per cent (15 per cent if corrected for inflation) between 1992 and 1997 (see table 2). Its ninth-place rank among Canadian medical schools for research expenditures did not change during these years.

Recognizing Collective and Individual Accomplishments

The faculty celebrated its twenty-fifth anniversary in October 1995. Since 1970 it had produced more than 1,450 MD graduates, and in 1994 the U of C scored in the top five Canadian medical schools on the MCC examinations. Graduates reported high levels of satisfaction with the training they received.¹⁵⁷ The November 1995 issue of *The Bulletin* noted a number of anniversary events, including the inaugural Watanabe Lectureship given by Dr. Arnold S. Relman (editor-in-chief emeritus of the *New England Journal of Medicine*).¹⁵⁸ At the time the faculty had six funded lectureships recognizing current or former faculty members (namely, Church, Drummond, Fowlow, Kovitz, Parhad, and Watanabe).

On 19 October 1994 Dr. T. Douglas Kinsella (1932–2004) was named a member of the Order of Canada for his work in medical bioethics; he was formally invested on 3 May 1995.¹⁵⁹ Dr. Kinsella had joined the U of C faculty in 1975 and helped establish the Division of Rheumatology. He was the assistant dean (medical bioethics) from 1984 to 1992, director of the Office of Medical Bioethics (1993–8), and he played an important role in the founding of the Conjoint Health Research Ethics Board. With faculty colleagues, he developed models for training in clinical ethics.¹⁶⁰ Dr. Kinsella was a founding member and the first president of the National Council on Bioethics in Human Research (now known as the National Council on Ethics in Human Research) and served as a member of the

Tri-Council Working Group on Ethics that produced the Code of Ethical Conduct for Research Involving Humans (1997). A particularly contentious issue during the 1990s was the right to die with dignity. In a well-publicized case from September 1993, the Supreme Court of Canada turned down the request of Sue Rodriguez, a woman suffering from amyotrophic lateral sclerosis, to overturn the Criminal Code of Canada's prohibition against assisted suicide (Rodriguez took her own life with the assistance of an anonymous physician on 12 February 1994). With Dr. Marja J. Verhoef, also of the U of C faculty, Dr. Kinsella co-authored a series of important papers analyzing the opinions of Alberta physicians on assisted suicide and euthanasia.¹⁶¹

Several chairs and professorships were established between 1992 and 1997. In November of 1994, Dr. John Wallace was named as first holder of the Crohn's and Colitis Foundation of Canada Chair for Intestinal Disease Research.¹⁶² Merck Frosst donated funds for the Merck Frosst Professorship in Cardiovascular Research, to which Dr. Henk E. D. J. ter Keurs was appointed.¹⁶³ Contributions from Associated Medical Services (then known as the Jason A. Hannah Foundation) and the Alberta Medical Foundation (AMF) permitted the creation of the AMF/Hannah Endowment Fund for Medical History in 1995. The long-term goal was a funded faculty position in the history of medicine, which was realized with Dr. Peter Cruse's appointment as the Alberta Medical Foundation/Associated Medical Services Affiliate Professor in the History of Medicine.¹⁶⁴

In 1997 a dedication ceremony was held for the renovated Libin Theatre (formerly the Orange Theatre).¹⁶⁵ The theatre was named in honour of Alvin and the late Mona Libin (1930–2006) for their long-standing support of the school and commitment to the community. In 2003 their foundation donated \$15 million toward the establishment of the Libin Cardiovascular Institute of Alberta.

Four striking bronze sculptures of a rock hound, roughneck, switcher, and jug hustler flank the main entrance to the Libin Theatre. They date from the late 1970s, when Roy H. Allen, of Challenger International Services, and others commissioned noted Western sculptor John Weaver to produce a limited series of sculptures dealing with the oil industry. Revenue from this series, along with matching funds from the provincial government, established the U of C medical faculty's Roy Allen Sight Research Fund, which supported the development of ophthalmology in Southern Alberta. In 1983, Roy and his wife donated the bronzes to the University of Calgary Foundation, which in turn placed them in the Faculty of Medicine to commemorate the Allen family's generous support of eye research.¹⁶⁶

Dean Smith Resigns

In June of 1996 Dean Smith gave a year's notice of his intention to resign the deanship. While he enjoyed the position, Smith wasn't sure his health could stand the pace required for the job. He also noted that his timing "hasn't been good," as his tenure as dean had coincided with a period of

downsizing. Dean Smith said that his resignation was not in protest of the recent health-care cuts, but he did make it clear that he felt the "cuts did come too fast," that health-care workers were "not given enough say," and the faculty wasn't as strong as when he first took over. The combined health and education cuts over Dean Smith's tenure had reduced the faculty's budget by between 25 and 30 per cent leading to slowed growth in academic positions and the loss of support staff; nonetheless, Dean Smith felt that a corner had been turned and that the worst was now over.¹⁶⁷ Being dean of a medical school—especially of this particular school, at this particular time—meets any reasonable criteria for what has been termed an "extreme job."¹⁶⁸ Dealing with a loss of funding is particularly stressful for anyone holding a deanship.¹⁶⁹

Ralph Klein was re-elected premier in March of 1997. The Progressive Conservative Party won over half the popular vote and 63 of the 83 seats in the legislature for its eighth consecutive term. During the campaign, Premier Klein was given credit for keeping his promise to attack the provincial deficit.¹⁷⁰ In his first term, the size of government and scope of provincial services were drastically cut. Health-care spending dropped from \$4.3 billion in 1992–3 to \$3.77 billion in 1995–6. The impact this had on the health workforce is shown above in table 1. The 20.5 per cent decline in the health workforce was not evenly spread across occupations or, as has been noted previously, within professions. In the late 1980s, Alberta had the second-highest ratio of staffed hospital beds to population in Canada; by 1994–5 it had the lowest.¹⁷¹

The changes seen in Calgary mirrored those experienced throughout the province, with the closure of three of the city's seven hospitals and cuts in staff, including a 49 per cent cut in administrative staff, which compounded the challenges of implementing reform within the health-care system.¹⁷² A 1994 *Maclean's* article on the impact of health-care cuts across Canada gives a sense of how this felt for health-care providers in Calgary during this period. The article focused on the Foothills Hospital, which was protected from the full effects of the cuts, as it remained open at full capacity. Rae Corelli, the author, spent four days at the facility talking to administrators, physicians, and staff. Calling it the "most difficult period in this hospital's history," Dr. Bryan, the chief executive officer of the CRHA, talked about the "terrible depression among people in the healthcare industry." The family physician William Hall likewise felt that things were "getting pretty close to the bone. . . . People are starting to wear down because there are fewer of them doing the same amount of work." Seniority-based bumping had led to 300 of the facility's 1,500 full- and part-time nurses changing their jobs over the previous six months.¹⁷³

The Alberta government's decision to keep taxes low and pay down the provincial debt (which was fully paid off in 2005) meant that much-needed spending on health care was delayed, which led to a subsequent effort to catch up. By 2004, the health-care budget had more than doubled, to \$8 billion.¹⁷⁴ The spending cuts of the mid-1990s had surprisingly little long-term impact on the cost of health care in Alberta. While Premier Klein and

his government talked about de-insuring some medical treatments and having people wait longer for minor ones, they were hesitant to act on their own.¹⁷⁵ They pressured the federal government, which never responded, to produce a list of core services considered essential under the Canada Health Act.¹⁷⁶ Hints were also made about penalizing people for unhealthy lifestyles. In September of 1996, for example, Premier Klein received national coverage when he was quoted as saying that 70 per cent of people who use the health-care system are there "because of something they have done to themselves."¹⁷⁷ Dean Smith, in a faculty newsletter that year, tried to make the point that while there were many good reasons to emphasize health promotion and disease prevention, it was not a given that this would lead to lower health-care costs.¹⁷⁸ Unfortunately, this message was misinterpreted. Some thought the dean doubted the value of prevention, and that it would be better to wait "for people to fall sick [before] treating their illness."¹⁷⁹ This engendered several indignant letters in the pages of the *Calgary Herald*.¹⁸⁰

In his last "From the Dean" column Dean Smith reflected on his tumultuous tour of duty, writing that, "I have frequently commented that being Dean of Medicine at the University of Calgary is the best job in the world; however, my timing could have been better."¹⁸¹ He noted the need to downsize and adapt in response to a major decrease in funding. It was necessary, he said, to fight to maintain a core of excellence. New sources of revenue had to be identified, which had led to expending time and energy on the Partners

in Health campaign and community relations in general. On 1 July 1997, pediatrician Grant Gall (1940–2009) took over as dean.

A measure of the trying times the faculty faced is given by the changes in the U of C's standing in *Maclean's* annual rankings of Canadian universities, though it must be noted that these figures refer to the entire university, not the U of C Faculty of Medicine alone. In 1993 the U of C ranked fifth in the medical/doctoral category, but by the next year it had dropped to double digits. Between 1994 and 1997, the university's rankings ranged between ten and thirteen. In 1994, *Maclean's* education editor was quoted as saying that the U of C's "reputation slipped due to declining operational dollars spent per student and fewer funds spent on bursaries and scholarships."¹⁸² As Don Braid, a columnist for the *Herald*, wrote in 1995, "Make no mistake: U of C, once a fine, striving university with grand dreams, is now deeply demoralized and sliding into government-induced decay. . . . The rock-bottom rating is close to the truth."¹⁸³

When asked twenty years later what accomplishments he was particularly proud of, Dean Smith first noted that academic recruitment continued during his tenure, albeit at a slower rate. Examples of individuals enticed to come to the U of C during his years as dean included Drs. Buchan, Sutherland, and Jonathan Lytton.¹⁸⁴ This was possible primarily because of the assistance of the AHFMR. As fewer individuals were being recruited, funds for infrastructure support could be obtained from the AHFMR for those already "in place,"

which helped address an operational deficit in this area that had built up over the years.

Dean Smith was also proud of the ability of the leadership team in the Dean's Office to maintain the institution and retain productive faculty members. Worrying about losing high-profile, productive members kept him awake at night, as there was a danger that losses might snowball if they were allowed to reach a critical threshold. While some individuals were lost, attrition was kept to a minimum. This occurred because of a variety of factors, including the noted support of the AHFMR, the Partners in Health campaign, and other donations (for example, those that allowed the Health Sciences Library to renew periodical subscriptions needed by faculty and students for their work).

A third source of pride was that, notwithstanding the serious challenges it faced, the faculty continued to expand its activities and launch (or participate in) new projects and initiatives. Dean Smith specifically mentioned the Seaman Family Magnetic Resonance Research Centre. Other examples would include the Rural Physician Action Plan, the Physician Achievement Review, the Leaders in Medicine program, and the attention paid to women's issues. Dean Smith also noted the advances made in medical education and highlighted the development of the clinical presentation curriculum and the expansion of the faculty's international partnerships and global activities.¹⁸⁵ The successful accreditation of both the undergraduate medical and graduate clinical education programs during these challenging times was an impressive accomplishment as well.

The cuts undertaken during Dean Smith's tenure did prevent the school from fully achieving its dream of growth and diversification. Regionalization was another difficult challenge, one that placed some specialty fields in jeopardy and contributed, for example, to the departure of several neurosurgeons. The close working relationships and formal agreements developed over the years with institutions like the Foothills and Calgary General Hospitals were lost. The creation of new regional medical bylaws was a difficult process, as initially the CRHA displayed little recognition of the need to support medical education and research.¹⁸⁶ For example, in a 1998 article summarizing the impact of health reform in Calgary, the importance of either medical education or research was not mentioned.¹⁸⁷ Of the hospital closures, Dean Smith viewed the loss of the Bow Valley Centre as particularly difficult because of

its strong medical education programs. Retaining the Children's Hospital and subsequently moving it to the current site in 2006 was, Dean Smith later reported, the "smartest" available option.¹⁸⁸

Dean Smith quickly realized that protecting people and programs, not the bricks-and-mortar buildings themselves, would be the priority of his deanship.¹⁸⁹ As he wrote in 1994, "we have held to the view that it is the health care programs which are important; the programs are delivered by people, not by buildings."¹⁹⁰ Though initially it seemed to many that just surviving was the best that one could hope for, with the benefit of hindsight it is apparent that the resiliency, adaptability, and creativity of the administration, academic faculty, and support staff of the U of C Faculty of Medicine meant that the institution was able to do much more than that.



Donald Grant Gall
MD, FRCPC

The Dean Gall Years, 1997–2007

Frank W. Stahnisch and Robert Lampard

The decade between 1997 and 2007 was a period of continued and very visible growth in undergraduate and graduate education in Canadian faculties of medicine.¹ Those working in the Dean's Office at the U of C Faculty of Medicine during this era also recall the busy pace at which the faculty created its research institutes and constructed new facilities, among many other innovative projects.² Their testimony, and the working papers then circulating in the school of medicine (such as the "Orange Bulletin" comprising the latest curricular and educational news),³ allow for a historical reconstruction of the excitement and challenges behind some of the major events in the faculty and the city of Calgary, and especially the growth and diversification of the Foothills Medical Centre (FMC), during what might be called the Gall era.⁴

Dr. Donald Grant Gall's decade-long deanship was a transformative period for the medical school as well as the university at large. It was, moreover, the start of a decade characterized by many challenges, transformations, and achievements under his leadership. His tenure was marked by a more stable political and economic climate, particularly when compared with the Smith era before it, as the Alberta government recovered from a period of fiscal austerity in the early 1990s.⁵ These conditions made for a better navigable terrain, through which both the dean and the medical faculty manoeuvred more effectively.

Dr. Gall did have a plan of action when he became the dean. His vision focused in part on medical research and an evolving relationship with the Alberta Heritage Foundation for Medical Research (AHFMR). The growth in funding from the AHFMR had already led to a marked increase in researchers and was well-received by all faculty.⁶ It helped Calgary create a larger research profile and emerge as a respectable medical school, one that would receive a much more balanced level of support when compared with the U of A Faculty of Medicine in Edmonton, which had been the only medical faculty in the province since its establishment in 1913. The Gall era was marked by a degree of competition, especially in

the matter of medical students.⁷ Dr. Gall wanted the two Alberta schools to be the same size, a goal he almost achieved—even if that might have been questionable from the standpoint of physician resources for the province overall.

The narrative of those ten years was dominated by major fund-development activities, such as the faculty-wide \$300 million Reach! Campaign. That campaign, which sought to gather external funding support through philanthropic contributions, was the result of the intensive and continuing work of Drs. Johan Hubert (“Hans”) van de Sande and Grant Gall. It further allowed the faculty’s research institutes to begin establishing endowments with the help of many community donations.

Dr. Gall also inherited the continuing challenge of integrating the basic medical sciences into the faculty. A year after the U of C Faculty of Medicine began in 1967,⁸ the Division of Medical Biochemistry was created under the leadership of Dr. Robert Bertram (“Bob”) Church (1937–2019). Originally appointed to the Department of Chemistry, Dr. Church was reappointed to the Department of Biology in the Faculty of Science and the Faculty of Medicine’s early Division of Medical Biochemistry, in 1968. He immediately initiated an MSc graduate education program. It began in 1969 under the aegis of the U of C’s Faculty of Graduate Studies, which brought all graduate programs at the university under its jurisdiction.

The dichotomy of biochemical research and education that began with the formation of the Division of Medical Biochemistry has continued

to this day. The two groups have developed complementary areas of strength: structural and computational biology within the Faculty of Science, and molecular and cellular biology within the U of C Faculty of Medicine.

Biochemist Dr. Gordon Henry Dixon (1930–2016) took over leadership of the department in 1983 and was succeeded, in 1988, by Dr. Hans van de Sande. During van de Sande’s tenure as department head, the membership of the department grew to twenty-seven faculty members. In 1992, the medical sciences graduate program devolved into seven parallel programs, one of which—biochemistry and molecular biology—aligned with the department. The biochemistry and molecular biology graduate program have since grown and flourished, gaining a reputation for scientific excellence. Hans van de Sande left his position as head of the department in 1997 to assume the role of associate dean in the U of C Faculty of Medicine. Henceforth, it was one of his main personal achievements to successfully plan and facilitate the major fund-development and endowment activities, such as the above-mentioned faculty-wide Reach! Campaign.

After the U of C Faculty of Medicine had begun to create its seven research institutes in 2004, pursuing other large-scale projects at the same time, it increasingly distanced itself from the direct government funding model on which it had relied. Gall credited the original concept of developing separate institutes to clinical researcher Dr. Cy Frank (1949–2015).⁹

At the same time, the faculty also became an increasingly visible international player through co-operative programs with institutions in Nepal, Tanzania, the Dominican Republic, the Philippines, and several other countries.¹⁰ The dynamism of the Gall era was further displayed in new programs augmenting existing education programs and continued medical teaching activities. The bachelor of health sciences program, along with the veterinary medicine school, which developed into its own faculty, are lasting monuments to these years.¹¹

Dr. Gall began his deanship directly after Eldon Smith, when the search committee—with the input and advice of the Faculty Council (FC)—decided to appoint another clinician from within the faculty, making Dr. Gall the second pediatrician to become dean, following Dr. Cochrane. When he came into office on 1 July 1997,¹² Dr. Gall became the leader of an increasingly larger faculty that had turned the previous teaching-focused medical school, with its mandate for producing family physicians in a three-year program, into a more research-minded faculty supported by the increasing number of basic medical science and clinical research programs on the Foothills medical campus.¹³

Faculty members' memories of Dr. Gall emphasize that he was a dynamic visionary; yet he could also be polarizing as well.¹⁴ His colleagues variously praised, disliked, or even feared him, though most agreed that the decade of Gall's leadership was one of tremendous growth and

wide achievement for the U of C Faculty of Medicine overall.¹⁵

Gall's previous administrative positions prepared him to serve as dean of the U of C Faculty of Medicine. His medical leadership and administrative styles were thought by many to be noticeably different from his predecessors at the time. As one of his colleagues later recalled,

[Dr. Gall] didn't tolerate nonsense. . . .
[He] was a very straight shooter. . . .
[He] likes to see that he has given you a position, and he doesn't really do micro-management. He would say, "These are the goals of what [your] programs are. You achieve it." He would not come and point fingers and say, "Do this and do that," but he would like to see results, and if he sees the results, he is happy with it. That was his style. Lots of people don't like that. They like diplomacy, and, "Oh you are doing a great job," but Grant Gall was never like that. . . .
[He] would tell you to your face, and I saw that with some of the faculty members, they didn't like that. Somebody telling them, "Sorry, you are not performing." That becomes an issue. But I knew that, this was the way he likes things.¹⁶

As we shall see, Dr. Gall's leadership corresponded with a time of drastic changes on the institutional,

political, and economic levels, which may partially account for the certitude and sometimes brusqueness with which he defended and executed the decisions he and his team had made.¹⁷

Education, Internationalization, and Physical Expansion at the Faculty of Medicine

Dr. Gall had previously been associate dean (research) under deans Watanabe and Smith from 1989 to 1993, and the director of pediatrics (1993–7) under Dr. Smith. As such, he was well acquainted with the constraints and challenges faced by the faculty's educational programs.¹⁸ His decade-long deanship, though, needs to be put into a wider context of North American medical education during the second half of the twentieth century. Deans at medical institutions in Canada and the United States mostly had shorter terms and therefore were often unable to pursue more long-term projects. Dr. Gall's decade as dean was exceptionally fortuitous in its timing. Provincial oil revenues increased substantially, and one-time funding requests, particularly capital requests to the Alberta government, were remarkably successful. He and his team made the most of this situation; in this they were also aided by the fact that Dr. Gall's tenure as dean was the second-longest in the faculty's history to date.¹⁹

One hallmark of Dr. Gall's time was initiating the O'Brien Centre for the Bachelor of Health Sciences.²⁰ The faculty's second undergraduate

program received its official approval on 7 May 2002. The program was underpinned by a \$5 million donation from the O'Brien family, which created the eponymous centre and endowed it with scholarships. The centre and program were modelled after a similar one at Queen's University in Kingston. As a former vice dean noted,

(the establishment of) a pre-med track created some controversy. It did create a source for future MD and future post-graduate students. There were certainly fears [for example in kinesiology] that the program would take the cream of the crop.

Reciprocally, the O'Brien program gave PhDs more of an opportunity to teach. It was instituted at a time when Heritage dollars were diminishing. Starting a new program did give the university another reason for requesting more funding. It did get the faculty some financial assistance to help the program. There still tended to be a distinction in the minds of the faculty that you either taught or you did research.

The O'Brien program has been successful. Many students have gone on to participate in international projects.²¹

The O'Brien Centre for the Bachelor of Health Sciences was officially opened three years after its previous administrative approval, and the first

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International Health Program

Dr. Melville Kerr brought the International Health program (IHP) to the faculty of medicine, when he arrived from Edinburgh in 1977.¹ He had just spent four months assessing the feasibility for a new medical school at Tribhuvan University in Kathmandu, Nepal, for the World Health Organization. His approach was to foster learning over teaching, and respond to requests from the host institution but not impose specific direction in development of the local program. As one dean later added, the objective was “for host institutions to express themselves within their own cultural reality—to rise above, given the right support.”²

With the partnership confirmed (1980), Kerr joined Dean McLeod in giving the keynote address at the 10th All-Nepal Medical Conference in early 1981. The relationship was cemented when CIDA granted the U of C \$5.0M to adapt their curriculum to meet the medical needs of rural Nepal, and Calgary philanthropist Kelly Gibson offered to fund faculty exchange travel.³

Dean McLeod set the initial parameters: participation by U of C faculty members was to be voluntary, their medical expertise was needed, temporary backfill in Calgary was available, and there was a passion for the service. Enthusiastically received, the increasing number of faculty visits led to renting “Calgary House” in Kathmandu.⁴

In 1986 Dr. Kerr extended the medical school partnership to Davos on Mindanao island, Philippines.⁵ Positive feedback from these experiences

encouraged many first year medical and bachelor of health students, to choose international electives.⁶

Dr. Clarence Guenter succeeded Dr. Kerr as the Director of the IHP in 1997. His approach was more specific - to focus on identification of the needs of the country, team formation, curriculum standardization, student and program evaluation, as well as continuity, stability, and faculty follow-through.⁷ Requests increased, limited only by funding. By the early 2000s, over 22 international collaborations or partnerships had been approved by the respective deans.⁸ The directorship of the program was elevated to an Associate Dean position in 2003. While all deans supported the program, none did more enthusiastically than Dr. Gall, who personally visited programs from Chile to Iceland and China.⁹

It wasn't just a one way exchange. Unique examples included upgrading 15 Sudanese physicians who had graduated from Cuba. After the Swiss government agreed to fund a medical school upgrading program in Tajikistan, the U of C was invited as long term consultants. Many scholars came for visits. Multidisciplinary research collaborations increased.¹⁰ Eighteen students came and earned PhDs. When the Clinical Presentation curriculum was introduced at the U of C,¹¹ many faculties from Harvard to Holland implemented parts of it because of its clarity and simplicity, by focusing their curriculum on the 120 common patient clinical presentations.

Faculty interest has continued unabated, motivated by a responsibility to give back “because we can help those in need,”¹² and the opportunities to learn so much from and about the global community. A generation of medical students and postgraduate trainees have become involved in health needs abroad. Successful, U of C participants have received awards and honorary degrees, from host and international institutions. But the most impressive impact is the ongoing collaboration that has developed with otherwise isolated teachers and students in many impoverished countries.¹³

class of forty-eight students from the four-year bachelor of health sciences program eventually graduated in 2007.²²

And yet, this growth did not happen without a certain amount of trepidation. As one colleague later recalled,

the physical separation from the university [the main campus] didn't create great problems. Dr. Gall tried to increase the links with kinesiology. While partnerships could be established, mergers were not in the cards. Other faculties, like kinesiology, feared they would be taken over as they were small. . . . There certainly was talk of a VP health science, but that's as far as it went.²³

At the same time a series of major new initiatives were taking place. Specialized research institutes were created in 2004 to refocus and concentrate the research activities of the previous interdisciplinary research groups. The undergraduate medical class was expanded. Together with many other individuals and organizations, Dr. Gall also played an important—arguably a critical—role in the establishment of a U of C Faculty of Veterinary Medicine, separate from the Faculty of Medicine. To this end, he also served on the Dean's Advisory Committee, Faculty of Veterinary Medicine from 2004 to 2008. He was recognized for his contribution to the establishment of this “sister faculty” through the bestowment of a Distinguished

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Health Research and Innovation Centre and Teaching, Research and Wellness Building

The Grant Gall deanship was a period of heightened building activity at the University of Calgary's Faculty of Medicine.¹ Following the establishment of the faculty's first six interdisciplinary research institutes at the in 2004, which concentrated and focused research activities in those areas representing the pre-existing interdisciplinary research groups, a heightened need was also felt for the creation of new institute and laboratory research space.² With the price of oil surging to \$35 per barrel between 1997 and 2000,³ increasing crude oil royalties bolstered provincial budgets and allowed for new capital investment spending on larger infrastructure projects. This decade of prosperity, along with support from the AHFMR, provided the funding to substantially expand the space available at the Health Sciences Centre, for teaching in the undergraduate and graduate programs, along with the planning and construction of two massive new research

buildings: the Health Research and Innovation Centre (HRIC) and the Teaching, Research and Wellness (TRW) Building, to be located at the west end of the Foothills Medical Centre site, facing the Trans-Canada Highway.⁴ It is of particular irony, however, that the original plans for the two buildings were to represent—in concrete architectural form—the medical research concept of a “knowledge translation” conduit, from the clinical building (the first concept for the TRW Building), to its laboratory “wing” (the original concept for the HRIC), or “from bedside to bench and back again.”⁵ The concept harkened back to Dr. Cochrane’s early idea to include a clinical investigation unit in the medical school.

This conceptual view was apparent in the original names attached to the buildings, which were the “Health Research Investigation Clinic” and the “Translational Research Wing” (some interviewees referred to it also as “Translational Research Wards”). Due to the long distance to the Foothills Hospital, the high building/outfitting costs, and the lack of sufficient interest from private clinics and pharmaceutical research units, the original concept for the two buildings was partly abandoned. In good Canadian tradition, the original planning acronyms for the HRIC and the TRW Building (as we know them today) were kept.⁶ In addition, finding the financial support to complete the buildings and outfit the laboratories and departments turned into a constant struggle for the senior leaders of the faculty. Another obstacle was the unkept promise of a contribution from the Medical Research Council (MRC), leaving space for other departments, such as

the Department of Community Health Sciences, which was originally not one of the planned occupants.⁷ Eventually, because of the special security conditions required for the subterranean laboratory floors (i.e., for animal stalls and genetic laboratories), as well as air-conditioning, safety, and hygienic factors, costs mounted to a staggering \$500 million for both the HRIC and the TRW Building.⁸

The new buildings, which had been in the planning stage long before 2007, opened in phases that continued until the summer 2010. The Hotchkiss Institute for Brain Research, which was officially launched in 2010, moved into large parts of the HRIC.⁹ The completion of the laboratories and offices in the HRIC and the TRW Building took even longer. They required space for the wet and dry labs, as well as the latest improvements in medical technology equipment. The outpatient clinics were sized to serve 150,000 patients each year, according to a self-study report conducted by the Faculty in 2007.¹⁰ Now, the TRW hosts the Department of Community Health Sciences (on the third floor), the Mathison Centre for Mental Health Research and Education (first and fourth floors), the Centre for Health Informatics on the fifth floor, and the Dean’s Office (on the seventh or top floor), with its large corner offices overlooking the spectacular Rocky Mountains. Likewise, the administrative offices, some teaching units, and several laboratories of the Faculty of Veterinary Medicine moved into the first and second floors, after Grant Gall’s leadership team facilitated the creation and establishment of the University of Calgary’s youngest faculty in 2005.

Service Award by the Faculty of Veterinary Medicine in June 2008.²⁴ The medical faculty's activities were now also visibly highlighted and promoted through public-relations activities—for example, through the *UCalgary Medicine Magazine*.²⁵

Known as a building dean—or by his colleague's tongue-in-cheek nickname of “Grant the Builder”²⁶—Dr. Gall's name remains linked with the establishment and completion (under his successor, Dean Tom Feasby) of the Teaching, Research, and Wellness Building (TRW) in 2010. The TRW acronym first stood for “Translational Research Wing,” but the name changed in Alberta in 2006 after the Calgary Health Region pulled out of financing the building's development.

The original construction plan had been to integrate clinical and research activities in the Health Research Innovation Centre (HRIC built from 2003 to 2006) with those in the adjacent TRW facility in order to attract and retain medical research talent.²⁷ After an extended period spent planning the TRW building, the plans were, however, cancelled. The U of C assumed full responsibility for it, redesigning it primarily for departmental and administrative purposes, for the Faculties of Medicine and Veterinary Medicine.

Early planning for the building of the McCaig Tower (opened in 2011–12 and located alongside the TRW/HRIC facilities and the Foothills Hospital)—provided surgical services and critical care medicine—also began during Gall's deanship. The same architects who had worked on the TRW Building were retained to develop plans for “the McCaig,” as it became commonly known.

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McCaig Tower

The McCaig Tower of the Foothills Medical Centre (FMC) was officially opened by the Honorable Gene Zwozdesky (1948-2019; Minister, Alberta Health and Wellness), Ken Hughes (Board Chair, Alberta Health Services), and Dr. Peter Jamieson (Medical Director, FMC) on October 12, 2010.¹

The building was to be the first stage of a twenty-year master plan to redevelop and renovate the FMC site. It required careful design work by the architectural firm DIALOG due to the restrictions imposed by the limited available space and existing buildings and roadways. Provincially funded, construction costs totaled \$550 million. The eight-storey building has 60,978 metres squared of internal space that was occupied in a phased manner over a number of years. In the fall of 2010 only one patient care unit, two operating rooms, four day surgery beds and four post-anesthesia beds, an x-ray room, and the central sterile reprocessing department were opened. The Tower now houses a large intensive care unit organized into three pods, eight operating rooms, orthopedic and trauma surgery patient care units, short-stay beds, pathology and laboratory services, and other programs.

A unique feature of the McCaig Tower was the creation of a RAPTOR (Resuscitation with Angiography, Percutaneous Techniques, and Operative Repair) surgical suite (also called ITOR, which stands for Interventional Trauma Operating Room) to deal with trauma patients experiencing uncontrolled haemorrhaging.² Capitalizing on space made available by the construction of the McCaig Tower (two large operating theatres were eventually combined into one in order to allow enough room for surgical and diagnostic imaging teams to simultaneously work on a patient) and the willingness of the Calgary Health Trust to raise the required \$3 million to initially equip it, an interprofessional steering committee informed by human factor analysis directed its development. When opened in 2013 it was the first purpose-designed and built trauma operating room of this nature in the world.³

With birth things also come to an end. Between 2004 and 2009 the Calgary Health Region contracted with Health Resource Centre (HRC), a private surgical facility located in the former Grace Hospital, to perform hip and knee replacements. This was to deal with a backlog of patients requiring these procedures that had grown over the previous decade. The need for this service concluded with the expansion of surgical capacity in the public system after the opening of the McCaig Tower.⁴

The Tower is named in honor of John Robert (Bud) McCaig (1929-2005) who was a Calgary businessman, co-owner of the Flames, and, as described in chapter four “The Dean Smith Years,” the first Chair of the Calgary Regional

Health Authority (1994-1998). As also noted in chapter four, he was heavily engaged in both the Project Motion and Partners in Health campaigns that raised funds for what eventually became the McCaig Institute for Bone and Joint Health. His “tireless advocacy” for this area made naming after him a building that houses orthopedic services frequently engaged in the research activities of the Institute particularly fitting.⁵ His wife Ann served as the eighth Chancellor of The University of Calgary from 1994 to 1998.

The other named part of the building is the Dr. Gregory Powell Helipad. Likewise, this is particularly fitting. While division chief of the FMC emergency department, Powell in 1985 founded the Shock Trauma Air Rescue Society (STARS) to provide local helicopter medical rescue and transport services.⁶ The helipad on the roof of the Tower was named after him in 2015.⁷ STARS, the demolition of the CGH Bow Valley Centre (where Alberta’s first dedicated trauma operating room had been based) in the 1990s, and the leadership of Dr. John B. Kortbeek (Head, Department of Surgery between 2006 and 2016) were all felt to have played important roles in FMC becoming the leading adult trauma centre in southern Alberta.⁸

Nevertheless, as a former colleague in the Dean's Office noted, there could be problems finding the funds to complete and fill these buildings with programs.

It was always a challenge to allocate space and build new structural opportunities for expanding and growing faculties. As many of the buildings were delayed in securing funding, by the time they came around, often much of the vacant space had been filled or called for. Dr. Gall was always "building." The inevitable question was, "How big?" Often, the projected gross and supplementary external revenue sources didn't match expectations. Budgets often didn't reach projections. Medical Research Council of Canada (MRC or after 2000 the CIHR), spending was expected to be a lot more.²⁸

As this observation indicates, the two buildings (the HRIC and the TRW) were constructed as empty shells. Gall and his leadership team expected that there would be more money available from the Alberta government to fill these spaces with laboratories and clinical units. Although he and his team were quite successful in receiving more funding from the provincial government, these payments could unfortunately not keep up with the fast-paced Calgary economy, which was characterized during this period by the soaring inflation of building costs. By the time the provincial government was once again willing to consider offering additional funding, costs had increased even further.

Such funding challenges represented a vicious cycle for the faculty.²⁹ By the time it had convinced the Alberta government to commit to one figure,

costs had increased, and it needed to return, hat in hand. Eventually, other players who had available funding, such as the new veterinary school, stepped in and took over space that the faculty had originally allocated for different purposes. The reality was that the buildings simply could not sit empty, and existing and newly built space was therefore reallocated internally and externally, which led to considerable animosities between individual departments, programs, and the medical and veterinary faculties over the allocation of space.

Dean Gall's building projects were often led by Richard Hawkes, associate dean (graduate sciences education). Hawkes had joined the U of C Department of Anatomy in 1989 and rose to fill several administrative roles in the Faculty of Medicine, the Faculty of Graduate Studies, and the university at large. Trained as an anatomist and cell biologist in London and Oxford in the United Kingdom, his own research interests and accomplishments encompassed the cellular and histological organization and morphology of the cerebellum—particularly working on zebra fish animal models. He was a founding member of the Hotchkiss Brain Institute in 2004 and the Alberta Children's Hospital Research Institute (ACHRI) in 2009. Furthermore, based on his experiences and insights as an accomplished biomedical researcher of international standing, he was chosen for the role of associate dean (research) in Grant Gall's leadership team, where he was particularly associated with the planning and promotion of the major building projects, the establishment of the

veterinary school, the research institutes, and the expansion of the school's research infrastructure (shared uses of laboratory spaces, technology infrastructure access and support, as well as the initial planning for computational big data storage facilities for larger scale research initiatives especially in clinical research programs and public health epidemiology).

Following his successful work with Dean Gall's leadership team, Dr. Hawkes was invited to serve as associate vice-president research to help coordinate the university's strategic research plan and support both inter-faculty research infrastructure initiatives—such as the initial steps leading to the creation of the Institute for Population and Public Health—and inter-university research alliances, including the Campus Alberta Neuroscience initiative. The latter helped to bridge research and educational initiatives in neurology, psychiatry, and mental health between the Universities of Alberta, Calgary, and Lethbridge.³⁰

During his tenure, Dean Gall also concerned himself with several international activities. One was the Sapporo-Calgary exchange program with Hokkaido University in Sapporo, Japan, which served as a model for other international programs of the faculty during these years. On 17 April 1997, the FC passed a further motion indicating that all international students needed to meet the requirements outlined in the September 1996 policy for accepting international medical students. At first, this decision drastically reduced the admission rate of international students into the undergraduate medical education program at the U of C. This

was counterbalanced to a degree by the establishment in 2000 of the Alberta International Medical Graduate (AIMG) program, which assessed medical graduates in Alberta trained outside of Canada and the United States for their suitability for postgraduate training programs at the U of A and the U of C.³¹ Moreover, the educational medical curriculum was modified to include subjects related to global and public health. A cohort of international medical students also remained within the undergraduate medical education program. Dean Gall's interest and achievements in this area were acknowledged by the inauguration of a new faculty award—the Grant Gall Award in International Medicine.³²

As an overtly enthusiastic traveler and ambassador for the faculty, Grant Gall also helped build collaborative international health programs, with institutions as far flung as Chile, Laos, and the Philippines.³³ By 2003 the Faculty of Medicine had consulted with and helped establish international programs in an astonishing twenty-two countries. These initiatives resulted in important health benefits, including preventive programs for people living in these countries, not to mention training experiences for undergraduate medical students and faculty from the U of C. As one former associate dean recalled, Dr. Gall seemed to follow international strategies that reflected his personal preferences, while continuing commitments previously made by the faculty:

The one that comes to mind particularly would be Chile. . . . I went there

with him twice, to Concepción. I think it's gone now, but we had a very nice partnership with the University of Concepción that he had started before he was dean, through his gastroenterology research. We had those from Concepción come here and we would go there, and it was a good relationship. [Dean Gall] used to just love travel, and the more exotic the better.³⁴

Gall's love of exotic and unusual circumstances even extended to how he perceived others. On one occasion a new department head he was trying to recruit attempted to negotiate additional moving expenses; he argued that the relocation would necessitate selling both a lake cottage and an ocean beach house. Gall immediately indicated this was not a problem but after a moment of additional reflection added, "Wow, I've never recruited anybody with three houses."³⁵

Dr. Gall worked tirelessly to develop long-term relationships with the Alberta corporate community, including oil and gas philanthropists.³⁶ To this end, he actively involved them in developing and supporting a plan to build medical and research programs through the Dean's Advisory Council. The HRIC, for example, was established with commitments from private donations amounting to \$129 million and provincial government support in the form of \$94 million.

Other administrative and political challenges during Grant Gall's deanship included activating the Alberta Children's Hospital Foundation

established in 1974 by revising its terms of reference, hiring a full-time director, and initiating its fundraising program. Similarly, he secured donors and private funding to counter the perennial threats from the Alberta government to reduce the faculty's baseline funding—a challenge that never seemed to go away. Further issues included finding space, constructing buildings, and securing and setting up partnerships with other on-campus faculties or clinical departments at the affiliated hospitals.

These activities brought people together and co-operation consequently improved, particularly with the Calgary Regional Health Authority, who had been appointed in 1994. (The name was changed to the Calgary Health Region (CHR) in 2000). The chief executive officer of the CHR (from 1999 to 2008), Jack Davis, was on close terms with Grant Gall,³⁷ yet they did not always get along—perhaps because their personalities and leadership styles were quite alike. The complex relationship between the CHR and the faculty proved at times to be mutually supportive, and other times created deep and bitter conflicts, as Davis lived up to his reputation as a "conservative fiscal manager."³⁸ He implemented massive layoffs during his time as chief executive officer of the CHRA/CHR, particularly in support staff. His decisive actions endangered the continuation of several of the clinical services at the FMC, and secondarily the clinical research programs related to them. This happened to such a degree that outsiders had a hard time identifying where exactly the health region began and ended; the same could be said

of the Faculty of Medicine, which was seen as the “research and education laboratory” of the CHR, which “[used] all their facilities.”³⁹ It required both the U of C and the U of A medical schools to create a new and different relationship with both their local health authorities and the government.⁴⁰ Dr. Gall pointed out that the CHR supported the faculty’s growth and development, which eventually led to an expansion of the entering class from 69 undergraduate students to 125 students by 2007. At the same time the faculty grew from 270 to 500 members, while the total faculty revenue increased to \$240 million, a four-fold increase during the Gall era.⁴¹

The Alberta Children’s Hospital Moves to the U of C campus

After the 17th Avenue site was opened in 1982, it gradually became apparent, as specialty and subspecialty pediatric services were either transferred to it or expanded, that the facility was vastly undersized and needed to be expanded. Over the course of the 1980s and early 1990s, the ACH was therefore transformed into a tertiary-care referral centre for children in Southern Alberta⁴² and ambulatory clinics alone eventually increased to thirty-one. Concurrently the price of oil continued to decline.

In 1993, Albertans elected Premier Ralph Klein on a promise to balance the provincial budget. Dramatic health-care decisions followed. In Calgary, the Holy Cross Hospital (HCH), the

Calgary General Hospital (CGH), and Grace Hospitals were closed. The cuts were still insufficient. In March 1994 the new Calgary Hospital Board retained former deputy premier Lou Hyndman, who recommended the closure of the ACH as well. Large public rallies, protests, and petitions followed.⁴³ HCH, CGH and Grace hospitals were closed. The Foothills Hospital pediatric units were transferred to the ACH in 1982. The ACH budget was reduced by 20%. As this was still not adequate, Price Waterhouse consultants proposed to keep the Foothills, Rockyview, and Peter Lougheed hospital sites open while closing three of the remaining four: Alberta Children’s, Grace, Holy Cross, and/or Bow Valley Centre.⁴⁴ Fortunately, the appointment of Dr. Grant Gall as the professor and head of pediatrics in 1993 had brought a measure of leadership to the uncertain scene. His vision was to keep the ACH concept viable, deflect the closure calls, and then explore a long-term plan for future pediatric care in the city.

While researching the decision to renovate, rebuild, or move to the Foothills Hospital site in the late 1990s, Dr. Gall uncovered a new site on the west end of the U of C campus, overlooking the Bow Valley, a kilometre and a half from the FMC. Approved in 2000, the Lego blocks-inspired structure opened in September 2006. It was Dr. Gall’s first major building project.⁴⁵

The design benefitted significantly from the advice of the patients, parents, and children. Multiple Teen Advisory Group (or TAG) teams were formed to provide input, with participants ranging in age from three to seventeen years. The

teams recommended low windows, maximum use of bright, primary colours, abundant open spaces, a pet bonding area, a separate entrance for kids on chemo, and a large play area.⁴⁶ While the number of beds remained constant at 130, hospital rooms were enlarged to allow families to access live-in accommodations. A pleased Dr. Gall noted how the ACH had already “evolved into a major Centre of Excellence for Child Care in Canada.”⁴⁷

The ACH would be one of the few new pediatric hospitals built in Canada. This was similar, for example, to the Izaak Walton Killam Hospital for Children in Halifax, which would bear the imprint of Dr. Cochrane.

Antecedents to Establishing the U of C Faculty of Veterinary Medicine

Dr. Gall had originally chosen a career in medicine, based on his interests in biology, natural history, and agriculture. On graduation he chose pediatrics and took subspecialty training in gastroenterology and nutrition before initiating his research career. As a researcher he specialized in clinical and basic investigations of gastroenterological diseases such as diarrhoea, mucosal nutrition transport, and infectious pathways in the intestines.⁴⁸

Born in Saskatchewan and raised on a farm northeast of Calgary, Dean Gall was well aware of the importance of veterinarians and the value a provincial school would have if located close to a medical school, where it could maximize the educational and research synergies between the two.

At the time, all the province’s veterinarians were trained in other Canadian centres, the United States, or abroad. Gall therefore strongly advocated for the creation of a faculty of veterinary medicine,⁴⁹ a need amplified by the cases of “Mad Cow Disease” (bovine spongiform encephalopathy) that were found in Alberta in May of 2003.⁵⁰

Dean Gall and colleague Dr. Benedikt Hallgrímsson lobbied hard for the veterinary school by leveraging the pathological concept of zoonosis—the transmission of diseases from animals to humans—as a reason why veterinarians and human health-care specialists should collaborate. As Dr. Hallgrímsson recalled, “the idea was that we would use our institute’s structure [and] we would plug all the vet. med. people into the different institutes and it would be genuinely joined: there would be a Faculty of Veterinary Medicine, but it would be indistinguishable from the Faculty of Medicine except for teaching.”⁵¹

Dr. Gall and his team were successful in securing approval for the school at the U of C over a competing, traditional four-year proposal from the U of A. In the fall of 2004, American veterinary physician and surgeon Dr. Peter Eyre was appointed as the interim dean of the faculty. He had just retired as the dean of the Virginia-Maryland Regional College of Veterinary Medicine. After only a few months, Eyre decided not to move to Calgary and relinquished his position, in part, because he could not find enough agreement and support for the newly planned faculty. He was replaced by Eugene Janzen.⁵²

The U of C Faculty of Veterinary Medicine was officially approved by the provincial government in 2005. It has remained an autonomous faculty despite plans, discussed at the 22 September 2004 FC meeting, to integrate the U of C Faculty of Human and Veterinary Medicine.⁵³ The university subsequently transferred responsibility for the operation of the large-animal research centre at Spy Hill to the new faculty, which used some of its start-up funds to optimize its structure for additional functions, including teaching.⁵⁴

With funding from the Province and the U of C in place, and with subsequent contributions from private donors to fund the first chairs, the Faculty of Veterinary Medicine began its recruitment program. It started by creating its own curriculum along with clinical and research departments. Although some of the early faculty were jointly appointed with the Faculty of Medicine, and vice versa, this was the exception. The degree of integration was less than originally anticipated, as neither of the veterinary school's interim deans nor its inaugural dean, Alastair E. Cribb, fostered that approach, expressing concern that this could create problems for the provisional accreditation of the school before it started with thirty students in 2008.⁵⁵ In the beginning, the faculty were located in scattered places in the Heritage Medical Research Building (HMRB), and later the HRIC and TRW buildings. The faculty now also occupies two floors in the TRW building.

The undergraduate curriculum was organized using the medical faculty's clinical presentation (CP) model, with an introduction to large animals

right from the start. The eleven month per year curriculum extended over two years, similar to the Faculty of Medicine.⁵⁶ Dr. Cochrane would have been excited about the innovative approach taken to design the curriculum, and indeed many leaders in the field came to see the novel approach taken to this end. No separate hospital or clinical facilities were included in the plan. Instead the program drew on local veterinarians, their expertise, and their facilities to design the clinical experiences. Leaders at the Olds and Lethbridge agricultural science colleges were also consulted.⁵⁷ Not only was this approach more economical, but also avoided the building of facilities that competed with the local veterinary community. It also enabled the Calgary school to be started in the same three-year period it took the medical faculty.

The first- and second-year courses were taken in faculty, HSC, and Spy Hill classrooms, while clinical electives, clerkships, and internships were done at approved veterinarian practices and agricultural facilities. The original plan was for a three-year course, but this was extended to four years to give the students more clinical experience, in the form of an internship, before graduating. The "one health" (human, animal, and environment) educational and research philosophy has since gained increasing attraction in the other veterinary faculties in Canada and beyond.⁵⁸

The Bachelor in Science Honours Neuroscience Program

Dean Gall's background, contacts, and the various positions he held at the U of C, contributed to the emergence in 2006 of a plan to create a new bachelor of science honours in neuroscience program within the Faculty of Science. It was developed jointly by the Faculties of Arts, Science, and Medicine.⁵⁹ The toxicologist and neuropharmacologist Sheldon H. Roth was the first lead for the program, which accepted its first undergraduate students in 2008.⁶⁰ On the clinical side, there already were teachers in the Faculty of Medicine affiliated with the long-standing accredited residency training programs in neurosurgery, neurology, and physical medicine and rehabilitation. In 1981 these divisions had been united into the Department of Clinical Neuroscience. All inpatient neuroscience units had been centralized on the FMC site following the closure of the HCH and CGH and the latter's demolition on 4 October 1998.

Outside Perceptions and an Evaluation Dispute

Despite these innovations and diverse achievements, there were also areas of concern after national university comparisons and rankings first appeared in 1997 in *Maclean's*, one of Canada's leading news magazines. It ranked fifteen medical and doctoral universities in the country. While the

U of A was in sixth place, the U of C was ranked thirteenth.⁶¹ This was a blow to the confidence and pride of both faculty and students.

In 1998, for example, an anonymous writer in the *Chronicle of Higher Education* noted that

students from the University of Calgary have blamed cuts in funds from the province for the institution's low ranking. It was rated 12th of the 15 institutions with a medical school and a broad range of research and PhD programs. . . . "There is a direct correlation between the province's slashing of U. of C.'s budget by 23 per cent and the consistent low ranking in recent years," said the president of the Students' Union, Paul Galbraith. He called on the province to reinvest in postsecondary education to make up for cuts imposed in recent years. The university's president, Terry White, argued that the ranking system used by *Maclean's* did not measure some factors that are important to his institution, such as recent breakthroughs in cancer research and the availability of non-traditional learning opportunities, including a weekend program.⁶²

By 2006, twenty-one Canadian universities, including some of the country's leading research universities, had decided to opt out of the *Maclean's*

university rankings altogether.⁶³ Many academics throughout the country viewed this as a very big deal at the time.⁶⁴ The presidents of Simon Fraser, McMaster, Dalhousie, and the Universities of British Columbia, Alberta, Calgary, Lethbridge, Manitoba, Toronto, Ottawa, and Montreal signed an open letter to the editor of the magazine. *Maclean's* university rankings, which competed with the *Globe and Mail's* University Report Card, had certainly become the subject of much discussion. Criticisms of the evaluation procedure culminated in reservations expressed over the methodology used in the university rankings and the overall validity of the tools applied. Despite the negative feedback, Tony Keller, the managing editor of special projects at *Maclean's* said, "This data is all available and we will be publishing it."⁶⁵

Keller's reply, however, did not fully address the concerns held by the university presidents—namely, that *Maclean's* used aggregate data from a range of variables. The magazine, they said, arbitrarily assigned weight to variables that were of questionable validity, doing the students a major disservice.⁶⁶ Of course, *Maclean's* did not give in to the criticisms it received from the eleven research-orientated universities. Undeterred, Mr. Keller stated that the methodology used was sound and valid. "Based on 16 years of experience of doing this at *Maclean's*, on extensive consultation with the universities, and with experts in the field, we came up with a ranking of all the elements that make up quality in a university."⁶⁷ This remarkable incident in the history of Canadian higher education then sort of fizzled. Without further fanfare,

the above-named universities continued their withdrawal for the next two decades, undermining *MacLean's* analysis of the quality of Canadian universities.⁶⁸ It was only in 2016, when Elizabeth Cannon, the new president of the U of C, had also become the chair of the Universities Canada Board, that the U of C took part in *Maclean's* rankings again. This time it scored well above its previous rankings.

The Creation of the Research Institutes and New Unit Structures

The diversification and growth attained by the U of C Faculty of Medicine before and during Dean Gall's tenure are impressive (see appendix 2). This is especially remarkable when one considers that the faculty itself was only a few decades old. The medical school had started out with the primary aim of producing family physicians. Over the years, however, it became more research-oriented, particularly so during the 1980s and '90s, when funding from the AHFMR accelerated this process.⁶⁹ Of particular importance was a \$15 million infrastructure grant offer in 1984 to the U of C Faculty of Medicine from the AHFMR Opportunity Fund, which matched funds for strategic research infrastructure initiatives in the province of Alberta, and became a component of the sources of funding cobbled together for the HMRB building. This was one of many forms by which the AHFMR contributed to the development of the local biomedical research

infrastructure without duplicating research funds that were allocated through national programs.⁷⁰

In February of 1997 the faculty's PGME programs were reviewed by accreditation teams from the RCPSC and CFPC. That year also saw the successful launch of the Leaders in Medicine program. Through this graduate program, medical students could undertake combined degree work, such as an MD/MSc, MD/PhD, or the MD/MBA.⁷¹ Some saw this program as a game changer, since it fostered undergraduate medical students' involvement in broader academic and research-orientated programs.

The further development of the graduate programs was overseen by Pamela A. Sokol in the Dean's Office. She was a professor in the Department of Microbiology and Infectious Diseases in the U of C Faculty of Medicine before serving as associate dean (graduate studies) for two years (1997–9), associate vice-president of research (2000–5), and then vice-dean of the Faculty of Medicine (2005–7), when she succeeded Dr. van de Sande.

The initial priority for the school had been to accept students who wanted to be family doctors.⁷² As the proportion of students taking family practice declined, the Dean's Office again studied the problem to determine why fewer and fewer students were choosing family practice. A plan was then implemented to reverse the trend.⁷³

The diversification of the student body across multiple educational streams—with basic medical and clinical faculty actively teaching in these training programs—changed the culture of the medical

school in Calgary.⁷⁴ In response, the faculty moved away from a relatively flat organizational structure with few departmental boundaries, found at the beginning of its existence, to a more complex one that met the needs of a much larger and diverse institution (see appendices 6 and 7).

The establishment of six (later seven) research institutes under Dean Gall, which were largely based on the pre-existing system-based, interdisciplinary research groups, presented a new structural issue. Since Dean Cochrane had decided that there would be no departments in the faculty, only “divisions,”⁷⁵ the movement of resources and staff under the provincial Universities Act,⁷⁶ could be done on the dean's order. Dean McLeod reversed that decision in 1981, in part because these jointly appointed leaders were already known as clinical department heads within the affiliated hospitals. The subsequent creation of many interdisciplinary or system-based research groups cut across and interlinked many departments.⁷⁷ By the early 2000s, there were seventeen research groups in the faculty that, to a variable degree, integrated basic medical and clinical investigators.

The MRC, which had been encouraging team building since the early 1970s, were giving preferential funding support to interdisciplinary research groups or non-departmentalized research institutes and centres. Inter-departmental research interactions as well as cross-faculty forms of collaboration were already occurring, with some university faculty moving over to the FMC site from the Faculty of Kinesiology. An example of this trend can be seen in the emergence of the

McCaig Bone and Joint program led initially by Dr. Nigel Shrive, who was a professor from the U of C's Schulich School of Engineering. Moreover, the Hotchkiss Brain Institute received strong support from the University of Lethbridge in the areas of behavioural neuroscience and psychology.⁷⁸

Dr. Gall's introduction of a research superstructure, with research institutes having authority over the departments, became a source of frustration in the faculty. Several investigators of the pre-existing interdisciplinary research groups were highly critical of the decision, as it appeared random to them how "winners and losers were picked."⁷⁹ The changes also led to the closure of several existing, and successful, interdisciplinary groups of scientific investigators, such as the mucosal inflammation one in 2006.⁸⁰

Some of these groups were strong enough to push themselves back into the faculty conversation. At one point, for example, it was not even clear that there would be a cardiovascular research institute. Yet the cardiologists emerged as a large and powerful group and they found considerable support from private donors.⁸¹ Some department heads, particularly the clinical department heads, found that the changes adversely affected their ability to recruit new faculty members to fulfill specific clinical roles or provide other required expertise. Prior to this, the department heads had more autonomy, as they controlled the salary lines for vacancies in their departments and most also had some ability to negotiate research start-up packages and allocate laboratory space. However, negotiation and joint decision-making processes

became necessary with the introduction of the new research institutes, with inter-unit conflict at times arising. However, through the implementation of the new research institutes, department heads no longer had control over research space or start-up funds, which were now entirely within the purview of the institutes.⁸² This meant that department heads wanting to recruit research-oriented faculty members could not accomplish this without the help of an institute director who was committed to recruiting that professor. A faculty member who was active during the transition to institutes described the changes as follows:

We had always organized around research groups, of which there was of the order of twenty, and so when I was, for example, for ten years head of anatomy, there was no place called "anatomy," there was no anatomy [department] physically, so all of the members were scattered to different [research groups]. Round about 2000, Cy Frank had this idea that he was pushing for what he called ACMEs, which stands for Academic Centres of Medical Excellence. . . . His vision was to create one of those, which would essentially be the same thing as the McCaig Institute now. This was talked about, but nothing actually was done. Then when Grant became dean, he and Hans van de Sande started the planning towards a big fundraising

campaign, [the] Reach! Campaign, which . . . was a really good partnership with Calgary Health and Jack Davis, who was a close friend of Grant's. . . . They sought advice from all sorts of people about how we sell the faculty, how do we get money. Rightly or wrongly the impression came about that if you have twenty research groups there is a lack of focus. . . . And Grant [was] . . . not a good consultation person. He told me that we were going to have six or seven institutes, this was what they are, and go make it happen.⁸³

It was only through a partnership between a department head and an institute director that salary lines and attractive research packages could be “married” into a winning job offer. This was not a problem for those institutes that were closely linked with a department—for instance, the Libin Cardiovascular Institute and the Department of Cardiac Sciences, or the Hotchkiss Brain Institute and the Departments of Clinical Neurosciences and Psychiatry. However, many “orphan departments” existed that did not have a natural institute partner. Other departments benefited from having potential “fits” within multiple institutes that could be used to their recruiting advantage. Regardless, the model proved complicated, and successful recruitment required co-operation and good institutional behaviour and citizenship. As noted by one department head, after a

few “botched” recruitments, both parties began to embrace the new rules and work together.⁸⁴

In the end, this approach appears to have greatly strengthened the research thrust of the faculty. Before the advent of the research institutes, department heads could manage their recruitment specifically to meet their own departmental needs, but often with a research focus that was not consistent with the larger faculty research needs and frequently with a less-than-optimal start-up package. After the implementation of the institutes, institute directors, who in many instances were better able to assess a potential candidate's ability to succeed in the faculty's research milieu, often served on departmental search committees. This helped the selection committee pick candidates who were well positioned to succeed not only because of appropriate collaborators, but also because the director would commit the required resources and then provide research mentorship to facilitate success. While there has been no quantitative study on the success of the research institute model, qualitative evidence suggests that it has worked, although not all seven institutes have been equally successful.⁸⁵

The research institutes were started at a propitious time (between 2004 and 2009). National funding bodies were emphasizing interdisciplinary research teams and multi-centre co-operation, while opportunities for philanthropic support in the city of Calgary were abundant, in line with the economic upturn of the province's latest oil and gas boom.⁸⁶ Membership in the institutes was voluntary. However, the basic organizational

structure was pre-set by the faculty. Unexpected demands arose, from the need to locate related laboratories close together, to an increase in research and technical personnel. The growing research activity created additional demands for more space, more dollars, more training, and more students. The hoped-for outcome was that there was more interaction within the institutes and more transitional research with other faculties on campus and at other universities. While there was little critical examination of the effect of the changes—that is, to prove they were actually beneficial⁸⁷—several case studies suggest that these initiatives were successful on the research level, assisted funding-raising campaigns, and increased external donor support for the U of C's Faculty of Medicine.⁸⁸

The institutes were also a way to raise additional money. It was easier and simpler to explain their mandate and contributions to the public as a group of talented researchers with common research and clinical interests. In turn, the support obtained locally could be used to fund infrastructure, pilot studies, awards for trainees, and to help the affiliated investigators obtain peer-reviewed funding. Medical inquiry in Calgary has long been interdisciplinary—even when going back to the time of the research groups at the CGH—so this fit well with the changes that were occurring in the research environment. As the financial picture improved, so did the scientific output from the institutes.⁸⁹

Dr. Gall was very effective in fostering the development of the institutes. He surrounded himself with people hand-picked to help him

operationalize his vision. As noted by many colleagues in the faculty, he was rather an ideas man and wanted to get things done. Furthermore, he was quick to anger, and made quick decisions.⁹⁰ His modus operandi was success-driven and project-oriented. As one department head recalled,

Grant . . . was certainly gruff compared to the others, but you always knew exactly where you stood with him. He was a little more dictatorial, but decisions were rapidly forthcoming. Sometimes you might not like the decision, but this was not normally the case. If a plan was well-conceived (and you could prove it to him), he would just say, “proceed.” I found that refreshing. . . . He was an excellent negotiator and dealmaker! Without any question, his first term was much more successful than his second.⁹¹

However, over time he alienated more and more people. Unhappiness among certain quarters of the faculty led to a prolonged discussion at the 9 May 2001 FC meeting about the selection/review committee for the new dean. Many members expressed disappointment with Grant Gall's top-down and often blunt leadership style.⁹² It was hoped that research institutes could potentially find the best fit for addressing research questions with up-to-date interdisciplinary methods. Because the existing research institutes were primarily set up to control research space and find start-up funds for newly

recruited faculty, the pre-existing departments had little say in this matter.

In December of 1997 several former departments changed their names. This included the Department of Anatomy, which became the Department of Cell Biology and Anatomy, and the Department of Pathology, which changed to the Department of Pathology and Laboratory Medicine. The latter change coincided with the formation of Calgary Laboratory Services.⁹³ In 1998 the Planning and Priorities Committee was recreated to develop faculty-wide benchmarks for personnel and programs in order to link planning with the annual budget process and space resources.⁹⁴

Some Curriculum Reforms

During Dr. Gall's deanship, the U of C Faculty of Medicine took additional steps to reaffirm one of its founding educational mandates—to train much-needed family physicians to serve Western Canada.⁹⁵ On 12 May 1999, the FC reaffirmed that 85 per cent of U of C medical students in any given academic year should be Albertans. However, despite the original hopes for more Albertans to join the student cohort, it remained a goal, as local students were not as well trained as some of their peers from other provinces and they often had limited research experience. A limited number of international students were accepted as well, as they could readily pay the out-of-country tuition fees.⁹⁶ In May 2000, Dr. Gall reported to the FC that the LCME accreditation team left Calgary “very unimpressed by [the U of C] UME program.

. . . However, the accreditation team was very impressed with our CME program.”⁹⁷ Some contemporary sources reported that “Calgary graduates are perceived to be different compared to graduates from other traditional medical schools,”⁹⁸ as they emphasize the softer communicative, social, ethical, and clinical-diagnostic skills, with a reduced emphasis on practical and scientific skills. Dr. Gall did not think that these comments would necessarily have a negative impact on the medical school's reputation, though he agreed that the concerns and complaints of the external accreditation and review committees had to be taken seriously.

Like his predecessors, Gall was supportive of the three-year medical curriculum. He saw the benefits of medical students being able to commence their careers earlier. While the curriculum was not without its detractors,⁹⁹ it was recognized as a novel contribution that received continued reassessment by the faculty's curriculum committee during Dr. Gall's term as dean.¹⁰⁰ However, some of the department heads felt that the curriculum was light on basic medical science teaching and that insufficient content in particular areas was provided to medical students. To help answer unsettled questions about the benefits and problems of a three-year medical curriculum,¹⁰¹ the Association of American Medical Colleges approached the U of C in 2000 to administer an end-of-medical-school questionnaire, like the ones used in the United States. Along with Dalhousie, the U of C was the first Canadian school to run such a baseline survey.

It is worth noting that, independent of the drop in provincial funding and the constant troubles with external accreditation bodies and ranking institutions that characterized this period, the U of C Faculty of Medicine's financial situation gradually and steadily improved over these years.¹⁰² In the year 2000, external funding reached a new high of \$84.49 million. On 15 September 2003, a total of \$8,160,978 was received from the CIHR. For the first time, this put the U of C faculty fifth of all universities in the country receiving CIHR funding.¹⁰³

The McCaig Bone and Joint health program, with a its focus on arthritis and inflammation research, had its origins in the early interdisciplinary research groups, most of which were originally housed in the HMRB building. The program expanded into both the HRIC and TRW buildings, while the clinical service became the basis for planning the McCaig Tower, which opened in 2011.¹⁰⁴ The Klein government approved the expansion, which was paralleled by the building of the Mazankowski Heart Institute at the U of A.¹⁰⁵ The rise in incoming dollars from increasingly successful research funding and philanthropic sources also saw the faculty increase its number of full-time members. In 2004, it had 280 full-time faculty members, which at that time made it the U of C's largest faculty (this would change when the Faculty of Arts merged in 2011).

In 2006 external, non-government funding for the Faculty of Medicine reached an all-time high of \$134,100,000 up to that point.¹⁰⁶ Increases in operational funding permitted an expansion of

all entry classes. That fall, for example, more than 500 students were admitted into degree programs in the Faculty of Medicine, and for the first time the UME program took in 125 students, matching the U of A's enrollment.¹⁰⁷ In December 2006, the faculty opened the undergraduate bachelor program in neuroscience in conjunction with the Faculties of Science and the Social Sciences.

A member of the Calgary community later recalled the impact of the changes that Dean Gall oversaw during his tenure:

Ten years later, as a result of [Dean Gall's] single-minded determination and his vision, the entire campus was transformed. We have a brand new HRIC building, we have the brand new TRW building, we have the McCaig Centre, we have the retrofit of the Bachelor of Health Sciences. . . . [Dr. Gall] literally physically transformed the entire campus. . . . Once he had the buildings, he had already been thinking about what would go in them. . . . He created six research institutes and the vision of the institutes was to link the research lab, the bench, to the bedside—i.e., the patient, and beyond . . . to the community and community health—and most of those institutes are thriving. And he selected the best and brightest. And there's been some remarkable things that have happened within them and they've

wound up creating a cornerstone of this U of C Faculty of Medicine, creating the anchor in terms of the academic end to the health delivery system. . . . Another part of how the Faculty of Medicine evolved almost exponentially in that ten-year period was through the REACH! Campaign . . . and Grant was definitely part of the founding and strategizing about that . . . \$300 million campaign. . . . The reason it was so successful, I believe, was there were three great co-chairs. . . . It was so integrated . . . such a . . . close relationship with Jack Davis, who was then CEO of the region, the health-care system. . . . It was so integrated that they were able to work to a have an umbrella campaign. . . . He [Grant] was kind of the right person at the right time, he was kind of the maverick in the Wild West.¹⁰⁸

The success of the O'Brien Centre for the Bachelor of Health Sciences was seen when the first class of forty-seven students completed their bachelor of health sciences degree and graduated on 12 June 2008. Forty-three of those students graduated with honours and thirty-one even received first-class honours, the U of C's highest distinction. Most of these graduates had studied in the biomedical stream, with some in the health sciences and a few in the bioinformatics streams.¹⁰⁹

Plans were also initiated during Dean Gall's tenure to move the bachelor of community rehabilitation program from the Faculty of Education to the Faculty of Medicine. This process took two and a half years, until 2007, at which point the bachelor of community rehabilitation was offered online for the first time (for more on this program, see the following chapter on the deanship of Tom Feasby).¹¹⁰

The fall of 2007 also presented the faculty with a noticeable political and socio-economic challenge in the form of the growing need for new health-care workers in the province,¹¹¹ a topic that was soon taken up by local media.¹¹² The recently built Alberta Children's Hospital even had to close services—including operating rooms and the recent magnetic resonance imaging facilities—because of staffing shortages.

In January 2007, the Dean's Office moved to the seventh floor of the newly opened TRW building with offices overlooking western Calgary and the Canadian Rocky Mountains. That July, Dr. Thomas Feasby succeeded Dr. Gall and began his first term as dean.¹¹³

Research Contributions

Investigators in the Faculty of Medicine were responsible for several substantial research achievements at the U of C during the Gall deanship. Above all, the work on neuronal regeneration and cell proliferation in the brain done by Dr. Sam Weiss (b. 1955), a neuroscientist and the head of the Hotchkiss Brain Institute, stands out. The paper

Figure 1: First page of Brent A. Reynolds and Samuel Weiss, "Generation of Neurons and Astrocytes from Isolated Cells in the Adult Mammalian Central Nervous System," *Science* 255, no. 5052 (1992): 1707-10.

Generation of Neurons and Astrocytes from Isolated Cells of the Adult Mammalian Central Nervous System

BRENT A. REYNOLDS AND SAMUEL WEISS*

Neurogenesis in the mammalian central nervous system is believed to end in the period just after birth; in the mouse striatum no new neurons are produced after the first few days after birth. In this study, cells isolated from the striatum of the adult mouse brain were induced to proliferate *in vitro* by epidermal growth factor. The proliferating cells initially expressed nestin, an intermediate filament found in neuroepithelial stem cells, and subsequently developed the morphology and antigenic properties of neurons and astrocytes. Newly generated cells with neuronal morphology were immunoreactive for γ -aminobutyric acid and substance P, two neurotransmitters of the adult striatum *in vivo*. Thus, cells of the adult mouse striatum have the capacity to divide and differentiate into neurons and astrocytes.

THE GENERATION OF NEURONS IN the mammalian central nervous system (CNS), with few exceptions, occurs during early development (1). Mitogenic growth factors, such as basic fibroblast growth factor (bFGF) and nerve growth factor (NGF), may participate in the production of CNS neurons (2, 3). Epidermal growth factor (EGF) is a powerful mitogen of numerous non-neuronal cells and enhances wound healing and tissue regeneration in various adult organs such as skin, liver, and intestinal epithelium (4). In the CNS, mitogenic and trophic actions of EGF on embryonic and early postnatal cells indicate its importance in neuronal development (5). The demonstration of EGF- and EGF receptor-immunoreactivity in the adult rodent and human CNS (6) prompted us to examine whether EGF-responsive cells could be isolated from the adult mouse CNS.

The striata of 3- to 18-month-old adult mice were enzymatically dissociated and plated in serum-free culture medium containing 20 ng of EGF per milliliter. Cells were seeded in 35-mm-diameter culture

dishes (1000 viable cells per plate) in the absence of supplementary substrate or adhesion factors (7). After 2 days *in vitro* (DIV) most of the cells had died; however, 15 ± 2 cells per plate ($n = 4$ independent culture preparations; the striata of two adult mice were pooled in each of the four experiments) were undergoing cell division (Fig. 1A). Cell division continued for an additional 2 to 3 DIV (Fig. 1, B and C), after which the proliferating clusters of cells detached and formed (6 to 8 DIV) a sphere of proliferating cells (Fig. 1D). Cell division and proliferation were not observed in the absence of EGF, nor were they mimicked by bFGF (20 ng/ml), platelet-derived growth factor (20 ng/ml), or NGF (100 ng/ml). In addition, if cells were seeded on a substrate that had been treated with poly-L-ornithine, proliferation was not observed in the presence of EGF. These findings suggest that the presence of both EGF and a nonadhesive substrate is required to initiate cell division of these isolated adult striatal cells.

To assess the antigenic properties of cells within these 6- to 8-DIV spheres, we transferred them to poly-L-ornithine-coated cover slips, allowed them to adhere for 1 hour, and processed them for indirect immunocytochemistry (8). Virtually all cells in the spheres were immunoreactive for nestin (Fig. 1, E and F; $n = 8$ independent culture

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was an example of the important work being done in this research area; it won Dr. Weiss a Gairdner Award—a faculty first—in 2008. It marked the important discovery of neuronal stem cells in the brain and helped cement the Hotchkiss Brain Institute’s reputation as a new centre of excellence in neuroscience and mental health research.

A critical mass of investigators, plus a substantial body of important work, also contributed to the identification of neuroscience and mental health as an area of local research strength.¹¹⁴ With the original discovery of neuronal stem cells in the human brain by Dr. Weiss’s group, they solved a major problem in the history of neuroanatomy regarding the existence and mechanism of structural plasticity.¹¹⁵ The resulting research article in the prestigious journal *Science* became the most-cited paper in the history of the U of C Department of Pathology. However, shortly after this publication, the restructuring of the department and of laboratory medicine services during regionalization resulted in the formation of Calgary Laboratory Services, which initially did not have a research mandate. Therefore, Dr. Weiss and other basic scientists who were not pathologists were relocated from the pathology department to basic science departments.¹¹⁶

In 2004 the Clark H. Smith Brain Tumour Centre was opened at the U of C. The centre became the home of a comprehensive translational research program that sought to accelerate moving basic laboratory discoveries to treatments in neuro-oncology.¹¹⁷ At the same time Bryan E. Kolb (b. 1947) at the University of Lethbridge was also

pioneering important experimental paradigms in behavioural neuroscience, such as comparative investigations on the prefrontal cortex in cats and monkeys, the relationship of age to the outcome of brain injuries, as well as pre- and post-injury treatment and rehabilitation influences on neuronal recovery.¹¹⁸ At the same time his Canadian Centre for Behavioural Neuroscience was beginning to exchange trainees in behavioural neuroscience with the Hotchkiss Brain Institute. The Lethbridge centre arranged co-teaching events and workshops together with colleagues from the U of C Faculty of Medicine, who were now travelling back and forth between Calgary and Lethbridge. This represented a new form of educational and research collaboration with additional provincial post-secondary institutions and research organizations.¹¹⁹

Other research institutes also made important contributions during this period. For example, Canada Research Chair in Leukocyte Recruitment in Inflammatory Disease Dr. Paul Kubes—of the “Triple I” (Institute of Infection, Inflammation, and Immunity), renamed the Calvin, Phoebe and Joan Snyder Institute for Chronic Disease in 2008—had his gastrointestinal research honoured by numerous awards, including the CIHR Investigator of the Year Award in 2011. He also received the Alberta Science and Technology Award and the Henry Friesen Award for his basic science research on the brain’s immunity interactions. Work from the Snyder Institute has been published in leading biomedical research journals, such as *Cell*, *Science*, and *Nature*, in addition to clinical journals like *The Lancet* and translational journals such as

the *Journal of Clinical Investigation*.¹²⁰ Likewise, the creation of the Libin Cardiovascular Research Institute and its research programs enabled new insights into the nature of clinical diagnoses and cardiovascular treatment options, as well as new interactions on the clinical and investigative levels between heart surgeons, internists, cardiologists, nurses, biomedical scientists, and administrative staff.¹²¹

The development of cardiovascular science and clinical heart care in Calgary over the past ninety years culminated in the creation of this interdisciplinary research institute. It based its technological and research developments on the early introduction of a new electrocardiograph (ECG) machine by Calgary's first heart specialist, Dr. Earle P. Scarlett (1896–1982), which transformed the diagnostics and patient care for heart disease, followed by the first open heart surgery performed in Calgary in 1960, as well as current innovations in pacemaker technology, including the pioneering work of Libin co-founder Dr. D. George Wyse.¹²² In March 2005 the Stephenson Cardiovascular Magnetic Resonance Centre was also opened, which was the first of its kind in Canada, enabling important new heart and blood vessel research.¹²³

These are only a few of the developments and individuals that have contributed and shaped the appearance of modern institutes and research centres at the U of C's Faculty of Medicine. Another of the Faculty of Medicine's major contributions was the introduction of hyperthermic intraperitoneal

chemotherapy, or “hot chemo,” the first offering of its kind in Canada. The treatment approach helped to reduce the treatment frequency in several abdominal cancers to one post-operative treatment and to decrease toxic effects on the rest of the body.¹²⁴ Further research contributions during the mid-1990s included those of Robert Bertram (“Bob”) Church's group in molecular genetics, in collaboration with the team at the University of Edinburgh in Scotland that cloned sheep “Dolly”;¹²⁵ the further development and diversification of the Calgary neurological stroke program facilitated by Tom Feasby in clinical neuroscience; and the bioengineering contributions of Cy Frank's group to the development of new endoprosthetic knee-replacement technologies. Each of these developments helped the U of C take its position as one of the more research-intensive medical schools in Canada, with strengths in clinical, biomedical, and health-care research.

Others' Views of Dean Gall

Throughout his career, Dr. Gall was active in federal and provincial funding agencies. At the national level, for example, he served on various MRC committees for over ten years, and he chaired its Experimental Medicine Grant Review Committee for basic and clinical research for two consecutive years. He supervised a well-funded laboratory for more than twenty years, maintaining his personal research program while dean. He was recognized as a leader in intestinal adaptation and diarrheal diseases.¹²⁶

Grant Gall spent his administrative leaves travelling and hiking in many parts of the world. As U of A gastroenterologist and long-time colleague of Gall's, Robert J. Baley, related in his obituary note:

He was a man with a passion for life. If you have only seen him in a shirt and tie at meetings, stop and imagine Grant in short pants, a T-shirt, walking shoes and a Tilly sun hat, bristling for the adventure at hand. He loved to fish in the Bow River, hunt prairie chickens, walk across countries (particularly Scotland), search for antique cars, listen to the blues and drink expensive Scotch. . . . He was convinced to buy a buffalo coat, a replica of the winter coats worn by the Royal Canadian Mounted Police a hundred (or so) years ago. Imagine Grant standing outside the Banff Springs Hotel, at -40C, waiting for two tardy friends to appear in their buffalo coats, only to be the sole centre of excitement for a busload of Japanese tourists.¹²⁷

Dr. Gall perceived working in a medical dean's office as a way to engage in active decision-making processes, as well as the pursuit of power and personal influence over the U of C Faculty of Medicine's fate—an influence that was also felt abroad at collaborating medical schools. As Dr. Clarence A. Guenter recalled, Gall's contributions and his

personal exchanges have been much venerated, even, for example, at Daqing Medical College in the People's Republic of China:

One school in China [Daqing Medical College] had 16 of their 18 department heads/scholars who had been trained at the U of C. They met after Dr. Gall's death in 2007 and stood respectfully in silence to express their deep sadness. One after the other said how they were unwavering in regarding Dr. Gall's example as their lifelong model, to learn from his medically innovative skills and professionalism, and incorporate them into their respective positions, so as to gain superior achievements [and] to contribute to the medical cause.¹²⁸

Due to the many demands on his time and given his personal contributions as a high-achieving administrator for the U of C Faculty of Medicine, his involvement in provincial and national medical bodies—while juggling his rather extravagant private passions for travel, living abroad, and organizing group trips with colleagues and family friends—Dr. Gall's commitment to teaching was limited. Moreover, his interactions with medical students, residents, and graduate students were of a mixed nature. As one of his leadership colleagues later recalled:

Grant was a dynamo; he was interested only in the biggest of big ideas. He had a great capacity to piss people off. He was a very polarizing figure. . . . If he liked and trusted you, you had carte blanche to carry things out . . . [but] if he didn't trust you it didn't matter how good the idea was, he wasn't interested. . . . [He] was always rushing to the next big idea. I think the faculty had a lot of trouble catching up with him. I think by the time he stepped down there was a desire [in the faculty] to slow down and catch up, and I think it was [a] great mistake, and I think everybody [in the current leadership team] realized it was a mistake [that the pace of changes and decision-making was not kept up]. Grant, as you know, was the leading force in the creation of Vet Med. . . . We put these two buildings up [HRIC and TRW], we created the [research] institutes [in the faculty] . . . we had the most successful fundraising [Reach!] Campaign in the faculty's history to that time . . . [and] in part it was because Grant was a dynamo, and in part it was an era in which the university was very hands-off and let us get on with [our projects].¹²⁹

Indeed, Dean Gall's working style was repeatedly described by contemporaries as individualistic,

opaque, and even exclusionary. And yet, many colleagues from his leadership team remember him as a dynamic leader who was frequently driven by bold ideas, who was always thinking about new opportunities, and who tried to make a difference.¹³⁰

The AHFMR's Commitment to Excellence and a Growing U of C Research Community

In 1998, the third AHFMR International Board of Review committee came to Calgary. In their final report, the committee members declared that the AHFMR's commitment to excellence had given rise to a growing scientific community, particularly in Calgary and Edmonton, an achievement that received a lot of international awareness and admiration.¹³¹ The AHFMR's success was attributed to the arms-length nature of this provincial research funder, which left the scientists themselves a lot of freedom to choose their projects and investigate the research questions that interested them. At the same time, the creativity-driven approach nurtured positive economic spinoff activity, apart from the specific research funds that had been spent.

The cumulative total of the AHFMR research funding had risen to \$600 million by 1998. In 2001 the AHFMR became more concerned with commercialization of the scientific output of the researchers they had supported. To this end, it consecutively set up the ForeFront program to

increase the commercial adaptation of innovations in biomedical research and to contribute to the economic diversification of Alberta's oil- and agriculture-based economy.¹³² The board of the AHFMR hoped that the foundation could become an important stabilizer during the unpredictable "boom" and "bust" periods that the province's economy often faced, and which had significant downstream impacts on the ability of the U of C faculty to build and equip its facilities and hire and retain personnel.

On the positive side, for example, the extraordinary \$15 million infrastructure grant helped to construct and open the HMRB in 1988; this was done through the creation of the new AHFMR Opportunity Fund, which enabled matching funding for strategic research infrastructure initiatives in the province of Alberta. The HMRB became necessary after the Health Sciences Centre had become fully congested with the new laboratories and related research equipment, which had emerged in this teaching-related centre since the end of the 1970s. In line with AHFMR's mandate to provide matching funding to the U of C, the university, the FMC, and the Alberta Cancer Board helped co-finance the necessary \$35 million for this 10,934-square-metre new laboratory and clinical research facility, which was located at the north entrance to the original Faculty of Medicine building.

At the outset, the architectural plan not only included laboratory spaces and offices for researchers, but also seminar rooms, lecture theatres, and even a canopied "garden court" with real trees

that lay between the original medical school and the HMRB—constructed with the intention to enhance faculty communication and collaborative research planning. A gym space served the health and well-being of forty faculty and their research teams, while also being accessible to the whole student population at the Foothills campus. The creation of the Heritage Medical Research Building was just one important initiative through which the AHFMR came to decisively contribute to the local research infrastructure without duplicating research funds that were allocated through other national programs.¹³³

Some of these projects were not popular and were only accomplished due to Dean Gall's political clout and strong advocacy. Referring to the institutes, he had personally noted that the initial idea or creating centres of excellence could be traced back to 2000 and the hopes of the clinical researcher Dr. Cy Frank.¹³⁴ However, of particular importance was the continuing work of Drs. Hans van de Sande and Grant Gall, who organized the Reach! Campaign to find further philanthropic support for the ongoing activities of the U of C's Faculty of Medicine. This later allowed the institutes to flourish through several established endowments that were created with the help of many community donations, while the end of the AHFMR as an important supporting institution is remembered by many in the faculty as a disastrous political decision.¹³⁵

In fact, the increase of the funding activities through the AHFMR had led to an exponential increase in researchers and well-received clinical

faculty, and it helped Calgary to create a much larger research profile and to compete with the traditionally strong and research-minded Faculty of Medicine at the U of A in Edmonton:

Heritage [the AHFMR] . . . immediately permitted us to hire researchers. The essence of it was that they didn't give money for projects, they gave money for salaries of people who would be good enough to write research grants, who would fund their research themselves. They would provide them with some start-up money, equipment, and a salary. And it wasn't forever, it had to be renewed. . . . That was a much better way of recruiting good people and it immediately allowed us to recruit scientists in pulmonary medicine and physiology. To get a Heritage grant was like getting an MRC grant (personnel support). It was a huge deal. Another thing that helped is that when they built the medical school, they didn't plan the space for scientists. When I went for an interview, I got a letter from this guy I had never heard of, Clarence A. Guenter. I wrote back and said that I was not interested, thank you very much, but I forgot to post it (people will tell you that's normal for me) and then my research boss said you should never turn down an invitation

like that because it's their problem if they want to spend the money to get you there and then you can advertise what we're doing in our research and it gives you practice to interview for a job. I knew it was very important being hired as a researcher to be sure that you'd have a sufficient space to do research, because almost everywhere there is not enough space, you'd get a job and find out you'd be working in a broom closet. You can tell I'm not a very aggressive person, but I said to Clarence, "What about space?" So he walked me up to the—not immediately but in the course of the day—the third floor of Health Sciences Centre and you couldn't actually get into it because the doors were locked but you could peer through the glass and what you saw was farmland essentially, acres and acres; the whole building was completely empty. But every few yards there was electricity, vacuum, distilled water that came up from the floor. He wasn't bothered with any more questions from me about the space.¹³⁶

In its 1998 report, the International Board of Review recognized that the AHFMR's solid "commitment to excellence" had given rise to an increasing scientific community, particularly in Edmonton and Calgary, and had earned the

province international recognition. Moreover, many research jobs had been created through AHFMR funding, although these were usually limited term, non-tenured positions that were dependent on future grant funding to these basic and clinical researchers.¹³⁷

In 2001, the AHFMR became more concerned with the commercialization of the scientific products researched in the biomedical laboratories at the U of A and U of C, by helping researchers build connections with the pharmaceutical and medical device industry, supporting the patenting of drugs and medical equipment, and offering assistance for economic start-up opportunities. Further, it was central to the construction of almost all the medical research buildings at the FMC, and the hiring of many researchers in the Faculty of Medicine:

Heritage was vital, it supported about 100 faculty members who essentially did nothing except research and train graduate students, if you bundle that in with research, then really no other teaching, very small teaching. Technically 70 per cent time for research, but in reality 99 per cent. The foundation here and [in] Edmonton and a few in Lethbridge supported something in excess of maybe 230 faculty members. That got blown up by an act of vandalism by the minister in 2004 or 5 or something. It was [a] disaster. . . . I remember meeting

with the minister and being told that they were going to reform it but not to worry as the money would all still be there . . . and then they just destroyed it and it became Alberta Innovates—Health Solutions, and in the next two or three . . . [or] four weeks we will hear it will be changed again. . . . It was a disaster because the way they wound it up was, the awards were five-year awards, and if you had an award then at the end of it they would run out and there would be no more, just the salaries . . . and suddenly the faculty was on the hook for 100 salaries, which is significant money. . . . It was a very very bad thing.¹³⁸

The fourth International Board of Review report, compiled in 2004, applauded the Alberta government for its foresight in inaugurating the AHFMR twenty-five years before and for its continued support for biomedical research. It congratulated the foundation for its sound management and the contributions it had made to the medical research in the province.¹³⁹ Inspired, the Alberta government announced a \$500 million increase to the AHFMR's endowment. This increase was aimed at allowing the foundation to continue and support its activities, as well as attracting new and innovative international researchers to the province. All major stakeholders had been consulted on this decision and were seen to play a role in the decision-making processes and the planning for how

Alberta should move forward into the future of biomedical research. However, in the period immediately following Dr. Kevin Keough's decision to step down as president and CEO of the AHFMR in 2007, the Government of Alberta chose to renounce its plans, dissolve the AHFMR, and use the funds for immediate political purposes under its direction—against the statements in the original AHFMR bylaws. The end of the AHFMR as an important seconding, financially potent, and engaged body is remembered by many in the faculty as a disastrous political decision by the Alberta government.¹⁴⁰

The AHFMR was not the only major contributor to medical research. The Alvin and Mona Libin Foundation, for example, presented the largest-ever one-time donation in March of 2003 to the Calgary Health Region and to the U of C. It totalled \$15 million and contributed to the creation of the Libin Cardiovascular Institute of Alberta.¹⁴¹ While provincial funding cuts were being deeply felt on the infrastructure and development side of the faculty, the Reach! Campaign was launched in October 2005. The timing was fortuitous. The campaign represented the work of a core group of community volunteers and a joint fundraising initiative on the part of the U of C, the Calgary Health Trust, and Alberta Health Services. It started with the goal of raising \$300 million in external philanthropic support for over a hundred projects in medical research, education, patient care, and public health and wellness, in which the faculty already had considerable strength.

By November 2007, the Faculty of Medicine had raised \$180 million of its targeted \$300 million for its large-scale fundraising campaign. By using this remarkable show of support from community partnerships and philanthropic donors, these projects enjoyed substantial increases in funding, particularly after the campaign exceeded its goal by reaching the \$312-million mark in 2009.¹⁴² Favorably presaging this development had been the Alvin G. Libin (b. 1931) family endowment for the Libin Cardiovascular Research Institute in 2003, two years before the Reach! Campaign even began.¹⁴³ All research funding continued to be augmented by AHFMR funding for medical and health-care researchers until the AHFMR was dissolved in 2010 and replaced with Alberta Innovates—Health Solutions, an agency of the provincial government.¹⁴⁴

Unexpectedly, in 2008 the Government of Alberta decided to dissolve the health regions in the province altogether (including the Calgary Health Region) and create a superstructure, the Alberta Health Services, to replace them (for more on this, see the following chapter on the Dean Feasby years). This posed a large internal administrative and organizational challenge, one that was compounded by the 2008 global financial crisis, which also hit the endowments of the U of C Faculty of Medicine very hard. Despite the austerity, the first (of approximately five) research professorships became fully endowed during this period—including the Alberta Medical Foundation/Hannah Professorship in the History of Medicine and Health Care—to pursue international-level research in

the history of medicine and public health, and enhance the teaching offers in medical history and allied subjects.¹⁴⁵ Now there are fifty-five different endowed chairs and professorships in the Cumming School of Medicine alone.

Conclusion

This overview of the development of the U of C Faculty of Medicine under Dean Gall offers particular insights into the educational and medical research demands that the faculty faced between 1997 and 2007 (see Appendix 4). A direct relationship is seen between the decisions made by the faculty and the challenging external circumstances it faced. During Gall's deanship, the FMC and the U of C Faculty of Medicine entered an intricate, give-and-take relationship with the Calgary Health Region, which was heavily influenced by the decisions made by the provincial government and the economic health of Alberta. Ad hoc opportunities and threats resulted from frequent structural changes in Alberta's health and research funding agencies. During this period, educational activities were diversified and research intensity increased as the faculty grew in overall size and complexity. It emerged as one of the larger medical schools in Canada with strengths in select research areas. It continued to struggle to redefine its strategic direction to both position itself for future success and continue to contribute to meeting the educational, health, and research needs of Albertans.

With respect to Dean Gall's impact on the Canadian health sciences research landscape, his reviewing and research-direction roles were more strongly reflected in his work with various political committees of research and clinical funding bodies and entities, rather than his actual review of the work—research grants and publication manuscripts—submitted to the six agencies and nine journals with which he was affiliated. For two decades, he also served on the Steering Committee of the Canadian Association for Gastroenterology and acted as that body's president from 1994 to 1996. His expertise and insights into academic organizational structures were sought as well, with Dr. Gall serving as an external reviewer and adviser to the Hospital for Sick Children in Toronto, the International Centre for Diarrheal Disease Research in Dhaka, Bangladesh, the Baylor College of Medicine in Houston, Texas, as well as the National Institute of General Medical Sciences for the Trauma Research Centre at the University of Texas, also in Houston. Further international speaking and travelling engagements brought him to New Delhi, Hong Kong, Tokyo, Sydney, Amsterdam, Oxford, Basel, and Phoenix, Arizona.

Donald Grant Gall passed away in 2009 while doing what many saw as his favorite activity—international travelling. This brought his retirement plans to an unfortunate and abrupt halt a short two years after his deanship at the U of C Faculty of Medicine ended.¹⁴⁶



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The Dean Feasby Years, 2007–2012

David B. Hogan

Introduction

In 2006 recruitment to replace Dean Gall commenced. Dr. Feasby applied for the position and underwent an initial interview in December of that year. Dr. Feasby recalled that the Search and Selection Committee, with approximately twenty members, was quite large. Reflecting on his earlier experience applying for the deanship at the U of A, Dr. Feasby came “prepared and eager.” After being informed that he was on the short list, Dr. Feasby returned to Calgary in January of 2007 for a second recruitment visit, and that February was offered the position effective 1 July 2007.¹

The faculty that Dean Feasby now oversaw had changed considerably since he left Calgary in 2002–3. Two major opportunities from his perspective when he assumed office were the new facilities (the HRIC and the TRW buildings) and the launch of the research institutes. Both were at a formative stage, and his goal was to capitalize on them. Space is always at a premium in a school of medicine; its lack can hamper the recruitment, retention, and efficient deployment of faculty and staff, the accomplishment of the faculty’s academic and clinical work, and the launching of new initiatives. Conversely, new space can help address these issues, and, depending on how that space is assigned, foster the development of cross-disciplinary and collaborative activities—a clear need with the research institutes early in their evolution.²

Adapting to Provincial Changes

The recession of 2008 led to major reductions in provincial funding of the U of C, as well as a decrease in funding from the AHFMR (in 2009 the foundation provided \$39 million in support compared to \$59 million in 2008)³ and revenue from endowments. Prudent management allowed the Faculty of Medicine to weather this financial belt-tightening without negative long-term consequences.

Alberta Health Services (AHS) formally came into being on 1 April 2009. It arose from the merger of twelve separate health-care delivery entities—the previous nine health regions and three provincial bodies responsible for alcohol and drug, mental health, and cancer services. This merger took place despite the belief that Alberta already had what André Picard of the *Globe and Mail* described as the “best, most innovative health system in Canada . . . [one that] allowed health authorities to shape services to local needs, created better continuity of care, made the health system more responsive, improved public health and led to strong alliances between university researchers and health regions.”⁴ With an estimated ninety thousand employees at the time of its formation, AHS became the largest health-care organization in Canada. It was hoped that the creation of a centralized body would eliminate wasteful competition between regions and allow for economies of scale.⁵ Not all, however, believed the reorganization would lead to significant financial savings.⁶

In the spring of 2009, Stephen J. Duckett became president and CEO of AHS. Born in Sydney, Australia, Duckett studied economics at the Australian National University and health administration at the University of New South Wales. In recognition of his academic contributions, Duckett was elected a fellow of the Academy of Social Sciences in Australia. When AHS hired him, he was CEO of the Centre for Healthcare Improvement of Queensland Health in Australia.⁷

Duckett started his tenure at AHS with high hopes, but shortly after his appointment the Province cut the organization’s budget by more than a billion dollars. Not surprisingly, as he was tasked with the implementation of these cuts, the government’s decision made Duckett personally unpopular. This was not helped by Duckett’s blunt, no-nonsense leadership style and perceived unwillingness to reach out to front-line workers and others with knowledge of health care in Alberta. For example, in June of 2009 he complained that Alberta’s faculties of medicine were lagging behind other Canadian schools in attracting research funds and producing significant results. Duckett said that he favoured funding only research that produced “measurable results.” He also characterized recruitment processes at the U of A as “sloppy.” He spoke of physicians primarily providing front-line clinical care—not a mix of administrative, research, teaching, and clinical services. Moreover, when Deans Feasby and Marrie (of the U of A) sent Duckett a joint letter expressing their concerns about AHS’s strategic plan and the lack of attention being paid to education

and research, Duckett described this as “just one of 7,700 responses” he had received, and that he had no plans to respond quickly.⁸

On 20 November 2010, televised remarks Duckett made (or more accurately did not make) to the media following a high-level meeting about the province’s emergency rooms brought things to a head. Duckett refused to answer reporters’ questions, saying instead that he was eating a cookie and that another person had been designated to make comments.⁹ Though he later issued an apology and emphasized that he had been instructed not to make any comments, on November 24 the chair of the AHS Board announced that, by mutual agreement, Duckett would vacate his position after just twenty months. Both parties, it was later reported, felt that Duckett’s ability to continue in his duties had been compromised.¹⁰ Dr. Chris Eagle was chosen as interim and then permanent president and CEO. Further upheaval and organizational shake-ups marked the early years of AHS. Chris Eagle stepped down midway through his five-year contract in October of 2013, four months after the AHS Board had been sacked by Minister of Health Fred Horne for failing to rescind executive pay bonuses.¹¹

The creation of AHS had an immediate and significant impact on the U of C Faculty of Medicine, as it meant that the faculty lost its main health-care partner, the Calgary Health Region. The site of decision-making henceforth became more remote, while the nearly continuous cycle of reorganization within AHS presented additional challenges. For one thing, it complicated

the building (or rebuilding) of relationships. Dean Feasby felt that one of a dean’s major responsibilities is to “get along” and develop good working relationships with key stakeholders. To this end, he cultivated constructive ties with the leaders of AHS (initially Dr. Stephen Duckett and then Dr. Chris Eagle), the provincial government (specifically the ministers of health and wellness and advanced education and technology), and the U of A’s Faculty of Medicine and Dentistry, which was led by Dr. Thomas Marrie, Dr. Philip Baker, and Dr. Verna Yiu (interim dean for ten months) during these years.¹² In 2011, AHS, in collaboration with the U of A and U of C Faculties of Medicine, established the Alberta Academic Health Network to develop a coordinated provincial strategy for academic medicine (including the areas of research, education, and patient care) and to help achieve the goals of the Alberta Health Research and Innovation Strategy. In his dealings with these and other organizations, Dean Feasby always strove to keep the “big picture” in mind and not let personal issues interfere. As important decisions were being frequently made in Edmonton, it was a priority to ensure the U of C faculty was at “the table,” notwithstanding the inconvenience of frequently travelling (often at short notice) to the capital.

Since its establishment thirty years previously, the AHFMR had been successful in maintaining and slowly growing its endowment while at the same time investing over a billion dollars in health research. Bill 27, the Alberta Research and Innovation Act, led to major changes in how the

provincial government would support health research in the future.¹³ It allowed for the dissolution of the AHFMR and the transfer of its endowment fund “to support a balanced long-term program of research and innovation related to health and directed to the discovery of new knowledge and the application of that knowledge to improve health and the quality of health services in Alberta.”¹⁴ On 1 January 2010, Alberta Innovates—Health Solutions (AI-HS) was established and the AHFMR wrapped up.

While the AHFMR had an arm’s-length relationship with the provincial government, the board of AI-HS reported initially to the minister of advanced education and technology. The intent was for AI-HS to use its allocated research funds to support short-term, project-based research aligned with government priorities that had commercialization potential, and to move away from providing salaries for researchers.¹⁵ Rob Seidel, the first chair of the AI-HS Board, was quoted in 2010 as saying that he would judge the success of this new funding strategy by determining whether the Province began doing better “on wealth creation, cost reduction and improving processes.”¹⁶ The minister of advanced education and technology, Doug Horner, along with Gene Zwozdesky, the minister of health and wellness, jointly sponsored the Alberta Health Research and Innovation Strategy that was released in 2010. This document provided a high-level framework for health research and innovation investments and decision-making in the province. The framework’s strategic focus was wellness at all ages for Albertans and

developing innovations in the delivery of health services. Attainment of these goals would be enabled by an investment in highly skilled people, innovative platforms, and knowledge translation.

These changes came as a surprise to many in the academic community. Opposition from researchers came late and was not particularly effective.¹⁷ Minister Horner nonetheless reacted angrily to these protestations, as he felt they were based on misunderstandings.¹⁸ From the perspective of the provincial government, it was felt that the prior arrangement was giving inadequate return on investment. Horner was quoted as saying, “The endowment was never meant to be a 25-year payroll plan for universities—it was meant for research.”¹⁹ He believed the changes being implemented would provide greater flexibility in recruiting new people and supporting research that would have a direct impact on the health of Albertans, while also providing opportunities for commercialization. Horner said it was “nonsense” to claim that politicians would be awarding research grants. The provosts and vice-presidents (academic) at both the U of A and the U of C supported him in his response.²⁰

At the time AI-HS was established, the U of C faculty had approximately 110 AHFMR-supported researchers who were now “at risk.” Compounding the natural anxiety brought on by a major change, the government failed to clearly communicate how the universities and their faculties would move from one system to the other. A transition fund of \$118 million, taken from the AHFMR endowment and spread over seven years, helped in covering

the salaries of researchers whose AHFMR support was coming to an end. This gave the Universities of Calgary, Alberta, and Lethbridge time to adjust. These three institutions worked together to collectively negotiate a satisfactory agreement with the provincial government. Considerable effort at the university level was necessary to work out a viable plan with the provost and reassure faculty that they would be looked after.

Opportunities, Initiatives, and Changes Closer to Home

Dr. Harvey Weingarten, an experimental psychologist, stepped down as president of the U of C in 2010, with engineer Dr. Elizabeth Cannon selected as his successor. Under her leadership the bold Eyes High strategy was created after wide consultation; it was released in 2011. Its uncompromising vision was aimed at ensuring that “the University of Calgary will be a global intellectual hub located in Canada’s most enterprising city. In this spirited, high-quality learning environment, students will thrive in programs made rich by research and hands-on experiences.”²¹

By 2016 the U of C wanted to be one of Canada’s top five research universities in terms of impact (in 2011 it ranked eighth based on direct research funding). The three foundational commitments outlined in Eyes High were to sharpen the school’s focus on research and scholarship, enrich the quality and breadth of learning, and fully integrate with the broader community. The university’s

Academic Plan and its Strategic Research Plan, both released in 2012, fleshed out these aspirational statements and provided more specifics on how this would take place.²²

Late in 2010, the faculty released its own strategic plan, which aligned with the U of C’s overarching priorities and goals.²³ Based on wide internal and external consultation, a vision (encapsulated in the slogan “creating the future of health”), mission statement, and core values were created. These, in turn, were used to define five broad strategies (raising the performance bar; excellence through broader accountability; sharpening research focus; sharpening education focus; and, exceptional patient care integrated with education and research) and twenty-one specific objectives to direct and measure the school’s collective efforts over the next five years.

The inaugural class of the U of C Faculty of Veterinary Medicine (UCVM)—Canada’s fifth veterinarian school and the first opened in two decades—began their studies in the fall of 2008. The faculty was established in the wake of an outbreak of bovine spongiform encephalopathy (BSE) in the province. On 20 May 2003, the Canadian Food Inspection Agency announced that a cow from a Northern Alberta farm was found to have BSE. The United States immediately banned Canadian beef and cattle and about forty countries followed suit. This single case was enough to jeopardize a national industry worth billions annually.²⁴ The main office, classrooms, library, and basic research laboratories of the UCVM were located on the Foothills campus site while much of its

clinical teaching and applied research takes place at the Spy Hill Campus in northwest Calgary. The co-location of UCVM and School of Medicine research labs brought animal and human health researchers together, fostering collaboration and interdisciplinary research.

As noted previously, the commissioning of the HRIC and the TRW building offered further opportunities for growth of the school that should not to be missed. In 2007, they were essentially empty shells. It was estimated that about \$40 million would be required to “fit out” the buildings and fully occupy them.²⁵ Construction costs had escalated to such an extent that all the assigned funds had been spent. The provincial government was reluctant to provide additional money, as it felt that it had already paid for the buildings. Dealing with this issue was initially not a top priority for the U of C. Both the university and the provincial government had to be convinced that funds had to be found to allow for the buildings’ occupancy. At an opportune time, Dean Feasby was able to tour Minister Horner around the empty buildings. At a subsequent meeting they had later that day with Alan Harrison, the U of C provost, it was agreed that finishing, equipping, and occupying these two buildings would be a university priority and that the required \$40 million would be provided by the provincial government. If the meeting with Minister Horner and the provost had occurred two months later, when the recession began having a significant impact on the Province’s finances, it is unlikely these funds would have been

forthcoming.²⁶ The work on the two buildings was completed in 2010.

When Dr. Feasby became dean, the faculty had an accumulated debt of about \$2 million and was running an annual operating deficit. About thirty individuals reported directly to him. With the support of Paul Heinrich (who was the faculty’s executive director and chief financial officer for the first nine months after Dr. Feasby arrived) and Guy Levy (executive director of the faculty during the balance of Dean Feasby’s term) the accumulated debt and annual deficit were turned around in two years. When interviewed for this book, Dean Feasby specifically commended his senior leadership team for their contributions in addressing this and the other challenges encountered during his tenure.²⁷ He reorganized his dean’s office, delegated more, and created an Executive Committee consisting of himself, Mr. Levy, Dr. Richard Hawkes (senior associate dean, research), Dr. Benedikt Hallgrímsson (senior associate dean, education), Dr. Ron Bridges (associate dean, clinical affairs), and his vice-dean (initially Dr. Brent Scott then Dr. Jon Meddings and, at the end of his term, Dr. Glenda MacQueen). The Executive Committee met weekly. Dr. Feasby’s leadership style, as he later described it, was to bring together a diverse group of “smart people who work hard,” give them various responsibilities, and ensure that they got credit for their successes.²⁸ Dean Jon Meddings applauded this approach, feeling the accomplishments of his predecessor as dean arose from a culture of collaboration that he fostered.

Two faculty committees require special mention here. The Dean’s Advisory Board under the leadership of Gail O’Brien and Bill Sembo provided vital and much-appreciated advice to the dean and his leadership team on many issues, including business strategies, government relations, and the needs of the community and how best to respond to them. The second committee addressed the objective in the faculty’s strategic plan to promote (and recognize) the success of its academic members in internal and external awards.²⁹ To achieve this, an Awards and Recognition Committee chaired by Dr. V. Wee Yong was created in 2008. A database of awards and recognition opportunities linked to a system that identified eligible faculty members was created. Information on the nomination process and assistance (if requested) in putting together a competitive application package was provided. As can be seen in table 1, the committee was very effective in its work. Distinctions of particular note occurring during this period include four Orders of Canada, a Canada Gairdner International Award, Canadian Institutes of Health Research—Canada’s Health Researcher of the Year Award, and a Rhodes Scholarship.³⁰ An annual Celebration of Excellence event to honour faculty who received prestigious awards during the previous year and a Wall of Excellence in the HRIC atrium (unveiled on 18 January 2012) were both established during Dean Feasby’s time in office.

Table 1: Select Awards to Students, Staff, and Faculty (listed alphabetically)

- Dustin Anderson, Governor General’s Gold Medal Award (2011)
- Todd Anderson, Fellow of the Canadian Academy of Health Sciences (2012)
- John Baumber, Member of the Order of the University of Calgary (2009)
- J. Gregory Cairncross, Fellow of the Royal Society of Canada (2009)
- David Campbell, CMA 2011 Award for Young Leader (Student) (2011)
- William Cochrane, Alberta Order of Excellence (2007) and laureate of the Canadian Medical Hall of Fame (2010)
- Jay Cross, Fellow of the Canadian Academy of Health Sciences (2010)
- Marvin Fritzler, Fellow of the Canadian Academy of Health Sciences (2011)
- Donald G. Gall, Member of the Order of the University of Calgary (2008)
- William Ghali, Fellow of the Canadian Academy of Health Sciences (2010)
- Subrata Ghosh, Fellow of the Canadian Academy of Health Sciences (2012)
- Clarence Guenter, Member of the Order of Canada (2010)
- David Hart, Fellow of the Canadian Academy of Health Sciences (2008)
- Robert Haslam, Member of the Order of Canada (2007)

- Brenda Hemmelgarn, Fellow of the Canadian Academy of Health Sciences (2012)
- Morley Hollenberg, Royal Society of Canada McLaughlin Award (2011)
- Merrill L. Knudtson, Member of the Order of the University of Calgary (2010)
- Paul Kubes CIHR Canada's Health Researcher of Year (2011)
- Susan Lees-Miller, Fellow of the Royal Society of Canada (2010)
- Jocelyn Lockyer, Canadian Association for Medical Education Ian Hart Award for Distinguished Contribution to Medical Education (2009)
- Henry Mandin, RCPSC Duncan Graham Award (2011)
- John Manson Pelton, Member of the Order of the University of Calgary (2008)
- Renée Martin, Fellow of the Canadian Academy of Health Sciences (2007) and Fellow of the Royal Society of Canada (2008)
- Jonathon Meddings, Fellow of the Canadian Academy of Health Sciences (2010)
- Lois A. Milne, Member of the Order of the University of Calgary (2010)
- Christopher H. Mody, Fellow of the Canadian Academy of Health Sciences (2011)
- Braden O'Neill, Rhodes Scholarship (2010)
- Quentin Pittman, Fellow of the Royal Society of Canada (2010)
- David Proud, Fellow of the Royal Society of Canada (2012)
- Robert Sheldon, Fellow of the Canadian Academy of Health Sciences (2008)
- Garnette Sutherland, Member of the Order of Canada (2011)
- Hans Vogel, Fellow of the Royal Society of Canada (2012)
- Michael Walsh, Fellow of the Royal Society of Canada (2009)
- Samuel Weiss, Canada Gairdner International Award (2008) and Fellow of the Royal Society of Canada (2009)
- V. Wee Yong, Fellow of the Canadian Academy of Health Sciences (2010)
- Gerald Zamponi, Fellow of the Royal Society of Canada (2008) and Fellow of the Canadian Academy of Health Sciences (2010)

The Reach! Campaign was an ambitious joint fundraising effort of the U of C, the Calgary Health Trust, and the health-care sector (initially the Calgary Health Region and then AHS). It was co-chaired by Brenda Mackie, Bill Sembo, and Ken King, and it raised over \$312 million by the time it concluded in 2009.³¹ This money was used to support more than a hundred initiatives, including the Centre for Emerging Infectious Diseases, the Centre for Excellence in Hypertension, the Enbridge Research Chair in Psychosocial Oncology, the Forzani and MacPhail Colon Cancer Screening Centre, and the Southern Alberta Institute of Urology.

In 2007–8, a comprehensive faculty mentorship policy was put in place for junior faculty members. Modelled on a similar policy used by the U of A's Department of Medicine, a mentorship director paired mentors (or on occasion a team of mentors) and *protégés* (also known as mentees). The junior member would then be mentored for five to ten years until promoted to associate professor. The twenty-page policy document outlined a formal process with regular documented meetings at least every six months. While the program did raise the profile of mentorship within the faculty it quickly became clear that mentorship was equally important for students and could be more effectively done at a departmental, institutional, or program level. Historically, academic mentorship (a process by which an experienced, respected, and empathetic person guides another, usually younger, individual in their personal and professional development) had taken place on an informal

basis within the person's "home" division, department, and/or institute.³² Mentorship programs were put in place for bachelor of health sciences, medical (through what was initially called the Faculty Advisor Program but was later referred to as the Faculty Mentorship Program), and leaders in medicine students. For medical students and postgraduate medical trainees, the nature of these mentoring relationships play an important role in raising interest in specific medical fields such as family medicine.³³ Mentoring (or remediation) is also offered to undergraduate medical students with repeated performance deficiencies and to help physicians from abroad assimilate into a rural Alberta practice.³⁴

Another objective of the faculty's strategic plan was to "create a socially responsible . . . global health program to ensure that the activities of the Faculty have a positive net impact on international development while also enhancing our international profile and benefiting our students and faculty."³⁵ Building on what had been done to date, the faculty sought to expand the opportunities available to students for global clinical and research electives. This naturally led to reflection on the need and nature of pre-departure training and post-return debriefing for these students.³⁶ As well, there was continued interest in building capacity within less-developed nations facing daunting health challenges. Examples of such capacity-building activities include the Sudanese Physician Reintegration Program and the Southern Sudan Healthcare Accessibility, Rehabilitation, and Education (SSHARE) Project.³⁷ The U of C's Chris

Brown produced an award-winning documentary titled *A Working Adventure in Laos* that vividly tells the story of the successful partnership forged with colleagues in Laos.³⁸ Reflecting this broad interest within the faculty, the inaugural Dr. Clarence Guenter Lecture on Global Health was held in Calgary on 11 April 2011. Fittingly, Dr. Guenter, whose contributions to international health are outlined in chapter 4 of this volume, gave a talk titled “Reflections of a Foreigner.”

Dean Feasby was an untiring advocate for these activities, and the establishment of the Tom Feasby Graduate Award in Global Health honoured this commitment. Designed to foster the development of health-care leaders in low- and middle-income nations, it provides support to candidates accepted into a PhD graduate program at the Cumming School of Medicine. Preference is given to those from countries where the faculty has an established relationship, such as Laos, Tanzania, Ethiopia, Sudan, Nepal, Uganda, and the Philippines.

Education

Under Dean Feasby the faculty was home to the following educational programs:

- Bachelor of health sciences
- Community rehabilitation and disability studies
- Graduate science education
- Doctor of medicine
- Postgraduate medical education
- Continuing medical education and professional development

The bachelor of health sciences (BHSc) is a four-year honours degree with three program options (bioinformatics, biomedical sciences, and health and society). Though several of its graduates enter medical school every year, it is not a pre-medical program. It focuses on building skills in research, critical thinking, writing for academic journals, and working in interdisciplinary teams. In the spring of 2007, the first class of forty-eight graduated. A reflection of the program’s success is the number of publications co-authored by BHSc students. Between 2007 and 2012 seven could be found on PubMed (a free search engine accessing primarily the MEDLINE database of references and abstracts on life sciences and biomedical topics).³⁹

Community rehabilitation and disability studies is a small interdisciplinary and inter-faculty university program offering several study options leading to bachelor of community rehabilitation, master of disability and community studies, master of science in community rehabilitation and disability studies, or doctor of philosophy in community rehabilitation and disability studies degrees.

During Dean Feasby’s tenure ten graduate science options were available in the school (biochemistry and molecular biology, biomedical technology, cardiovascular and respiratory sciences, community health sciences, gastrointestinal sciences, immunology, leaders in medicine, medical science, microbiology and infectious diseases, and neuroscience) through the faculty of graduate studies. (Table 2 provides summary information on the number of master’s and PhD

students enrolled in one of these programs between 2007 and 2012.)

There was also the development of a new graduate program to train pathologists' assistants. The first students enrolled in July 2012. Those with this training assist anatomical pathologists. Training programs are two years in duration and accredited by the National Accrediting Agency for Clinical Laboratory Sciences. They lead to an MSc-level professional degree. Graduates of accredited programs are eligible to sit certification examinations. The U of C program is one of only two accredited training programs in Canada.⁴⁰

The size of the incoming MD class grew from 135 (2007) to 180 (2009) before falling back to 170 (2010).⁴¹ To deal with the greater number of medical students and changes in clinical practice, which made it more problematic to rely on volunteer faculty, in 2007 the faculty launched the Master Teacher Program. Master teachers were physicians with a demonstrated track record of providing excellence in education who received further training in educational techniques through the Teaching Scholars in Medicine Certificate Program, after which they would be integrated into teaching roles within the undergraduate medical curriculum. As of July 2012, forty-eight master teachers had been hired. Each appointee committed to approximately one day (8 hours) per week of educational activities. Over the course of one year, 340 hours must be provided.⁴² During this period the rural integrated community clerkship (now called the University of Calgary longitudinal integrated clerkship) was introduced. This allowed

for the placement of pairs of third-year medical students in established teaching sites outside Calgary for thirty-six weeks of their clerkship year.⁴³ Developing distributed learning models was one of the faculty's objectives in its strategic plan. Last, but by no means least, in 2008 the faculty underwent a successful CACMS-LCME accreditation visit and was approved for eight years.

Historically, the U of C's medical students have shown a strong sense of responsibility and concern for the problems of society. For several years, the Med Show and other student-led activities have raised funds for local organizations such as the Calgary Urban Project Society. The *Rich Man, Poor Man* dinners and silent auctions were introduced as a new way to raise funds for various good causes. Participating diners were seated in groups of eight. At each table a person at random received a three-course rich man's dinner, while the rest got a "poor man's meal" consisting of vegetarian fare.⁴⁴ This reflected the disparity in wealth seen in our world, where many people do not have access to stable food sources. In 2010, medical students from the U of C also opened a student-run clinic at the Calgary Drop-In and Rehabilitation Centre, Calgary's largest homeless shelter. During weekly evening clinics, two students see patients, who they review with a supervising physician. They collaborate with the physician to establish a treatment plan for individual patients and then assist them in following through with it.⁴⁵

Lindsay Kimmett, a second-year student, was tragically killed in a 2008 car accident. Her family established the Lindsay Leigh Kimmett Memorial

Foundation, which had raised nearly \$1.8 million by 2016 through events like the Kimmet Cup to help fund a variety of charitable endeavours, such as the U of C Lindsay Leigh Kimmet Prize in Emergency Medicine and a birthing centre in Tanzania.⁴⁶ The LINDSAY virtual human project, initiated in 2009, is named after her.⁴⁷ The project entailed the creation of a three-dimensional, interactive computer model of male and female anatomy and physiology to be used for medical education.⁴⁸ It arose as a collaboration of the Evolutionary and Swarm Design Laboratory of the Department of Computer Science, Faculty of Science, and the undergraduate medical education program in conjunction with the Virtual Medical Education Unit at the U of C's School of Medicine.

From 2007 to 2012 the postgraduate medical education office oversaw between 600 and 900 medical residents, clinical fellows, and international trainees per year, as well as approximately 300 visiting elective residents (see table 2). These trainees were enrolled in over sixty specialty and subspecialty programs accredited by the RCPSC and/or the CFPC. The faculty underwent successful accreditation of its postgraduate training programs in 2009.

Between 2007 and 2012 there was a growth in the number of faculty graduates who selected family medicine as their training choice. Twenty-four members (23.8 per cent) of the graduating class in 2007 selected family medicine. By 2012 this had increased to sixty-nine (40.8 per cent).⁴⁹ The increase occurred by design, as the low number of graduates choosing family medicine was

seen as a problem.⁵⁰ In fact, one of the objectives of the faculty's strategic plan was to encourage *generalism* in the undergraduate and postgraduate medical education program.⁵¹ Factors that positively influenced how students perceived family medicine were carefully considered. These included early exposure to family physicians and the provision of high-quality primary care experiences.⁵² An internal task force on promoting family medicine as a career choice, chaired by Dr. Keith Brownell, was struck and in 2009 it submitted its report. It contained thirty recommendations for faculty leadership to help redress the imbalance.⁵³ Several factors contributed to the success of this effort to increase interest in family medicine training, but only a few can be noted here. Associate Dean for Undergraduate Medical Education Dr. Bruce Wright was a highly regarded family physician and served as an effective role model. While the Master Teacher Program was open to all physicians, approximately half of participants were either family doctors or other generalists.⁵⁴ This provided students the opportunity of having greater contact with them. Finally, the exposure of students to clinical training in family medicine was increased by 50 per cent.⁵⁵

The Office of Continuing Medical Education and Professional Development offered a broad range of evidence-based learning opportunities to physicians, other health professionals, and the public in a variety of well-received formats. Course accreditation, professional course and event planning and management, venue arrangements, advertising and marketing help, registrant course

Table 2: Faculty by the Numbers

(Source: Canadian Medical Statistics)

	2007-8	2008-9	2009-10	2010-11	2011-12
MD (number)					
First-year class	150	148	175	168	174
Total	402	435	486	509	518
MD Tuition					
Canadian	\$13,210	\$13,818	\$14,385	\$14,600	\$14,864
International	\$45,000	\$65,000	\$65,000	\$45-\$65,000	\$68,000
Postgraduate clinical trainees (number)					
	611	647	702	803	879
Graduate science (number)					
Master	236	240	-	263	289
PhD	186	190	-	198	212
Faculty (number)					
Full-time	509	529	537	542	547
Part-time	1,281	1,399	1,488	1,660	1,824
Ratio (FT/PT)	0.40	0.38	0.36	0.32	0.30
Research					
Revenue	\$146M	\$133M	\$146M	\$142M	\$143M
Rank	7	8	7	7	7

materials, and course evaluation summaries were offered by the office. An important and highly cited paper published in 2007 that was co-authored by Jocelyn Lockyer, then serving as associate dean for this area, offered a meta-analysis of continuing medical education effectiveness.⁵⁶

Research

Much of the faculty's research activities during this period were organized within seven research institutes:

Alberta Children's Hospital Research
Institute for Child and Maternal Health

Southern Alberta Cancer Research
Institute (renamed the Arnie
Charbonneau Cancer Institute)

Calvin, Phoebe and Joan Snyder Institute
for Chronic Diseases

Hotchkiss Brain Institute

O'Brien Institute for Public Health

Libin Cardiovascular Institute of Alberta

McCaig Institute for Bone and Joint Health

The growth and strengthening of these research institutes was a highlight of Dean Feasby's tenure. A successful model used for six of the seven institutes was the creation of a synergistic partnership

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Continuing Medical Education at the U of C

Following the Osler dictum that medical education should be lifelong pursuit,¹ Canadian physicians have focused on making innovative and progressive changes in medical education. Medical knowledge has grown exponentially, necessitating the identification of what new medical knowledge and skills were needed to keep physicians current.² Thus, the need for an ongoing, effective, continuing medical education program (CME) in an increasingly electronic age.³

With no medical school, organized CME in Calgary was limited to the Calgary Associate Clinic's weekly case conferences at the Palliser Hotel, which began in the mid-1920s. The first full-time clinical department heads at the new Foothills Hospital were made responsible for medical education when it opened in 1966. The medical staff organization mandated a CME committee, which began an on-campus program.⁴ It was coupled with theme-based conferences in Banff on trauma and cancer.

To Dean Cochrane, CME was a priority for family practitioners. His first faculty appointment in 1968, Associate Dean Dr. John Dawson, was given that responsibility. Dawson quickly assumed responsibility for the

U of A's regional CME program in Southern Alberta and on-campus conferences.⁵ A decade later, Dean McLeod appointed Jocelyn Lockyer to manage the program, under the graduate clinical education coordinator, and later the associate dean for CME.⁶

From the outset the Calgary CME program offered six to thirteen courses per year and initiated some longitudinal programs by audio conference as well as starting an evening course. In 1982 a pilot CME program was initiated in Drumheller for physicians and allied health staff. In conjunction with the CPSA, it studied the use of online medical information and literature sources, consults, and referrals, to determine the impact of CME in a rural setting. The program was supplemented with audio and then audiovisual teleconferencing, followed by a hotline to answer clinical questions from consultants in Calgary. The study looked at how individual practices were changed and how new advances were integrated into them.⁷ Subsequent CME research programs focused on how physicians in practice learned and changed; effective teaching techniques; how practice guidelines became integrated; chart reviews; the impact of CME credits; and the role of the physician in patient education.

Recent research has been directed toward the delivery of health-care information to influence/change physician performance, and the links between clinical practice guidelines and actual practice. Specific questions have been addressed, including on the following topics: how small groups learn; the different professional development needs of rural and remote FPs

compared with urban ones; whether self-directed learning influence outcomes; whether face-to-face CME could be transitioned to web-based learning; and whether self-assessments affect clinical competence. The work of the program leaders also contributed to the initiation a national program to accredit CME programs in 2003.

The Professional Achievement Review (PAR):

To link actual practice performance with re-licensure, the College of Physicians and Surgeons of Alberta introduced the PAR program in 1996. To Lockyer, it was an opportunity to assess physician performance, based on feedback from all of the staff and patients with whom the physician worked. She completed her PhD on this subject by studying physician communication skills, collaboration with colleagues and specialists, the office environment, and clinical decision-making.⁸ Customized questionnaires were developed for family physicians and eight specialties, with “instruments” designed for each one. The multi-source feedback (MSF)—or “360 degree assessments,” as they became known—were the earliest and largest organized assessment in Canada, providing physicians with feedback about their communication, collaboration, and professional skills. The program was adopted by several regulatory authorities in Canada and has since become a key program of the Medical Council of Canada.

Rural Physician Action Plan (RPAP):

Formed in 1990 to address the recruitment and retention of physicians in rural Canada, the program was supported by a provincial grant. The CME component

focused on the Medical Information Service, in which physicians were originally provided with information from literature searches conducted on their behalf, as well as on expanded rural programming to support their learning.

Physician Learning Plan (PLP): In 2009 the Alberta Health/Alberta Medical Association negotiated an agreement that introduced the concept of “audited feedback” to physicians.⁹ Funded by the Province, the program worked with groups of physicians to determine areas of concern. Staff from the PLP program then worked with AH and AHS to determine whether data could be secured to provide individualized feedback to the group of physicians. Results and outcomes were shared with each consenting participant involved. Audits have covered such areas as the study of sedative and antipsychotic medication reductions in hospitalized seniors (35 per cent reduction), transfusion rates in ICUs, drugs covering joint replacement surgery, acute sepsis treatment in the ER, vitamin D serum monitoring (with a 92 per cent reduction), among many others.

To date the CME program and its associated faculty/staff have been prolific, publishing over 200 peer-reviewed articles, along with book chapters, monographs, and abstracts. It has 25 staff and a budget of over \$2.5 million, funded by physicians, Alberta Health/Alberta Medical Association, various research grants, industry and other sources. It currently offers 6 online courses and over 50 on-campus courses annually with over 5,000 registrants.

between a lead donor, the health-care system (initially the Calgary Health Region and then AHS), and the U of C. Dean Feasby was particularly proud of his role with the O’Brien Institute for Public Health. It had a longer gestation than the other institutes and had not been launched when he assumed office. Dr. Feasby saw the potential for an institute focused on public health and lobbied against indifference—if not overt opposition—to its establishment within the university. The founding of an institute organized around this theme was a noted objective of the faculty’s strategic plan.⁵⁷ Originally referred to as Institute Seven, it was established as the Calgary Institute for Population and Public Health in 2009. Its name was changed to the Institute for Public Health in 2011 and then to the O’Brien Institute for Public Health in 2014 to recognize the generous \$12 million donation of Gail and David O’Brien. (This was on top of their \$5 million donation to help create the O’Brien Centre for the Bachelor of Health Sciences Program.⁵⁸) Dean Feasby commended the hard work of Dr. Tom Noseworthy in launching the institute (then: Calgary Institute for Population and Public Health) and the leadership then provided to it (as the: Institute for Public health) by Dr. William Ghali.

The Hotchkiss Brain Institute (HBI) profited from an advantageous starting position with a strong director (Dr. Weiss) and a generous benefactor (Harley Hotchkiss and his family). The institute was further strengthened by the announcement in March of 2012 of the Mathison Centre for Mental Health Research and Education, made

possible by a generous \$10 million “investment” (his term) by Ronald Mathison.⁵⁹ Nonetheless, the HBI experienced a deeply felt loss with the passing of Harley Hotchkiss in 2011.⁶⁰ The faculty had already suffered a loss with the death of another generous benefactor, Daryl (Doc) Seaman, in 2009.⁶¹

The Calvin, Phoebe and Joan Snyder Institute for Chronic Diseases had also done very well with a “star” leader (Dr. Kubes) and a supportive donor. The Libin Cardiovascular Institute of Alberta has benefited from the strong leadership of Drs. Brent Mitchell and Todd Anderson and the support of the Alvin and Mona Libin Foundation, as well as other donors. Its accomplishments are detailed in *Hearts, Minds, and Vision: Roots of the Libin Cardiovascular Institute of Alberta, 1930–2010*.⁶² Dean Feasby was proud of the accomplishments and optimistic about the future of the Alberta Children’s Hospital Research Institute for Child and Maternal Health (which has received important support from the Alberta Children’s Hospital Foundation), the Arnie Charbonneau Cancer Research Institute, and the McCaig Institute for Bone and Joint Health.

Several of the faculty’s fifty-two endowed chairs and professorships were filled during this period as well. This included Frank W. Stahnisch’s appointment as the Alberta Medical Foundation/Hannah Professor in the History of Medicine and Health Care at the U of C (2008).⁶³ Neurologist Andrew Demchuk became the first holder of the Heart and Stroke Foundation of Alberta, Northwest Territories & Nunavut Chair in Stroke Research in 2010, while Brenda Hemmelgarn was

named the inaugural Roy and Vi Baay Chair in Kidney Research in 2011.⁶⁴

Two faculty teams were responsible for major advances in health technology. In May of 2008, a surgical team led by Garnette Sutherland successfully used the neuroArm in an operation. They created the first image-guided, magnetic resonance-compatible surgical robot capable of both microsurgery and stereotactic surgery.⁶⁵ Building on this and other successes, their research program has expanded to include an advanced engineering and prototyping laboratory, a surgical performance-haptics laboratory, a telementoring and debriefing room, and an experimental operating room for the development of the neuro-Arm II.⁶⁶ In 2010, a group led by neuroscientist Dr. Naweed Sayed was able to cultivate a network of brain cells that reconnected on a silicon chip and allowed them to monitor their activity at a high resolution.⁶⁷ Referred to as the “neurochip,” this research tool can be used to study how the brain works and has the potential to determine which drugs are likely to work for specific brain disorders by looking at their effects on the activity of brain cells on the neurochip.⁶⁸

Two members of the faculty received national recognition for their research contributions during these years. In 2008, Dr. Sam Weiss received a Canada Gairdner International Award for “his seminal discovery of adult neural stem cells in the mammalian brain and its importance in nerve cell regeneration.”⁶⁹ The CIHR recognized Paul Kubes as Canada’s Health Researcher of the Year.⁷⁰ The award was in recognition for his contributions to

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Calgary Stroke Program

“Creating the Future of Stroke Care” is the vision of the Calgary Stroke Program (CSP). A collaboration of the U of C (Department of Clinical Neurosciences [DCNS] and Hotchkiss Brain Institute) and Alberta Health Services, it provides cutting-edge stroke-related clinical services, rich educational opportunities, and research leadership. The program’s origins date back to 1993, when Drs. Tom Feasby (then head of DCNS), Roland Auer, and Garnette Sutherland persuaded the Heart and Stroke Foundation of Alberta to create the first stroke research professorship in Canada.¹ In late 1995 Dr. Alastair Buchan accepted the position. Concurrently adult DCNS in-patient services were being consolidated at the Foothills Medical Centre (FMC). The Stroke Prevention Clinic, the first component of the CSP, opened in the spring of 1995. Much of the evidence on which it was based came from the work of Dr. Henry J. M. Barnett² of Western University, where both Feasby and Buchan trained. Buchan, with Sutherland and Auer, opened a laboratory in the Heritage Medical Research Building to study the process of cell death following a stroke.³ Buchan hoped to find effective neuroprotective therapies,⁴ but it was the emergence of thrombolysis that revolutionized stroke care.

In December of 1995, results of the National Institute of Neurological Disorders and Stroke (NINDS) tissue plasminogen activator (tPA, a protein involved in the breakdown of clots) trial for acute ischemic stroke were published showing that patients who received tPA were at least 30 per cent more likely to have minimal or no disability three months post-event.⁵ This watershed study showed something could be offered to patients presenting with an acute stroke, though tPA had to be provided quickly and could lead to intracranial bleeding. To be used effectively a major retooling of how stroke care was provided and neurologists practised was required.⁶ Dean Smith suggested to Buchan that a stroke thrombolytic program could be established in Calgary,⁷ and the Calgary Health Region (CHR) agreed to both the use of tPA and keeping a bed permanently blocked on the Neuroscience Critical Care Unit for acute strokes.⁸ A “brain attack” team was rapidly mobilized, with the first local patient treated on 2 April 1996. The results obtained were comparable to those seen in the published trials. Initially all DCNS neurologists were engaged in delivering thrombolytic care, with Buchan providing 24/7 backup support,⁹ but over the years CSP evolved into a separate service. The Canadian licensing

of tPA for acute ischemic stroke in February 1999 was conditional on monitoring outcomes,¹⁰ which led to the Canadian Alteplase for Stroke Effectiveness Study, which looked at all patients treated between 17 February 1999 and 30 June 2001 that was coordinated at the University of Calgary.¹¹ The adoption of thrombolytic therapy for strokes in Canada represented a striking example of rapidly moving from efficacy to effectiveness studies and on to routine care.¹²

Early recruits to the CSP were Drs. Philip Barber (1998),¹³ Andrew Demchuk (who returned to Calgary in 1999 after a two-year stroke fellowship in Houston with Jim Grotta, one of the NINDS investigators),¹⁴ and Michael Hill (1999).¹⁵ By 2018 physician membership in the program had grown to 13 neurologists, 4 physical medicine and rehabilitation specialists, 3 vascular neurosurgeons, and 3 interventional neuroradiologists.¹⁶ A stroke fellowship program funded by CHR was launched in 2000. Drs. James Kennedy, Jessica Simon, Shelagh Coutts, and Anna Tomanek were the initial fellows.¹⁷ As of 2018 75 clinicians from 18 countries have been trained.²³ When Buchan left Calgary in 2005, Demchuk (director of the stroke program), Hill (director of the stroke unit) and Barber (director of the Calgary Stroke Prevention Clinic) assumed medical leadership roles in the CSP.

Stroke was designated as one of six priority clinical areas of the Partners in Health fundraising campaign, with a monetary target of \$14 million.¹⁸ Most of this was to purchase and house an MRI machine. A substantial donation from the Seaman brothers of Calgary jump-started the campaign,¹⁹

and in 1999 the Seaman Family Magnetic Resonance Research Centre was officially opened.²⁰ In 2001 a second imaging centre was opened with support from the National Research Council of Canada and AHFMR for animal work.²¹

Early publications of the CSP dealt with tPA for stroke,²² stroke services,²³ the Alberta Stroke Program Early CT Score (ASPECTS) for strokes,²⁴ and transient ischemic attacks (TIAs).²⁵ The first randomized controlled trial coordinated by the CSP was designed to determine whether early treatment reduced stroke risk after a TIA or minor stroke. Research remains an important component of the work of the CSP. Its members have led important studies, such as the Endovascular Treatment for Small Core and Anterior Circulation Proximal Occlusion with Emphasis on Minimizing CT to Recanalization Times (ESCAPE) trial,²⁶ that have changed stroke care in Canada and around the world.

In 2001 a new multidisciplinary stroke and TIA²⁷ unit opened at the FMC. Over the years the services offered by the CSP have continued to improve and expand. In 2010 it was the only comprehensive stroke program to obtain from Accreditation Canada a Stroke Services Distinction designation, which was awarded to health organizations that meet or exceed national standards for stroke care.²⁸ CSP achieved 99 per cent of all targets for the delivery of optimal care. Complementing this clinical recognition, in 2011 the CSP received a CIHR/CMAJ Top Achievement in Health Research Award.²⁹

research on the immune system, and specifically on how the brain can affect immunity.⁷¹

From a Royal Visit to Fist Bumping

Several other noteworthy activities took place in the faculty between 2007 and 2012 that merit comment:

- Royal Visit: On the 7 July 2011, the Duke and Duchess of Cambridge visited the W21C Research and Innovation Centre on their first official tour of Canada. Premier and Mrs. Stelmach, Chancellor Jim Dinning, and chair of the U of C BOG Douglas Black accompanied them.⁷²
 - Canadian Medical Hall of Fame: The 2010 induction ceremonies of the Canadian Medical Hall of Fame were held at the Bank of Montreal Centre in Calgary on 13 April 2010. One of those honoured was the U of C Faculty of Medicine's founding dean, Dr. William Cochrane.⁷³ On 29 October 2010, Dr. Cochrane and the other living deans (Drs. Mo Watanabe, Eldon Smith, and Feasby), along with Dr. Warren Veale on behalf of Dean Lionel McLeod and Dr. Pam Sokol on behalf of Dean Grant Gall, provided their thoughts on the evolution of the
- faculty as part of celebration of the fortieth anniversary of the first class.
- The Mackie Family History of Neuroscience Collection: The collection was purchased from the Texas-based neurologist Dr. Robert M. Gordon and is made up of over 2,400 books.⁷⁴ It includes an original copy of Watson and Crick's *Nature* paper, in which the double helix structure of deoxyribonucleic acid (DNA) was first described, *Cerebri Anatome* by Thomas Willis, and Camillo Golgi's *Sulla fina anatomia degli organi centrali del sistema nervosa*, which was the only book he ever wrote.⁷⁵ At the opening ceremony in late 2010, President Cannon noted that the collection would be "an invaluable resource for neuroscience research and education."⁷⁶
 - Fist Bumping: In the fall of 2009, during the H1N1 pandemic, Dr. Feasby advocated using a fist bump rather than a handshake as a greeting to prevent the spread of the virus. A paper on the advantage of a fist bump in reducing pathogen transmission was published in 2013, and it was also discussed favourably in an article published in the *Atlantic Monthly* titled "The Fist Bump Manifesto."⁷⁷

Concluding Comments

In May of 2011, Dean Feasby announced that he would not be seeking a second term. Dr. Jon Meddings, who was chosen as Dr. Feasby's successor, assumed office on 1 July 2012.

Dean Feasby's goals were to capitalize on the completion of two new buildings and successfully implement the recently inaugurated faculty-based research institutes. Successfully attaining these goals entailed dealing with the recession of 2008, the creation of Alberta Health Services in 2009, and the changes in provincial health research support brought on by the establishment of Alberta Innovates—Health Solutions. The growth of the faculty required corresponding changes in its administrative structure and style. Under Dean Feasby the faculty had its BHSc first graduates, while the faculty's strong undergraduate MD, graduate, postgraduate medical education, and continuing medical education and professional development programs showed continued success. Important transformative research work was done. All this positioned the school well for whatever the future might hold.



*Geoffrey Cumming visiting a
Cumming School of Medicine research laboratory*

Credit: Ewan Nicholson

Final Thoughts

In this chapter we highlight some of the important influences that have shaped the U of C's Cumming School of Medicine since its beginnings, examine the school's unique features, and assess its impact both locally and more broadly.

Time and Place

The 1964 report of the Royal Commission on Health Services (the Hall Commission) drove the timing of the Cumming School of Medicine's founding. The commissioners believed that the Canadian medical schools then in existence did not have the capacity to "graduate a sufficient supply of well-qualified physicians to meet the expanding demands resulting from an increasing population and a doubling of the number of persons who will have their health services pre-paid through extension of pre-payment to the entire population, as well as to meet Canada's increasing international obligations to train professional health personnel for the developing nations."¹ To deal with this deficit, the commission recommended that existing faculties be expanded and new ones established. Seven new schools dispersed across Canada (Sherbrooke, McMaster, a new faculty in the Toronto area, Calgary, Victoria, Moncton, and Memorial) were mentioned, though only four were eventually founded (Sherbrooke, McMaster, Calgary, and Memorial).²

Calgary was an obvious location for a medical school, as it was then the largest Canadian city, and the third-largest in North America, without a medical school.³ A feasibility assessment was conducted in 1965 by an expert committee chaired by Dr. J. A. MacFarlane (the former dean of U of T and member of the Hall Commission who chaired a similar committee that was struck to explore the founding of the Memorial medical faculty) at the request of the Board of Governors and president of the U of A at Calgary

(as it was then known). It concluded that there was a need for a new medical school in Alberta, and that Calgary was the most suitable site.⁴

Over the years, Alberta has gone through a series of boom-and-bust economic cycles driven by fluctuations in world prices for the commodities (oil and natural gas) that it sells. During boom times both government revenue and expenditures rise, while bust periods are marked by belt-tightening.⁵ The creation of the AHFMR, which, as we have seen, allowed Calgary to recruit and retain talented scientists, occurred during a boom period when the Lougheed government used surpluses to invest in building provincial research capacity. When oil prices fell, and the Klein government made drastic cuts in public expenditures, the U of C medical school faced a lean period, with three consecutive years of budget cuts. This financial rollercoaster played an important role in determining whether the school was expanding or retrenching during the respective deans' tenures.

Calgary itself had a role in shaping the school. A dynamic city whose citizens have a long history of volunteerism and risk-taking was growing rapidly in size (see table 1) and wealth during most of the period covered in this book. Another important influence on the school's formation was the relationship between Calgary and Edmonton, which could be described as a mix of wary co-operation, long-standing competitiveness, and fear that the other party might be favoured—for example, in health-care funding.⁶ The U of C began as a branch of the U of A. Its journey toward independence was long and at times contested.⁷

For example, in 1963 Dr. Walter Johns, the U of A's president from 1959 to 1969, referred to Calgary's efforts at local autonomy as both "useless and uncalled for."⁸ A federated model like the California State University system was considered but eventually discarded. In 1966, the U of C became a separate, autonomous institution.

One striking feature of the early years of the U of C medical school was the modest size of its host university. Though it now has over 30,000 students, in the late 1960s the U of C had only approximately 4,000 full-time students, compared to the approximately 17,500 then attending the U of A.⁹ Medical education in Edmonton pre-dated that of Calgary by nearly sixty years, and the number of students and the breadth of the educational program there were substantially larger during much of the era covered in this history. The founding of the Calgary school would not have occurred as easily as it did without the acquiescence of Dean Mackenzie and the U of A faculty.¹⁰ There was likely reluctance, though, within the U of C medical faculty to seek advice and support from colleagues in Edmonton because of the recent separation from the U of A, coupled with a natural desire to chart their own path. Calgary's distance from the seat of government has been felt by some as a barrier to advocating effectively for the U of C, though this separation may have provided greater licence for independent action. The two Alberta schools do work together in advocating for academic medicine but interact less on a day-to-day basis than might be anticipated, with collaboration generally greater when financial

times are tougher and the faculties feel threatened by external parties.

MacFarlane's affirmative 1965 report to the Board of Governors and the university president on the feasibility of a medical school stated that it "should be an active and integral" part of the U of C campus. In addition to building the required home for the school, it was recommended that a 350- to 400-bed teaching hospital separate from the Foothills Provincial General Hospital and under university control be constructed. A combined "medical school and teaching hospital related to the general science building on the university campus" was envisioned.¹¹

Though supported by President Armstrong, the request for a hospital on campus was rejected by the provincial government because of cost and the availability of the recently opened Foothills facility in close proximity.¹² While some wanted the Health Sciences Centre (the U of C medical school's home) to be built on campus, others, especially the physicians involved, pushed for having it constructed at the Foothills site,¹³ which was eventually chosen. An unanswered question is what would have happened if the HSC had been built on campus with or without a teaching hospital. Some linkages would likely have been strengthened (e.g., with other faculties) while others weakened (e.g., with the Foothills Hospital).

The MacFarlane report also mentioned the desirability of integrating dental and nursing education with medicine.¹⁴ Dental training never was established at the U of C, while nursing opted to go its own way. The presence of a diploma program

in nursing based at the Foothills site caused considerable tension after the creation of a U of C Faculty of Nursing. The Foothills program had previously negotiated an affiliation agreement with the university, which obtained university status for its students. Both the Foothills administration and the U of C registrar signed graduates' diplomas. While collegial relationships with medicine were desired, the leadership of the Faculty of Nursing declined the offer to move into the HSC when it was built so as to avoid "control by either medicine or the hospital."¹⁵ They instead obtained space on the main campus.

Organization, Administration, and Financing

An interdisciplinary structure with a diminished role for traditional departments was the organizational model chosen at the school's founding.¹⁶ Departments were initially called divisions. Done partly to get around the legal status granted departments in the provincial Universities Act, this choice was also made in reaction to the fear that strong departments might impair the flexibility required for achieving institutional goals.¹⁷ While divisional heads were responsible for recruiting faculty and defending their interests, university salaries were controlled by the dean and decisions about institutional matters like the undergraduate medical education program rested with faculty.¹⁸ Over time, the structure evolved with the strengthening of central institutional authority,

the weakening of the power vested in faculty, and the establishment of departments, though they did not achieve the status seen in older schools. The other three schools founded in the wake of the Hall Commission (McMaster, Sherbrooke, and Memorial) also selected administrative structures that curtailed the power of traditional departments.¹⁹ One is struck by similarities on this and other initial decisions made by the leadership groups of the four schools.²⁰ As the U of C grew over the last fifty years, the role of the dean evolved from that of a one-man band expected to function as a visionary leader, hands-on manager, faculty ambassador, and chief fundraiser, into one where the primary responsibility was negotiating collective action to achieve common goals.²¹

Financially, the school has diversified its funding. In its early years, the provincial Department of Education provided, through the university, up to 80 per cent of the medical school's budget.²² By the early 1990s, this had fallen to less than 50 per cent, with the remainder coming from the Department of Health through the local hospitals, research support from agencies such as the AHFMR, and the school's practice plan.²³ Additional sources were needed to deal with the deep cuts in provincial funding experienced during 1990s, and the role of private donors has grown rapidly. As described elsewhere, a series of successful fundraising campaigns were undertaken, and there are now six named research institutes and over fifty endowed chairs and professorships.

University buildings and affiliated hospitals and clinics critical to the medical school's mission

have been added, removed (for example, when three hospitals were closed in the 1990s), renovated, and repurposed over time. For some additions, like the HSC, form followed (hoped-for) function. Competition for limited physical space and clinical resources has at times constrained choices but also forced clarification of institutional priorities.

Faculty and Staff

The quality of an institution is dependent on its people. Recruitment, retention, and diversification of highly skilled faculty and staff are two of the school leadership's most important activities.²⁴ As with other aspects of the school, there has been an impressive growth over the years in the number of such faculty and staff. The awards and other forms of acknowledgement received by these individuals attest to their and the institution's collective quality. While necessary to deal with the school's expanding activities, faculty growth likely has detracted from the sense of cohesiveness that marked the school's early years.

Education and Research

The original undergraduate medical program was taught around body systems. This owed much to the educational program developed at the Western Reserve University School of Medicine,²⁵ which the other three Hall Commission schools also embraced (though McMaster became best known for emphasizing problem-based learning in its delivery).²⁶ During the 1990s the limited number of

Non-Academic Staff

In 1898 Sir William Osler replaced William H. Welch (1850–1934) as dean of the Johns Hopkins School of Medicine. It was not a position he desired, referring to it as an “infernal nuisance,” and, not surprisingly, his tenure was short. Using a bout of acute bronchitis and bronchopneumonia as cover, he resigned in 1899.¹

According to the historian Michael Bliss, Osler’s duties as dean were not onerous, and he quoted neurological surgeon Harvey Cushing (1869–1939) as saying the medical school ran itself. The truth, as it usually is, was more complicated than that. Osler played a leading role in making Johns Hopkins the leading American medical school of its time.² While Dean Osler fulfilled his responsibilities, the school was also blessed with motivated students and excellent academic faculty. Another factor underpinning its smooth operation was the role played by non-academic staff. Cushing qualified his belief that the school “had a way of running itself” by noting this was due to George J. Coy, the registrar from 1893 to 1926,³ whose duties were much wider than solely being the official keeper of academic records. Coy organized faculty meetings, identified and referred talented students for postgraduate work,⁴ tracked the health of the

students,⁵ and otherwise kept the school functioning. The importance of non-academic staff to the operation of a medical school was clear to Cushing, who described them as “trusties” of “real merit” wielding “actual power.”⁶

At the Cumming School of Medicine, non-academic staff includes the senior administrative group, management and professional staff (MaPS), and a diverse group of support workers. Local 52 of the Alberta Union of Provincial Employees (AUPE) is the bargaining unit for the latter. Reflecting the essential nature of their role, representatives of AUPE sit on both the Board of Governors and Senate of the University of Calgary.

The school functions because of their administrative, secretarial, technical, and professional talents. In 2017 MaPS staff accounted for 144.56 full-time equivalents (FTEs) in the Cumming School of Medicine, while support staff totalled 989.23 FTEs.⁷ The two combined (1,133.79 FTEs) amounted to more than twice the number of full-time academic faculty members.⁸ A key element to the success of a medical faculty is the quality of the collaboration between academic and non-academic staff.⁹ A positive student experience, producing high-quality research, and

having a meaningful engagement with the community all depend on the ability of these two groups to work effectively together. Growth in size and complexity of an institution can create challenges in maintaining this essential attribute.¹⁰

It would be impossible to acknowledge all the non-academic staff members who have or are providing essential services to the school. As of 2017 two have been inducted into the Order of the University of Calgary. They will be mentioned as examples of the key contributions made to the research and teaching mission of the school by non-academic staff. Terrance J. Malkinson, who was inducted into the Order in 1997, joined the school shortly after it opened. During a quarter of a century as a biomedical research technologist, he supervised laboratories, taught methodology, and worked with Drs. Keith Cooper, Warren Veale, Quentin Pittman, and others on a number of research projects.¹¹ Adele Meyers retired from the Cumming School in 2016 after forty years of remarkable service as a trusted adviser, confidant, and friend to medical students.¹² Hired in 1976 as an assistant to the admissions coordinator, she assumed that position in 1989. Many students kept in touch with her long after their graduation. Meyers was inducted into Order in 2004. Hundreds of students, alumni, faculty, and staff generously donated toward the creation of the Adele Meyers Award, which provides financial assistance to deserving MD students. Without the contributions of Terrance Malkinson, Adele Meyers, and many others, the school would be a lesser place.

ways a patient can present to a physician became the organizing principle for Calgary's undergraduate medical curriculum. (This shift in curricular design is dealt with in more detail in chapter 4.)

Calgary and McMaster are the only three-year medical schools in Canada. A forgotten recommendation of the Hall Commission was "that funds be made available to those schools that wish to convert to year-round operations for the purpose of improving the quality of instruction and/or reducing the total length of time required to qualify for graduation or licensure to practise."²⁷ Because of the perceived crisis in physician resources, there was a push at the time to shorten medical education.²⁸ Possible advantages of graduating a year earlier for students included savings on tuition and living expenses (leading to a reduced debt burden upon graduation), while society would benefit from increasing the vocational life span of graduates by a year. This is not to mention the one-time "bonus" of two graduating classes in a calendar year (if a four-year school converted to a three-year one). It was believed that the three-year option would be particularly attractive to older, more experienced students.²⁹

As early as 1967, the prospective Calgary MD program was described as three years in duration with an eleven-month academic year. This would lead to nearly the same number of months of education as conventional four-year programs (i.e., in Calgary there would be 136 weeks of instruction over three years compared to 144 weeks over four years at the U of A).³⁰ Undergraduate training

would be followed by at least two years of postgraduate medical training.

In the early 1970s, approximately a third of American medical schools operated as three-year programs or offered their students this option.³¹ Most ended up reverting to a four-year program for a variety of reasons such as student and faculty burnout, the increasing complexity of medicine, quality issues, and diminished student competitiveness for residency positions.³² The question of why Calgary and McMaster bucked the trend and remained three-year schools has not been fully answered.

Another of the U of C medical school's early priorities was training in family medicine.³³ W. A. Cochrane called the family practitioner the "key" person in health-care teams and wrote about their training.³⁴ He felt "at least 70% of our [U of C] students would likely 'stream' in the direction of the specialty of family medicine."³⁵ This prediction turned out to be overly optimistic. In 2008, only 18 per cent of U of C graduates chose postgraduate training in family medicine. By 2014, though, nearly half (45 per cent) were opting for this field of practice.³⁶

Calgary was also one of the first two sites in Canada where postgraduate medical training in family medicine was piloted. A program based at the Calgary General Hospital accepted its initial residents in 1966.³⁷ The College of Family Physicians approached the nascent medical school two years later about becoming involved, as it was hoped an integrated "undergraduate-graduate program for . . . family medicine" would emerge.³⁸

In 1969, a year before the first undergraduate class started, family medicine residents at the CGH became postgraduate medical trainees of the U of C.³⁹ Over the years, the members of the Department of Family Medicine have played key roles within the Cumming School of Medicine. As previously noted, in addition to family medicine, the school offers excellent postgraduate medical education opportunities in a variety of other specialties.

An educational strength in Calgary has been continuing medical education.⁴⁰ Strong graduate science offerings and other educational programs have also emerged. The U of C can boast of highly respected educational programs in kinesiology, nursing, clinical psychology, social work, and veterinary medicine offered through other faculties as well. And yet, opportunities for training in other health disciplines (e.g., dietetic education, occupational therapy, optometry, pharmacy, physical therapy) and greater integration of training across disciplines have not developed as initially hoped.

A hallmark of research at the Cumming School of Medicine has been the structures developed to support interdisciplinary inquiry. One can trace over the years the evolution of these structures from research groups to institutes. In contrast to other parts of the country, in Alberta research centres or institutes that are based in hospitals or hospital networks largely do not exist,⁴¹ though both research and innovation are strongly supported by Alberta Health Services.⁴² It is important to acknowledge both the impetus and continued support for research provided by

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Graduates

The reputation of a school is highly dependent on the accomplishments of its graduates. The Cumming School of Medicine has done well by this metric.

Since the first MD student entered the school in 1970, a total of 3,892 medical degrees have been awarded as of April 2017.¹ This represents just over half (52 per cent) of all University of Calgary degrees conferred after a course of study in the school. Since the establishment of the school there have been 2,499 MSc or PhD, 618 BHSc, and 410 BCR graduates.

At the time of the U of C's fortieth anniversary in 2006-7, the Alumni Association selected for recognition forty graduates. Seven had received an MD at the university. Listed alphabetically, they were Evan Adams (2002), Mary-Wynne Ashford (1981), Cyril Frank (1976), Catherine Hankins (1976), Luanne Metz (1983), Curtis Myden (2006), and George Wyse (1974). Drs. Ashford, Frank, Hankins, and Wyse, as well as Marvin Fritzier (PhD 1971 and MD in 1974) and Douglas Hamilton (MD and PhD in 1991), have also received the university's Distinguished Alumni Award.

Often not counted as university alumnae or alumni, postgraduate clinical trainees and postdoctoral scholars may spend more time than

undergraduate and graduate science students at a school, making important contributions while there, as well as afterwards, to the institution and its reputation. The first full-time learners in the U of C medical school were postgraduate clinical trainees who joined a year before the inaugural MD class. In 2016-17, the Cumming School of Medicine provided residency training to 967 physicians.² Over half (57.1 per cent) had received their MD outside of Alberta.

Postdoctoral training has been described as "part apprenticeship, part education, [and] part self-help course."³ Not fully a student, faculty member, or support staff, postdoctoral scholars inhabit the Bermuda triangle of academic life. In 1996, Caren C. Helbing and Cheryl L. Wellington, while doing postdoctoral work in Calgary, conducted, with the support of Marja Verhoef, the first survey of the postdoctoral experience in Canada.⁴ Many then felt "underpaid, overworked and worried by an uncertain future."⁵ In 2016 the school had 247 postdoctoral scholars, about half of the university total.⁶

provincial funding bodies—first the AHFMR and now Alberta Innovates.

A source of pride for the school has been the active role it has played in global health. These contributions span both training and research that has occurred in Calgary and around the world.

Clinical Care

The extent and quality of the health-care resources available to the school have obviously had a significant impact on its academic mission. On the other hand, the school’s ability to train needed practitioners, attract highly skilled clinicians and researchers, create knowledge, and foster innovation has benefited the local health-care system as well. Over the years, this bidirectional flow has been evident.

The Cumming School of Medicine has faced challenges when it comes to adapting to the changing organizational structure for health services in Alberta. When the school was founded, affiliation agreements with hospitals and other agencies had to be developed. The most important one was with the Foothills Provincial General Hospital, which Premier Manning envisioned in 1958 as a medical centre “designed after the Mayo Clinic.”⁴³ When opened in 1966, Dr. J. Donovan Ross, the provincial minister of health, said that it would be the major teaching facility for the new medical school.⁴⁴

The relationship between the two did have its trying moments, as we have seen, but overall this was a mutually beneficial partnership.⁴⁵ The same

can be said for the agreements struck with other hospitals and agencies. When regionalization occurred, these affiliation agreements became null and void. Concurrently, closures limited clinical opportunities for students, residents, and faculty. Learning to work effectively with the Calgary Health Region, whose focus was on the delivery of health services—not teaching and research—became a vital task for the U of C school’s leadership group. The need to adapt to changing circumstances at this time led to a number of innovative developments, such as the creation of Calgary Laboratory Services.⁴⁶ The founding of Alberta Health Services, an even larger provincial entity (at its launch it was the largest single health authority in Canada, the largest employer in Alberta, and the fifth-largest employer in Canada) potentially less responsive to local issues and concerns, necessitated another round of negotiations to develop effective channels of communication and mechanisms for collaborative action.

Social Accountability

Medical schools have an obligation to direct their education, research, and service activities toward the broadly defined health priorities of the community they serve.⁴⁷ The U of C School of Medicine’s commitment to these priorities dates to its founding, which, as has been noted, occurred in response to the Hall Commission’s call for increasing national physician training capacity. Indeed, as Dean Cochrane wrote in 1972, one of the “responsibilities of any modern medical school

should be the periodic assessment of its educational program as an effective response to public needs and expectations.”⁴⁸ At the time of the school’s founding, there was an expectation among the public that it would address local requirements for physicians. This expectation has been met. Between 1972–3 and 2014–15, the Cumming School of Medicine had 3,216 MD graduates. Over half (n = 1,790) of them currently reside in Alberta, with 1,315 (40.9 per cent of the total) working in Calgary.

A core principle of medical schools’ social accountability has to do with ensuring physicians appreciate the importance of maintaining competence and the value of the patient-physician relationship.⁴⁹ The U of C school’s curriculum has always sought to foster the attitudes and skills required for life-long learning, so its graduates could adapt to changes in medical practice and community need during their vocational life span. As described by Dean Cochrane, graduates of the U of C school should adopt the attitude of “once a student, always a student.”⁵⁰ Likewise, the school sought to emphasize the centrality of the physician-patient relationship through the early introduction of patient contact. Other highly valued principles of the Cumming School of Medicine have included conducting ethically sound, curiosity-driven research, providing evidence-based care, and translating research into practice.⁵¹ The preceding chapters and accompanying appendices give numerous examples of student-, faculty-, and institution-initiated activities that have served these aspirations.

The Cumming School of Medicine’s current mission, as described in the 2015–20 strategic plan, is to “Fulfill our social responsibility to be a school in which the common goal of improved health guides service, education and research . . . [and] foster the collective pursuit of knowledge and its translation, through education and application, to better the human condition.”⁵²

A direct assessment of a medical school’s ability to improve health in a region is not possible, as there are too many inputs to identify specific and certain causal linkages. However, benchmarking efforts comparing health-care performance and/or population-level health status for various regions provide some indirect evidence of the Cumming School’s impact in Calgary. A review of available data indicates no evidence of harm and the following possible benefits:

- In 2000, *Maclean’s* magazine ranked fifty Canadian regions in terms of health-care provision. Calgary ranked fifth among the fourteen communities with a medical school (which, collectively, tended to score higher than communities without one) and ninth overall.⁵³
- In 2016, the Conference Board of Canada released the first issue of the *City Health Monitor*.⁵⁴ This examined the health performance of ten Canadian metropolitan areas (Vancouver, Calgary, Edmonton,

Saskatoon, Winnipeg, Toronto, Ottawa, Montreal, Québec City, and Halifax) using twenty-four indicators grouped into four categories. Calgary finished second overall, receiving an overall A grade, though Calgary fared relatively worse in the “access to health care services” category (based on the percentage of the population with a regular family physician and the per capita number of specialists, nursing/midwifery personnel, and hospital beds), with a particularly low grade on access to hospital beds.

- The Canadian Institute for Health Information now provides community-level indicators on the performance of the local health-care system and population health. In 2017, the Calgary region scored above average on seventeen of the thirty-five indicators considered, average on seventeen, and below average on only one.⁵⁵
- At a provincial level, some evidence suggests that the investment in research through the AHFMR that occurred during the 1980s, and which built local research capacity, led to a measurable health benefit for Albertans compared to those residing in other provinces.⁵⁶

Past, Present, and Future

In 1995, Dean Smith co-authored an article in the *Calgary Herald* justifying the existence of two medical schools in Alberta. The reasons given included the training of physicians to meet provincial requirements, the benefits of research, improving access to quality medical care, and the local financial impact.⁵⁷ This book has sought to provide a partial picture of how the U of C school has created knowledge, trained highly qualified professionals, and improved the quality and breadth of local health services. This chapter has so far noted the number of physicians the school has added to the provincial pool and provided indirect evidence of the health benefits to Calgarians of having a medical school. What follows aims to address the school’s financial impact.

Nationally, the seventeen Canadian faculties of medicine and their affiliated teaching hospitals were responsible for \$66.1 billion in quantifiable economic activity and more than 295,000 full-time jobs in 2012–13.⁵⁸ Though we have no direct data for the Cumming School of Medicine, we know that in 2011–12 the U of A Faculty of Medicine and Dentistry was responsible for nearly \$2 billion in economic activity and 13,517 jobs.⁵⁹ These estimates do not include wealth created by research commercialization or capture social benefits such as enhanced community attractiveness to practitioners, researchers, entrepreneurs, and newcomers that arise from having a medical school. In 2014–15, seven Calgary post-secondary institutions—the U of C among them—had an

estimated total economic impact on the regional economy of \$8.6 billion.⁶⁰ For every dollar spent by provincial taxpayers, there was a return of \$3.50.⁶¹

The successful reviews of the U of C medical school by the Committee on Accreditation of Canadian Medical Schools and Liaison Committee on Medical Education, our postgraduate medical education programs by the two national colleges, and the continuing medical education office by the Committee on the Accreditation of Continuing Medical Education, all speak to the academic quality of the institution. Though at times the school's reputation has suffered in the wake of less rigorous evaluations (for example, in *Maclean's* magazine university rankings during the 1990s),⁶² the Cumming School of Medicine is viewed as a vibrant institution that plays an important regional, provincial, national, and international role. Geoffrey Cumming's generous gift, matched by the provincial government, will allow the U of C school to build on areas of strength and attract (and retain) the best people.⁶³ Without doubt, the future will hold equivalent challenges to those faced by the school over the last fifty years, but they will, to use Bertram Carr's memorable phrase, be met with the spirit of "the optimist to whom every difficulty is an opportunity, and not as the pessimist, to whom every opportunity presents some difficulty."⁶⁴

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Geoff Cumming

In June 2014, the University of Calgary's school of medicine was rebranded the Cumming School of Medicine in honour of the generous \$100-million donation from businessman Geoff Cumming, in turn matched by the Alberta government. Cumming explained that, "Looking out 10-20 years, Calgary looks very strong to me, and in the medical field we need to put the foundations in properly and hire the best people and build out the team that will do the research over the next two decades. This is Year 1, and it's an important one."¹ Cumming's donation to the faculty hoped to stimulate cutting-edge research in the fields of brain and mental health, and infections, inflammation, and chronic diseases. Cumming stated, "When you go into the labs and spend time with medical researchers, you find incredibly talented individuals. Bright and driven, they are capable of making important advances into diseases and disorders where we currently have only limited understanding."²

A U of C alumnus (BA economics 1974), Cumming runs an investment firm in Calgary, and has had a successful career in the energy and financial sectors. Both his parents have

ties to medicine. His father, Harold, was a Kingston physician with connections to the Queen's University School of Medicine, and his mother was involved with the medical admissions committee there. Cumming explained that his gift was also a tribute to his parents. Beyond the good fortune of being born in Canada, Cumming claimed that "the extent to which I have enjoyed success in my life, the credit should go to my family."³

Like many others, Cumming was drawn westward to Calgary by the promise of opportunity and the grandeur of the Rocky Mountains. He hoped that his donation would tempt others to follow his footsteps and attract the foremost medical minds to Calgary. The *Globe and Mail* reported that "Mr. Cumming wants to attract the best researchers to the university, with the promise that his money will help them spend less time writing grant application proposals and more time doing the research work that changes the world."⁴ University president Elizabeth Cannon said of Cumming's "transformational" gift that, "At the end of the day, you're trying to bring world-class talent to the University of Calgary, who in turn bring other talent, younger talent, and great students."⁵

Aside from his name adorning the Cumming School of Medicine, the philanthropist-businessman was granted an honorary degree in 2016. His recommendations to graduates were: to surround oneself with leading, honest, and vigorous colleagues; to preserve and maintain a determination to achieve; and to have a meaningful and impactful influence on the community and environment.⁶ In their own praise of their benefactor and

alumnus, university representatives stated that "Cumming feels strongly that a balanced society must offer high quality healthcare, education and environmental stewardship. He is passionate about global leadership and mentorship of young people, and believes a diverse education is one of the keys to becoming a successful global citizen. His incredible vision, leadership and generosity make him an excellent model and mentor for the next generation of global citizens."⁷

Table 1: Comparison of 1972-3 with 2011-12

	1972-3	2011-12
Calgary population	424,787	1,120,225
Faculty budget (current CDN dollars)	\$2,526,777	\$60,319,583
Faculty budget (adjusted for inflation—2017 CDN dollars)	\$13,596,960	\$64,970,970
Number of endowed chairs	0	52
Size of dean's office	4 including assistant deans	13 plus assistant deans
Number of MD graduates	27	172



*Deans Cochrane, Watanabe, Smith, and Gall,
November 2006, admiring the new faculty additions*

Credit: Robert Lampard

Dean Biographies

Dean Cochrane

Dr. William A. Cochrane, the last founding dean of the four medical schools recommended by the Hall Royal Commission in 1964, passed away on 6 October 2017.¹ Dean Cochrane's passing closed an era in Canadian academic medicine not to be repeated. MD enrollment doubled between 1966 and 1970 to 1,600 per year, increasing the number of Canadian MD graduates particularly in Calgary and Hamilton. This national response brought Canada temporarily into MD self-sufficiency as it faced the projected population increase from the post-Second World War baby boom, a marked increase in immigration, together with the planned universal Medicare program (1968) and the gradual doubling of the doctor-patient ratio to 1 per 500.

Two of the new deans (Drs. William Cochrane and John Evans) realized it was an opportunity to implement a unique clinically orientated curriculum. Both chose to design theirs as a three-year, continuously taught, body-system-based program that included a full clinical clerkship year. They remain the only three-year programs in North America—an approach much favoured by their own graduates.

Dr. Cochrane's own career was a Canadian dream. He was the son of a Fegan Homes orphan who came to Canada from England in 1908. Born in Toronto on 18 March 1926, he rose to prominence as a natural athlete, receiving the “athletic stick” award in his last year of high school for exceptional athletic and academic performance. Dr. Cochrane was inspired by his family's physician and encouraged by his mother to start his medical training in 1944 instead of joining the navy.

After graduation in 1949, Dr. Cochrane chose pediatrics because he loved working with families and their sick children. In the laboratory his research focused on the causes of nondiabetic hypoglycemia. He discovered the protein leucine caused one form of it and developed the Cochrane test to diagnose it.²

An established clinical researcher by age thirty-one, Dr. Cochrane was offered the first pediatric GFT post at Dalhousie in 1958. He would become the Halifax Children's Hospital pediatrician in chief and the professor and head of pediatrics in 1963.

Foreseeing the need to expand pediatric services in Halifax, Dr. Cochrane proposed building an entirely new referral hospital to replace the Children's Hospital in 1960. The funding for it focused on Dorothy J. Killam (1900–1965), the widow of Nova Scotia magnate Isaac Walton Killam. Coincidentally, she was looking for a project to honour her husband.³ Dr. Cochrane persuaded her to pledge \$1 million toward the proposed hospital. (It became \$3 million after a site visit.) When she died a short time later, her will contained an \$8 million donation toward the eventual \$24 million cost.

Four months before the release of the Hall Report in June 1964, Dr. Cochrane joined the faculty's Medical Curriculum Review Committee.⁴ It would be a career-changing decision. The committee visited several American schools for exceptional students, including the system-based curriculum that had evolved at Cleveland's Western Reserve Medical School in the 1950s. However, the recommended transition from a traditional curriculum to a system-based one was not accepted by the faculty.

After the release of the report in 1966, Dr. Cochrane began looking elsewhere to implement its recommendations—to the Universities of Toronto and of Manitoba, as well as various schools in the United States. Everywhere the basic

science departments objected to the proposed changes. The only Canadian opportunity left was the medical school at the U of C, whose establishment had been called for in the 1964 Hall Commission. When the dean's position opened for competition in the fall of 1966, Dr. Cochrane was asked to apply for it.

During his two visits, Dr. Cochrane found that all the local academic and government health leaders were willing to leave the design of the curriculum to the new dean—so long as the program had an FP focus. Offered the position, Dr. Cochrane accepted the deanship early in Canada's centennial year.

His timing was not propitious. Universities were under intense pressure at the time to increase their capital and operating budgets so as to face the baby boom explosion in student numbers. New faculties were being postponed or delayed. Growing at up to 25 per cent per year, the U of C was particularly affected.

Dr. Cochrane began his deanship by writing a philosophy and program statement to acquaint prospective recruits and selected his new faculty. To design and implement the curriculum, the dean relied heavily on the voluntary contributions of the medical community. The result was a Calgary "can do" success story.⁵

The school was built in two and a half years at \$5 million dollars under budget and with the use of a novel project-management approach. The surplus was used to renovate the warehoused research space, bringing the total cost to develop the Foothills Hospital site to \$56 million by 1973.

Convocation of the first class coincided with the university's opening ceremonies, in June 1973. The faculty were ecstatic when the first class earned above-average marks on their LMCCs. It confirmed that a curriculum based on a combination of didactic presentations, small-group teaching, and self-learning could be successful. As research groups formed, they, too, were organized by body system, an approach that was well ahead of its time. The curriculum remained essentially unaltered until 1992, when it was modified to focus on the 120 most common medical diagnoses that patients present to their physician.⁶

Dr. Cochrane resigned as dean after the first class convoked and accepted the deputy minister of health position offered to him by Premier Lougheed. He wanted to learn how governments made decisions, having faced many as dean. The next year he was asked to advise the U of C's new President Selection Committee. To his surprise they offered him the position. With the Premier's agreement, Dr. Cochrane accepted it and became one of only eight Canadian MDs who have attained the position of university president. In this role he weathered the last of the government's fiscal curtailment period and began the innovative Faculties of Law and Humanities.⁷

With the Alberta Heritage Savings Trust Fund approved in 1976, Dr. Cochrane participated in the preliminary discussions on the formation of a separate AHFMR.⁸ He anticipated research dollars would flow to the two medical faculties in Alberta in unprecedented amounts. They did, beginning in 1980.

Connaught Laboratories began courting Dr. Cochrane by appointing him to their board; he eventually relented and accepted the CEO position, in 1978. It was a risky decision as the vaccine maker was losing money. His corporate strategy was to sell its patent for making insulin, concentrate on genetic engineering, focus on producing high-volume vaccines for flu and polio, and expanding into the United States. Connaught was sold for almost \$1 billion in 1989.

Returning to Calgary, he incorporated William A. Cochrane and Associates as a business and health-care consulting firm. Dr. Cochrane joined many boards, several of which he chaired, including the Banff Centre. When called upon, he spoke articulately of the need for Canada to invest in biotechnology as a path into the future.⁹

In retirement, Dr. Cochrane continued to support his favourite community organizations and made many trips to China to foster pediatric programs there. He also had more time to spend with his wife Phyllis (Potts) and their four children (Stephen, Gillian, Paul, and James).

Widely known and respected, Dr. Cochrane was made the Medicine Chief of the Stoney Band, awarded two LLDs, a DSc, an Order of Canada, and was named one of Alberta's one hundred doctors of the century. He became the second Calgary physician to be inducted into the Canadian Medical Hall of Fame in 2010.

Six thousand U of C MDs owe a debt of gratitude for his leadership, for as he often said (quoting Longfellow):

Look not mournfully at the past

It comes not back again;

Wisely improve the present—it is
thine;

Go forth to meet the shadowy future

Without fear, and with a joyful heart.

—Henry Wadsworth Longfellow, *Hyperion*

Dean McLeod

Lionel McLeod was born in Wainwright, in rural Alberta, in 1927. As a youngster he studied classical music and learned to play jazz, on both the trumpet and the saxophone, by ear. His grandfather wanted him to choose a career in farming, but his mother, who was on the school board, always said, “You will get an education first.” His medical interest evolved from trips to Edmonton as a teenager with his father, the local funeral director and later ambulance operator.

Selected as one of five non-veterans for entry into the U of A medical program in 1945, he distinguished himself by earning the Friends of the U of A bursary (1946), the Rankin Prize in Bacteriology (1948), the CPSA Award in Pathology/Bacteriology (1950), and by maintaining a first-class standing. During his university summers he

worked as a truck driver, until he suffered a serious crash.

Barbara, “his best friend” and the mother of their four children, met Lionel while they were both students. They were engaged the night he graduated in 1951. After interning he joined the Wallace Clinic in Wainwright. The McLeods’ first home was above the family garage. After six months at the Wallace clinic, he received an MRC fellowship, which took him to the University of Minnesota (1953–5) to study endocrinology and respiratory medicine. Dr. McLeod finished his training at the Royal Victoria Hospital as a clinical research fellow (1955–7), studying the effect of aldosterone on the size of body fluid compartments, and earning an MSc in 1957. Near the end of his research he received a scratch from a laboratory rat resulting in a near fatal anaphylactic shock. He received his FRCP that year from U of A dean and RCPSC president Dr. John Scott, before going on a two-month R. S. McLaughlin Traveling Fellowship to visit several American medical schools.

Dr. McLeod very much admired Dr. Donald Wilson, the professor and head of medicine at the U of A, who enticed him to return to Edmonton. There he received a five-year Markle Scholarship (1958–63), and assumed the management of Dr. Wilson’s endocrinology lab. Initially a lecturer in biochemistry and medicine, he was promoted to assistant professor (1959), associate professor (1963), and full professor (1966).¹⁰

In 1962 Dr. McLeod was elected the honorary class president. The class president was Joe Martin,

who would later become the dean of medicine at Harvard.¹¹ Appointed the director of the new Division of Nephrology, Dr. McLeod performed the first successful renal dialysis outside the United States on 21 December 1962 using a Kiil dialyzer and a new Quentin-Scribner arteriovenous shunt.¹² Thus began the first chronic renal dialysis program outside the United States.

Treating renal dialysis patients was not without risk. In 1965 Dr. McLeod and his senior resident Dr. Morris Davidman both developed serum hepatitis (now hepatitis B). They spent a month in hospital in serious liver failure. Two years later, in 1967, Dr. McLeod assisted Dr. William Lakey in performing the first renal transplant at the U of A.

In the mid-1960s, Dr. McLeod began making national commitments, first as a charter member of the Canadian Society of Nephrologists, becoming its second president in 1966–7. He then joined the Clinical Investigation Board (1968–71); the APMC Board (1973–80), becoming its president (1979–80); and the CCHA Board (1975–7), which he also chaired (1976–7). He had previously joined the RCPS(C) Board (1972–90), becoming its president (1982–4). He also joined a host of community boards.

In 1968 Dr. McLeod applied for the professor and head of medicine position at the U of T. On hearing of his interest, Dr. Cochrane asked him if he was interested in the same position at the still nascent medical school in Calgary. After reading Dr. Cochrane's philosophy and program statement in the CMAJ, Dr. McLeod was enticed to come to Calgary by the challenge.¹³ This marked the

beginning of a thirteen-year career at the U of C, which included eight years as the dean.

As the second U of C dean, Dr. McLeod led the medical school's consolidation and growth from \$3 million to \$11 million per year, while the faculty and residents saw three- and four-fold growth, respectively. With Dr. Mel Kerr, he visited the new Faculty of Medicine in Kathmandu, Nepal in 1981, where began the U of C faculty's first international collaborative project.¹⁴

Following the announcement that the new Alberta Heritage Savings Trust Fund would support "brain industries," Dr. McLeod and his faculty, with assistance from U of A dean Dr. Donald Cameron, developed a proposal for a provincial medical research fund and presented it to Premier Lougheed and his cabinet. The request evolved and became the fully funded Alberta Heritage Foundation for Medical Research in 1980. When the AHFMR president's position opened in 1981, Dr. McLeod successfully applied for it. In this role he was instrumental in implementing the premier's vision from 1981 to 1990.¹⁵

As AHFMR president, Dr. McLeod established a Scientific Advisory Council to approve grants, initiated the funding plan to construct two new medical research buildings on the U of A and U of C campuses (1984–6), hosted the first International Board of Review (1986), and established a milieu unmatched elsewhere in the world.¹⁶ He began the first clinical investigation grants (1986), started a technical transfer program (1987), and funded senior medical research positions at the

two medical schools, increasing them from zero to over one hundred.

In 1989 Dr. McLeod began planning for his retirement. He accepted an appointment as the vice-president (medical) of the UBC/Shaugnessy/Darby hospitals in Vancouver, becoming their president in 1992. His untimely death three weeks after a pancreatic cancer diagnosis in 1993, and two months before his retirement, cut short a productive life. The L. E. McLeod Promising Medical Researcher Scholarship was funded by his family, friends, and the AHFMR; it aims to help young researchers from Alberta or British Columbia.

Dr. McLeod received many awards. The most prestigious included a DSc (U of A, 1988) and honorary LLDs from Queen's (1990) and the U of C (1992). He was named one of the one hundred Alberta Doctors of the Century in 2005.

Dr. McLeod drew up no master plan for his career, for as he said, "life is rather like a good walk. Every so often your toe strikes something; you look down and oddly enough it's exactly what you need at that moment."¹⁷ Speaking at Dr. McLeod's funeral, one colleague eulogized: "His greatest achievement and source of satisfaction was helping young people get started in a career in service and in the practice of medicine."¹⁸

Dean Watanabe

Mamoru Watanabe was the eighth of ten children born into a wealthy Japanese Canadian family shortly before the beginning of the Second World War. His father was in the logging business. He

lived in Vancouver until age nine, when, in October 1942, in response to the bombing of Pearl Harbor a year before, all Japanese Canadian students were expelled from the public schools they were attending and their families were forcibly evacuated to the interior of British Columbia.¹⁹ The Watanabe family ended up in Lemon Creek, in the Kootenay Mountains. Initially, his education continued through informal arrangements sponsored by church and community organizations.²⁰ Once the Lemon Creek community became established, the school system was formalized, and the educational curriculum was stabilized.

Dr. Watanabe's desire for education was not easily satisfied. At the end of the war, the Watanabe family was relocated to another internment camp, Bay Farm, also in the Kootenay region. At the start of the school year, Mamoru and his two sisters walked the three miles to the public school in nearby Slocan City, only to be rebuffed. Mamoru pointed out that he and his sisters were Canadians and deserved an education, and they returned the next day, stood at the back of the room, and simply listened to what other students were being taught. They did this every morning until they could stay. According to Dr. Watanabe, "I think my interest in education stems from the fact that I was denied it once."²¹

After a month in Bay Farm, the Watanabe family was moved to another internment camp in New Denver Orchard, which was also in the Kootenay region; Mamoru and his sisters henceforth attended public school in the town of New Denver. However, this arrangement was short-lived, as the

government in British Columbia soon required all Japanese Canadians to leave the province by 28 February 1948 and either return to Japan or move east of the Rockies. After negotiating with the government to allow him to finish the school term, the Watanabe family moved to Montreal, where Mamoru attended an English-speaking high school. Here he picked up the nickname “Mo,” as his French teacher could not pronounce Mamoru; according to Watanabe, “it stuck.”²² At the end of his first year in Montreal, Mamoru’s grade 9 teacher asked if he would like to study grade 10 courses on his own during the summer months, write exams in the fall, and, if successful, skip to grade 11, the final high school year in Quebec. He jumped at this opportunity and succeeded in catching up with his age group. He graduated from high school with honours and then attended McGill University.²³

Early in life, Mo decided that he wanted to be a doctor. As he later explained:

Becoming a doctor was a boyhood dream, although how that evolved is not clear to me. I had been told from a young age that not all professions were available to Japanese Canadians, and my older brother was a physician, so these factors might have been an influence. While I was an undergraduate student at McGill University, I considered the possibility of engineering or architecture, but I found that I was more interested in biolog-

ical sciences and came to the conclusion that medicine might be the right choice.²⁴

Dr. Watanabe completed almost all his university education at McGill, first earning his BSc in 1955, followed by his MD, CM in 1957. Upon entering medical school, he planned to become a general practitioner, but the Royal Victoria Hospital did not have a family medicine program. According to Dr. Watanabe:

My original idea about being a physician was to become a general practitioner and I think it was on the minds of others too—they thought I should be a general practitioner, practising in a rural community looking after “my kind of people.” That unflattering characterization, while realistic for the times, ticked me off enormously. Also, I knew that Japanese Canadians preferred to see a “white” doctor when they were “really” sick. So, I became a specialist and that leads you automatically toward an academic career—although there were people who advised me that there was no place for visible minorities in specialties or in academia. I was not good at taking advice!²⁵

Dr. Watanabe’s postgraduate clinical training, including his internship, junior assistant residency

(postgraduate year 2) in internal medicine, clinical fellowship, and senior assistant residency in internal medicine, was all based at the Royal Victoria Hospital between 1957 and 1963. Dr. Watanabe explained how he picked internal medicine:

In the final analysis, I think it was the intellectual challenge of internal medicine, the understanding of the basic mechanisms of disease that intrigued me the most. However, I think it was internal medicine that chose me rather than me choosing internal medicine. During my rotating internship I enjoyed pediatrics and obstetrics, and during my undergraduate years I considered psychiatry. . . . but even before starting my rotating internship, I was already committed to internal medicine due to a series of events which I attribute to destiny.²⁶

His explanation for how he decided to pursue a research career and a PhD is as follows:

I loved clinical medicine and, although immodest, I think I was a very good clinician. After my RI and JAR years, though, I began to wonder if I was doing things by rote. I was beginning to worry that I might not be able to problem solve, deal with abstract thoughts. I wanted to understand the basic causes of disease, to

be able to problem solve and view diseases from new and different perspectives. I needed to know that I could still think on my own. So, I decided to take a year away from clinical training to expand my horizons through medical research. I then decided that if I was going to be involved in research, I should subject myself to the rigorous discipline of research, not just play at research—so I decided to enrol in a PhD program, a three-year commitment.²⁷

Dr. Watanabe became a fellow of the Royal College of Physicians of Canada in internal medicine and obtained his PhD in 1963. Next, he undertook a research postdoctoral fellowship in molecular biology at Albert Einstein College of Medicine in New York City from 1963 to 1965. Afterwards, he was asked to stay on there as a basic science faculty member.²⁸

Dr. Watanabe rose through the academic ranks rapidly, serving as an assistant professor (molecular biology) for only one year (1966–7) at Albert Einstein, and then, upon relocating to the U of A, as an associate professor (medicine and biochemistry) for only three years (1967–70). At the end of the fourth year of his academic career, he was promoted to full professor of medicine at U of A. Once he was recruited to the U of C, he immediately became professor and head of internal medicine.

Dr. Watanabe was attracted to the U of C because of his association with Dr. McLeod and because of the department's research groups. But there was also another reason. According to Dr. Watanabe:

Something else at the U of C had caught my attention. The founding dean, Bill Cochrane, and his initial education team developed an undergraduate medical curriculum that emphasized the concepts of independent study, self-directed learning, and learning at your own pace. This philosophical orientation resonated with my educational experiences throughout all my years of schooling, especially during the war years when [my] schooling was disrupted . . . and substituted by makeshift arrangements where learning was informal and dependent on personal responsibility. My curiosity was aroused; it made me want to learn more about the curriculum and become a participant in this endeavour. In my initial visits to the U of C, I sensed among the faculty the energy and excitement of an emerging venture setting new directions and pathways in undergraduate medical education and in administrative structures, which undoubtedly helped to overcome my reticence about moving into administrative positions, and

influenced my decision to accept the offer to join the U of C, while I reluctantly set aside my sense of loyalty to the U of A, which had been so generous in welcoming me into their academic fold. I was not aware of it then, but this might have been the starting point of what evolved into a new career trajectory.²⁹

After two years as department head (1974–6), Dr. Watanabe was appointed as associate dean (education).³⁰ Dr. Watanabe would later describe this transition as follows:

David Dickson was the inaugural associate dean of education and he stepped down in 1974. A search committee was in place, which I was not aware of. I believe Dr. Clarence Guenter was chair of the search committee. He came to me and said that the committee felt I would be a perfect associate dean and really needed me to take on the position. I am not sure how this assessment was arrived at but when I first joined U of C, the Division of Educational Planning and Assessment encountered a problem with their in-house final exams for the second-year graduating class when 50 to 60 per cent of the students failed. David Dickson asked for my assistance, so I reviewed the exam

and came to the conclusion that the examination was faulty. I had the benefit of having been responsible for the endocrine exams at the U of A, where I had worked with experts in evaluation in the RCPSC McLaughlin Centre. But at this point I had been head of medicine for only two years and felt I should not be abandoning the department, so I agreed to do the associate dean position if I could maintain my role as head of medicine. Unfortunately, I suffered a mild heart attack and, assuming that it was the workload causing my problems, administration suggested that I give up one of the positions. I stayed with the associate dean's position.³¹

Dr. Watanabe served as associate dean (education) from 1976 to 1980, at which point he became associate dean (research) for one year. Dr. Watanabe served as the acting dean from 1981 to 1982 before serving two full terms as dean from July 1982 until June 1992. After that, from 1992 until 1997, Dr. Watanabe served as professor of medicine, and he has been emeritus professor since 1997. From 2004 to 2007, Dr. Watanabe was also an adjunct professor in the Community Health Program at the University of Northern British Columbia at Prince George.³² Watanabe, who never planned to be an administrator, started his research career as a basic scientist; he held MRC operating grants as principal investigator continuously from 1967

to 1988, and he regularly published basic science papers, primarily in the *Journal of Steroid Biochemistry*, for two decades.³³ Toward the end of his deanship, Dr. Watanabe recognized that he needed to curtail his basic sciences program and diversify:

I certainly continued my research work during my first term but in my second term I told the president of U of C that I was going to have to give it up because I will be way out of the current knowledge base, so that's when I stopped doing basic research. . . . But what I ended up doing was switching my research interest more to health services, mostly as a result of the physician workforce issue and my work on the Medical Services Utilization Committee. . . . It's difficult to maintain your research and be competitive because you need to keep abreast of the latest findings and the current literature, and that's hard to do when you are immersed in administration. I was used to working at Albert Einstein in a pure research environment, and if research is what you do all day long then keeping up with the literature is easy to do, but when you get into a clinical world, where you are teaching and engaged in clinical work, it's very hard to compete internationally and nationally in

both arenas. You have to pick the kind of research that nobody else is doing so that at least you're not competing with large laboratories and people who are dedicated solely to research.³⁴

Therefore, in the late 1980s, Dr. Watanabe's research foci broadened to include clinical research on hypertension, medical education research, telemedicine, evidence-based decision-making, and health-care reform. His first peer-reviewed publication was in 1960 and his last in 2009—an amazing forty-nine-year span! By the end of his research career, Dr. Watanabe's expertise had grown to encompass what is now called the four pillars of health research: biomedical, clinical, health systems/services, and population health.

However, the breadth of expertise acquired over Dr. Watanabe's more than fifty-year career served the faculty, university, government, and population of the province well, and has been put to good use since his retirement, as he served on several dozen committees and volunteer boards until 2012. This included eight different federal committees, task forces, or advisory boards for Health Canada.³⁵

Dr. Watanabe received many awards and honours over his career, including an honorary DSc from the U of A (1997), an LLD from the University of Northern British Columbia (2007), becoming an officer of the Order of Canada (2001), and recipient of the Queen Elizabeth II Diamond Jubilee Medal (2012).³⁶

Dean Smith

Dr. Eldon Raymond Smith was born in a small Nova Scotia farming community about thirty kilometres from Halifax. He received his medical degree cum laude from Dalhousie University in 1967. Following training in internal medicine and cardiology in Canada, the United Kingdom, and the United States, Dr. Smith joined the Faculty of Medicine at Dalhousie. He moved to Calgary in 1980 as professor and head of the Cardiology Division at both Foothills Hospital and the U of C. In 1985, he became head of the Department of Medicine and appointed associate dean (clinical affairs) of the faculty five years later. From 1992 to 1997, Eldon Smith was dean of the U of C Faculty of Medicine.

A strong link exists between Atlantic Canada and the U of C. Two of the Faculty of Medicine's first four deans (Cochrane and Smith) came from Dalhousie University, while Dean Feasby, as will be seen, was born in Halifax. Dean Smith knew William A. Cochrane when he was a student and for a while considered a career in pediatrics. After Dr. Cochrane moved to Calgary, Dean Smith kept in contact with him, though Dr. Cochrane played no specific role in his recruitment to the U of C.³⁷ During most of Dean Smith's tenure, F. Murray Fraser (1937–1997), who was raised in Nova Scotia, was president of the university (he served from 1988 to 1996). He died on the 12 March 1997 from heart failure, just eight months after retirement; he was fifty-nine.³⁸ Joy D. Calkin, dean of the Faculty of Nursing (1985–9) and provost/vice-president

(academic) (1990–7), was also from Nova Scotia; she began her academic career at the University of New Brunswick. Keith Winter, vice-president (finance and services) (1991–2002) was from Newfoundland. Though not a native of Atlantic Canada or a member of the U of C, Matthew W. Spence (president and CEO of the AHFMR from 1990 to 2003),³⁹ played a critical role in influencing the fortunes of the faculty at the time and was recruited from the I. W. Killam Hospital for Children in Halifax and Dalhousie, where Dr. Smith knew him. Not surprisingly, there was tongue-in-cheek commentary of a “Maritime Mafia” controlling the U of C.

Dr. Smith’s research interests include circulatory mechanics, exercise physiology, and echocardiography. He has published more than 250 papers and book chapters. Over the years he has served as editor-in-chief of the *Canadian Journal of Cardiology* (1997–2010), president of both the Canadian Cardiovascular Society and the Association of Canadian Medical Colleges, and on many boards, including AHFMR, Alberta Health Professions Advisory Board, the premier’s Advisory Council on Health in Alberta, and Alberta Health Services. Dr. Smith is an emeritus professor of medicine at the U of C, chairs the advisory board of the Libin Cardiovascular Institute of Alberta, and founded the Peter Lougheed Medical Research Foundation. Nationally, he chaired the steering committee that oversaw the development of the Canadian Heart Health Strategy and Action Plan.⁴⁰

Dean Smith has received numerous honours and awards. These include an Order of the

University of Calgary, a citation from the Senate of the Philippines for aid in developing medical education in that country, the 2005 Medal of Service from the Canadian Medical Association, the 2007 James H. Graham Award of Merit from the Royal College of Physicians and Surgeons of Canada, the 2007 AsTECH Award, the 2012 Medal for Distinguished Service from the Alberta Medical Association, and a Diamond Jubilee Medal. Dr. Smith was named an officer of the Order of Canada (2005) and received an honorary LLD from Dalhousie University (2014).⁴¹

Dean Gall

A native of Saskatchewan born in Moose Jaw and raised on a farm near Acme, Alberta, D. Grant Gall received both his undergraduate degree (from 1958–61) and medical degree (1961–5) from the U of A in Edmonton, eventually graduating with his MD in 1965. His postgraduate training began at the Vancouver General Hospital with an internship from 1965 to 1966. He then went to the Boston City Hospital for a year, followed by a year at the Hospital for Sick Children in Toronto, and then a three-year fellowship in metabolic and endocrine disease at the Boston City Hospital, made possible through a McLaughlin Travelling Fellowship provided by the Division of Pediatric Gastroenterology at the Hospital for Sick Children in Toronto.

While at Boston, he was an instructor in pediatrics at Harvard (1968–71) and Boston Universities (1969–71). He then accepted a one-year appointment as an assistant professor in

the Division of Pediatrics at the U of C Faculty of Medicine. Returning to Toronto, he worked at Sick Kids, remaining there until 1979.⁴² During that time he rose through the academic ranks, from assistant professor (1972–7) to associate professor (1977–9); he remained a staff physician on the wards through these six years in the Division of Gastroenterology at the Hospital for Sick Children. In 1979, Dr. Gall accepted the position of head of the Division of Pediatric Gastroenterology and Nutrition at the U of C and moved to Alberta for the rest of his professional career. His tenure was interrupted for two months in 1980, when he accepted four visiting professorships in Australia: at the Princess Margaret Hospital for Children in Perth, Western Australia, the Adelaide Children’s Hospital in Adelaide, South Australia, as guest professor at the Royal Children’s Hospital in Brisbane, Queensland, then at the Prince of Wales Children’s Hospital in Sydney, New South Wales, ending at the Royal Alexandria Children’s Hospital in Sydney. He often referred to this as “grand tour” Down Under.

Dr. Gall was a medical leader in the Child Health Program, as well as the head of the Regional Department of Pediatrics, when the Calgary Health Region existed.⁴³ He was appointed to the undergraduate Gastrointestinal Course Committee from 1979 to 1984, and oversaw five master’s students’ theses and four PhD students during his career. Thirteen summer students worked in his research laboratory at the Alberta Children’s Hospital Research Institute between 1983 and 1997. At the postgraduate level, Grant Gall was an

active member of the Gastrointestinal Residency Training Committee from 1980 to 1989, and thirty clinical and research fellows in pediatric gastroenterology and nutrition worked with him. His administrative service was extensive, with five departmental committee memberships, forty-four on the faculty level, thirty-one on the university level, along with fourteen committee memberships in the Calgary Regional Health Authority.

At the provincial level, he was a member of seven committees. Nationally and internationally, he sat on eleven committees, while holding six board positions on community organizations, associations, and research funding bodies. His most impactful roles included ten years on the Executive Faculty Council, chairman of seventeen department head search committees, adviser to the vice-president of the U of C and to three university-wide research centres, as well as ten years on the Alberta Children’s Hospital Research Foundation Board, and the Calgary Regional Health Authority Board (1996–2007).

Dean Gall was a member of grant review committees for the Medical Research Council of Canada (now the Canadian Institutes for Health Research) in the 1980s, and later a scientific officer and chair of the Committee on Experimental Medicine. He was a member of three committees for the AHFMR and a committee of the American National Institute of Health. Personal recognition of Dean Gall’s accomplishments has included being named the U of A Medical Alumnus of the Year in 1997, being inducted into the Order of the University of Calgary in May 2008, undertaking

a distinguished visiting professorship at the University of Concepción in Chile, and receiving the Distinguished Service Award from the Faculty of Veterinary Medicine at the University of Calgary in June 2008. Internationally, Dr. Gall was elected president of the Inter-American Association of Gastroenterology in recognition of his influence on the clinical and research fields in pediatric gastroenterology.

As principal investigator, co-investigator, or collaborator on major research grants, Grant Gall received grants amounting to approximately \$6,210,000, from the 1980s to the early 2000s, from the Medical Research Council of Canada and the National Institutes of Health Research in the United States. In 1995, he was granted an international patent governing the pharmaceutical “use of epidermal growth factors as a gastrointestinal therapeutic agent” (serial no. 08/438,901, filed 10 May 1995).

During his thirty-five-year-long active academic career as a gastrointestinal researcher, he gave 146 presentations nationally and internationally, published 142 co-authored and peer-reviewed journal articles, gave 12 non-reviewed papers, and wrote 19 book chapters and 181 abstracts of conference proceedings.

On July 1997, Dr. Gall accepted the position of dean of the U of C Faculty of Medicine, which he held for two consecutive terms, from 1997 to 2007.⁴⁴

Dean Feasby

The son of Dr. Wilf (1920–1999) and Jean Isobel (née Erskine) (1919–2015) Feasby, Thomas Erskine

Feasby was born on 4 June 1945, in Halifax, Nova Scotia, received his MD from the University of Manitoba (1969), interned at the Toronto Western Hospital (1969–70), and did a neurology residency at the University of Western Ontario (1970–4). This was followed by a research fellowship (1975–7) at the Institute of Neurology, Queen Square in London.

He then joined the faculty of the University of Western Ontario (as of 2012 Western University), eventually serving as chief of the Department of Clinical Neurological Sciences (1988–91). The first house he and his wife bought in London had been occupied the previous year by Alice Munro, who won the Nobel Prize in Literature in 2013, during her time as writer-in-residence at Western. In 1991, Dr. Feasby came to Calgary as head of the Department of Clinical Neurosciences, a position he held until 2002. From his time as department head in the mid-1990s, he is particularly proud of his role in establishing the Calgary Stroke Program. He served as its first director, a position he held until he was able to recruit Dr. Alastair Buchan to Calgary. He views it as “perhaps the best stroke program in the world.”⁴⁵

After stepping down as department head, Dr. Feasby spent six months with the RAND Corporation (an American non-profit global policy think tank), where he had completed a sabbatical during the 1997–8 academic year. Dr. Feasby then went to Edmonton before returning to the U of C in 2007 as dean. Between 2003 and 2007 he served as vice-president, academic affairs (Capital Health Region, Edmonton) and associate dean,

clinical affairs (Faculty of Medicine and Dentistry, U of A).⁴⁶ His duties included developing the health-service research capabilities of the Capital Health Region. More recently, Dr. Feasby has served as the chief health officer of the Airdrie and Area Health Co-operative.⁴⁷

Dr. Feasby has authored over 160 peer-reviewed publications. His research interests include demyelination, neuropathies, Guillain-Barré syndrome, and health-service research on medical procedures for neurological conditions such as carotid endarterectomy, intravenous immunoglobulin, and MRI scanning for lower back pain. His many honours include an Alberta Medical

Association Medal for Distinguished Service (2014) and honorary Doctor of Science from the University of Western Ontario (2013). His convocation address challenged the graduates to work together to build a future of opportunity for all and always tackle challenges with a sense of optimism.⁴⁸ For his various contributions to the U of C Faculty of Medicine, Dr. Feasby's colleagues created the Tom Feasby Graduate Award in Global Health, and the faculty's student lounge was named after him.⁴⁹ In 2016 he received a Rhodes Trust Inspirational Educator Award. In December 2017 he was named a member of the Order of Canada.⁵⁰

Appendix 1

Historic Milestones

1822	First medical school in Canada established in Montreal at McGill University
1867	Health care enshrined as a provincial responsibility in the British North America Act
1867	Canadian Medical Association formed
1875	Fort Calgary established with small infirmary service personnel and their families
1884	Canadian Pacific Railroad reaches Calgary and with it, the town's first civilian practitioner, Dr. Andrew Henderson (1853–1935)
1890–1	Calgary General and Holy Cross Hospitals open
1905	North-West Territories divided into two new provinces, Alberta and Saskatchewan
1905	Alberta Medical Foundation formed from the North-West Territories Medical Association
1912	Canada Medical Act passed, establishing the Medical Council of Canada
1913	Faculty of Medicine and a three-year program established at the University of Alberta in Edmonton
1925	First MD graduates from the University of Alberta
1929	Royal College of Physicians and Surgeons established
1937	Holy Cross Hospital accepts its first intern
1948	Calgary General Hospital accepts its first intern
1964	Hall Royal Commission on Health Services recommends a new medical school in Calgary
1965	Minister of Health Dr. Donovan Ross announces a \$25 million medical school for Calgary

- 1966 Premier of Alberta, Ernest Manning, announces plans for a faculty of medicine at the University of Calgary on the Foothills Hospital site
- 1966 University of Calgary becomes independent from the University of Alberta
- 1966 Foothills Hospital opens with 766 beds and its own board
- 1967 Dr. William (Bill) A. Cochrane was designated the first dean of the Faculty of Medicine at the University of Calgary
- 1968–70 Joint department heads appointed by the Foothills Hospital and Faculty of Medicine
- 1968–9 Internship and residency programs initiated at the Foothills Hospital (known since 1944 as the “University of Alberta at Calgary”)
- 1970 University of Calgary medical school accepts its first class of thirty students in a three-year, continuously taught program
- 1970 University of Calgary School of Nursing accepts its first class of fifty students
- 1971 Canada Medical Care Act provides universal medical insurance in all ten provinces
- 1972 PhD program in health sciences approved
- 1973 Dr. Lionel E. McLeod becomes the second dean of the U of C Faculty of Medicine
- 1973 First class of twenty-eight medical students graduate from the Faculty of Medicine in the newly opened Faculty of Medicine
- 1973 PhD program in medical sciences is established
- 1974 Dr. William (Bill) Cochrane appointed the third president of the University of Calgary
- 1975 Government of Alberta announces plans for an Alberta Heritage Savings Trust Fund; funding is to include “brain industries”
- 1978 Hippocrates statue donated to the Faculty of Medicine and erected in the atrium of the Health Sciences Centre
- 1980 Alberta Heritage Foundation for Medical Research established with an endowment of \$300 million

- 1981 Dr. Mamoru (“Mo”) Watanabe becomes the third dean of the Faculty of Medicine
- 1988 Heritage Medical Research Building completed
- 1991 First Annual History of Medicine Days Conference held
- 1992 Dr. Eldon R. Smith becomes the fourth dean of the Faculty of Medicine
- 1994 McCaig Institute for Bone and Joint Health established
- 1994 The first international medical student is admitted to the Faculty of Medicine
- 1994 University of Calgary budget decreases by 11 per cent, and the Faculty of Medicine budget by a similar amount
- 1994 All provincial hospital boards are replaced by a set of regional boards, including the Calgary Health Region Board
- 1997 Dr. D. Grant Gall becomes the fifth dean of the Faculty of Medicine
- 1997 “Leaders in Medicine” program founded
- 1999 Seaman Family Magnetic Resonance Centre established
- 2002 O’Brien Bachelor of Health Sciences established
- 2003 Alvin and Mona Libin Foundation donate \$15 million, to create the Cardiovascular Institute
- 2003 Faculty of Medicine international activities extend to over twenty-two countries
- 2003–9 McCaig Bone and Joint Centre (adjacent to the Foothills Hospital) is planned, built, and opened
- 2004 Hotchkiss Brain, Arnie Charbonneau Cancer, Maternal and Child Health, and Ward of the 21st Century (W21C) established
- 2004 *UCalgary Medicine* magazine begins publication (previously *Your Faculty*)
- 2005 Aboriginal Careers in Medicine Office approved
- 2006 Alberta Children’s Hospital moves to the University of Calgary, one kilometre from the Foothills Hospital site
- 2006–10 REACH! fundraising program raises \$312 million to strengthen existing programs and raise standards in others

- 2007 Dr. Tom Noseworthy and Dr. Robert Haslam named members of the Order of Canada, joining Drs. Cochrane, McLeod, Watanabe, Smith, Powell, Church, Kinsella, and Dixon, and to be followed later by Drs. Sutherland, Knudtson, and Guenter
- 2007 Dr. Tom E. Feasby appointed the sixth dean of the Faculty of Medicine
- 2007 NeuroArm, the world's first MRI-compatible surgical robot, begins operating
- 2007–10 Health Research Innovation Centre and Teaching, Research, and Wellness buildings are opened in several phases
- 2008 Alberta government abolishes existing health regions and replaces them with the Alberta Health Services Board
- 2008 Dr. Samuel Weiss awarded Gairdner International Award for his discovery of neural stem cells in the adult brain
- 2008 University of Calgary Faculty of Veterinary Medicine founded and located in the Health Research Innovation Centre
- 2008 The Aboriginal Health Program begins
- 2009 Snyder Institute for Chronic Diseases established
- 2009 Alberta Children's Hospital Research Institute for Child and Maternal Health approved
- 2009 Calgary Institute for Population and Public Health established (renamed O'Brien Institute for Public Health in 2014)
- 2010 Canadian Medical Hall of Fame inducts Faculty of Medicine inaugural dean Dr. William (Bill) A. Cochrane
- 2011 Duke and Duchess of Cambridge visit the Faculty's Ward of the 21st Century Research and Innovation Centre
- 2012 First class of the University of Calgary Faculty of Veterinary Medicine graduates
- 2012 Dr. Jon Meddings appointed the seventh dean of the Faculty of Medicine
- 2014 Faculty of Medicine receives \$200 million from Geoffrey Cumming and the Government of Alberta; medical faculty is renamed as the Cumming School of Medicine

Appendix 2

Faculty Institutes and Major Research Centres (to 2020)

Research Institute	Opened	Directors	Major Donations
Julia McFarlane Diabetes Research Centre	1986	2002- : Pere Santamaria 2002-4: David C.W. Lau	Donation: \$1.25 million (1979-83) (matched by the province)
Former names:		1988-2002: Ji-Won Yoon	Year: 2008
<i>Julia McFarlane Diabetes Research Unit (1983)</i>		1983-88: Daniel A. K. Roncari	Donor: John Thompson and family
Arnie Charbonneau Cancer Institute	2003	2013- : Gregory Cairncross	Donation: undisclosed
Former names:		2009-13: Stephen Robbins	Year: 2014
<i>Southern Alberta Cancer Research Institute (2003)</i>		2007-9: Peter Forsyth	Donor: Arnold "Arnie" Charbonneau
Research group:		2005-6: Christopher Brown	
<i>Cancer Biology Research Group</i>		2005: Susan Lees Miller (interim)	
		2004-5: Christopher Brown	

Research Institute	Opened	Directors	Major Donations
Alberta Children's Hospital Research Institute for Child and Maternal Health Former names: <i>Institute of Child and Maternal Health (2004)</i> <i>Child Health Research Centre (1994)</i> <i>Child Health Research Group (1990)</i> <i>Genetics Research Unit (1982)</i> <i>Behavioral Research Group (1978)</i>	2004	2018- : Susa Benseler 2009-18: R. Brent Scott 2007-9: Leon Browder (acting) 2006-7: R. Brent Scott (acting) 2004-6: James (Jay) Cross	
Calvin, Phoebe and Joan Snyder Institute for Chronic Diseases Former names: <i>Calvin, Phoebe and Joan Snyder Institute (2008)</i> <i>Institute of Infection, Inflammation, and Immunity (2004-8)</i>	2008	2004- : Paul Kubes	Donation: 2008: \$9 million Year: 2008 Donor: Joan Snyder
Libin Cardiovascular Institute of Alberta	2004	2009- : Todd Anderson 2004-9: Brent Mitchell	Donation: 2004: \$15 million Year: 2004 Donor: Alvin and Mona Libin

Research Institute	Opened	Directors	Major Donations
Hotchkiss Brain Institute	2004	2018- : David Park 2017-18: Keith Sharkey (Interim) 2004-17: Samuel Weiss	Donation: \$15 million Year: 2004 Donor: Harley and Rebecca Hotchkiss
McCaig Institute for Bone and Joint Health	2008	2016- : Steven Boyd 2015: Marvin Fritzler 2009-14: Nigel Shrive 2007-8: David Hart 2004-7: Cy Frank 2002-4: Nigel Shrive 1999-2002: Robert Bray 1996-9: Ron Zernicke 1993-5: David Hart 1988-93: Cy Frank	Donation: \$10 million (2017) Year: 1992 Donor: Project Motion and McCaig Family
Prior research groups/centres: <i>McCaig Centre for Joint Injury and Arthritis Research (1992)</i> <i>Joint Injury and Arthritis Research Group (1988)</i> <i>Musculoskeletal Research Group (1984)</i>			
O'Brien Institute for Public Health	2010	2010-2020: William Ghali 2020-present: Thomas H. Stelfox	Donation: 2009: \$12 million Year: 2009 Donor: David and Gail O'Brien
Former names: <i>Institute for Public Health (2014)</i> <i>Calgary Institute for Population and Public Health (2010)</i>			

Research Centre	Opened	Directors	Major Donations
Seaman Family Magnetic Resonance Centre	September 1999	<p>2017- : Robert Sevick (Medical Director)</p> <p>2017- : Brad Goodyear (Scientific Director)</p> <p>2010-17: Mayank Goyal (Medical Director)</p> <p>2010-17: Richard Frayne (Scientific Director)</p> <p>2007- : Garnette Sutherland (Intra- operative Program Director)</p> <p>2007-9: Mayank Goyal (High Field Program Director)</p> <p>2005-9: Robert Sevick (Scientific Director)</p> <p>1998-2005: Robert Sevick (High-field Program Director)</p> <p>1998-2005: Garnette Sutherland (Scientific Director)</p>	

Research Institute	Opened	Directors	Major Donations
Calgary Centre for Clinical Research	2005	Medical Directors	
		2014- : Derek Exner 2009-14: Michael Hill 2007-9: Samuel Wiebe 2005-7: Robert Sheldon	
		Operational Leads/ Directors	
		2016- : Sabine Moritz 2010-15: Shane Lacusta 2005-8: Francine “Fran” Heinrich	
W21C	April	2013- : Jill de Grood	
Former name: <i>Ward of the 21st Century</i>	2004 (within Calgary Health Region) August 2009 (within University of Calgary)	2011-13: Shandra Harman 2010-11: Carmella Duchscherer (maternity leave coverage for Shandra Harman) 2009-10: Shandra Harman (under University of Calgary) 2004-9: Shandra Harman (under Calgary Health Region) Medical Director: John Conly (2013-present); Scientific Director: William Ghali	

Research Institute	Opened	Directors	Major Donations
Brenda Strafford Centre on Aging	2011	2011- : David Hogan	
Mathison Centre for Mental Health Research and Education	2012	2015- : Paul Arnold 2012-15: Andrew Bulloch	Donation: \$10.8 million 2012: \$10 million Year: 2012 Donor: Ronald P. Mathison

Appendix 3

Approved Residency Programs

Residency Program	Year Established	Residency Program	Year Established
General Surgery	1969	*Medical Microbiology	1984-1998
Family Medicine	1969	Endocrinology and Metabolism (adult)	1985
Pediatrics	1969	Nephrology (adult)	1985
Anatomical Pathology	1970	*Nuclear Medicine	1985-2000
Anesthesiology	1970	Infectious Diseases (adult)	1986
Internal Medicine	1970	Medical Oncology	1986
Neurosurgery	1970	Endocrinology and Metabolism (pediatric)	1988
Obstetrics and Gynecology	1970	Gastroenterology (pediatric)	1988
Psychiatry	1970	Infectious Diseases (pediatric)	1988
Orthopedic Surgery	1971	Respirology (pediatric)	1988
Diagnostic Radiology	1975	Neonatal-Perinatal Medicine	1989
Plastic Surgery	1975	Neuropathology	1990
Rheumatology (adult)	1975	Medical Genetics	1991
Respirology (adult)	1978	Critical Care Medicine (adult)	1991
Neurology (adult)	1980	Gynecologic Oncology	1993
Gastroenterology (adult)	1980	Neuroradiology	1995-2003*
Cardiology (adult)	1981	New Application	2011
Public Health and Preventive Medicine	1981	General Surgical Oncology	1996
Emergency Medicine	1982	Radiation Oncology	2000
Neurology (pediatrics)	1982	Geriatric Medicine	2000
Pediatric Neurology	1982	Pediatric Emergency Medicine	2001
Hematology	1984	Palliative Medicine	2001

Residency Program	Year Established
Pediatric Surgery	2002
Physical Medicine and Rehabilitation	2003
Thoracic Surgery	2003
Otolaryngology—Head and Neck Surgery	2004
Vascular Surgery	2004
Colorectal Surgery	2004
Pediatric Hematology/Oncology	2004
Cardiac Surgery	2005
Ophthalmology	2005
Maternal-Fetal Medicine	2006
Pediatric Nephrology	2006
Developmental Pediatrics	2007
Dermatology	2009
Clinician Investigator Program	2009
General Pathology	2012
Child and Adolescent Psychiatry	2014
General Internal Medicine	2014
Medical Microbiology	2015
Pain Medicine	2016
Clinical Pharmacology and Toxicology	2017

* Withdrawn in 2003. Reapproved in 2011

Source: Royal College of Physicians and Surgeons of Canada;
College of Family Physicians of Canada.

Appendix 4

Endowed Chairs and Professorships

Created	Chair/Professorship	Current Holder* (year appointed)	Past Holders
1985	HSF Chair in Cardiovascular Research	Wayne Chen (2017)	Henry Duff (2004); Wayne Giles (1995); Christopher Triggles (1990)
1987	Campbell McLaurin Chair Hearing	Jun Yan (2013)	Jos Eggermont (1997)
1987	Arthritis Society Chair in Rheumatic Disease/Rheumatology	Ann Clarke (2013)	Marv Fritzler (1999)
1988	Julia McFarlane Chair in Diabetes Research	Pere Santamaria (2002)	Ji Won Yoon (1996)
1989	Novartis Chair in Schizophrenia Research	Jean Addington (2008)	Gerald Zamponi (1999); Brian MacVicar (1994)
1989	Jessie Boden Lloyd Prof.	Chris Mody (2004)	Jon Reynolds (1992)
1990	Brenda Strafford Foundation Chair in Geriatric Medicine	Jayna Holroyd-Leduc (2018)	David Hogan (1992)
1991	Crohn's and Collitis Foundation Chair in Inflammatory Bowel Disease Research	Keith Sharkey (2005)	John Wallace (1994)
1992	Merck Chair in Cardiovascular Research	Todd Anderson (2011)	Vacant (2004); Henk ter Keurs (1994)
1993	ACHF Chair in Pediatric Research	Brent Scott (1999)	
1993	Andrew Family Professorship in Cardiovascular Research	William Cole (2005)	Henry Duff (1997)
1994	Grace Glaum Professorship	Roman Krawetz (2013)	David Hart (1999)

Created	Chair/Professorship	Current Holder* (year appointed)	Past Holders
1994	HSF Chair in Stroke Research	Andrew Demchuk (2010)	
1995	AMF/Hannah Professorship in the History of Medicine (and Health Care)	Frank Stahnisch (2008)	Peter Cruse (1996); William Whitelaw (1999)
1995	Svare Professorship in Health Economics	Braden Manns (2014)	Herb Emery (2007); Cameron Donaldson (1995)
1997	Brenda Strafford Foundation Chair in Alzheimer Research	Marc Poulin (2012)	Minh Dang Nguyen (2011); Chris Power (2002)
1997	McCaig Professorship in Joint Injury and Arthritis	Steven Boyd (2012)	Cy Frank (1997)
1999	Parkinson's Society of Southern Alberta/Suter Professorship in Parkinson's Research	Bin Hu (2006)	Oksana Suchowersky (2000)
2000	John A. Buchanan Chair in General Internal Medicine	William Ghali (2003)	
2001	Calvin, Phoebe and Joan Snyder Chair in Critical Care Research	Paul Kubes (2005)	
2001	Roy and Joan Allen Professorship in Sight Research Professorship	Fiona Costello (2013)	Torben Bech-Hansen (2001)
2002	ACHF-KCCF Chair in Pediatric Oncology	Jennifer Chan (2015)	Vacant (2006); Max Coppes (2003)
2002	ACF Chair in Brain Tumor Research	Gregory Cairncross (2002)	
2003	Engineered Air Chair in Cancer Research	Susan Lees-Miller (2003)	
2004	GSK Professorship in Inflammatory Lung Disease	Richard Leigh (2006)	
2005	ACHF Barb Ibbotson Chair in Pediatric Hematology	Faisal Khan (2010)	Vacant (2005)

Created	Chair/Professorship	Current Holder* (year appointed)	Past Holders
2005	ACHF Professorship in Pediatric Surgery	Frankie Fraulin (2014)	David Sigalet (2006)
2005	Dr. Frank Leblanc Chair in Spinal Cord Injury	Patrick Whelan (2017)	Peter Stys (2007)
2005	Enbridge Research Chair in Psychosocial Oncology	Linda Carlson (2007)	
2005	Lance Armstrong Chair in Molecular Cancer Epidemiology	David Brenner (2017)	Winston Chung (2016); Hans Vogel (2011)
2005	Arthur J. E. Child Chair in Rheumatology Research	Deborah Marshall (2012)	John Esdaile (2010)
2006	ACHF Dr. Robert Haslam Chair in Pediatric Neurology	Jong Rho (2010)	
2006	ACHF Professorship in Child Health and Wellness	Stephen Freedman (2015)	Brent Hagel (2005)
2007	ACHF Husky Energy Chair in Child and Maternal Health	Brent Scott (1999)	
2007	Roy and Vi Baay Chair in Kidney Research	Brenda Hemmelgarn (2011)	
2008	ACHF Cuthbertson and Fischer Chair in Pediatric Mental Health	<i>Currently vacant</i>	Frank MacMaster (2010)
2008	ACHF Professorship in Pediatric Rehabilitation	Carolyn Emery (2009)	
2008	Hopewell Professorship in Brain Imaging	Richard Frayne (2010)	
2009	Hopewell Professorship in Clinical Neurosciences Research	Sam Wiebe (2010)	
2009	N. B. Hershfield Professorship in Therapeutic Endoscopy	Steve Heitman (2013)	
2009	Sutherland Professorship in GI/IBD Research	Simon Hirota (2013)	

Created	Chair/Professorship	Current Holder* (year appointed)	Past Holders
2010	Cal Wenzel Family Foundation Chair in Hepatology	Mark Swain (2010)	
2010	ACF The Weekend to End Women's Cancer Chair in Breast Cancer Research	Christine Friedenreich (2012)	
2010	Ohlson Family Professorship in Head and Neck Surgery	Joseph Dort (2008)	
2011	Tourmaline Oil Chair in Parkinson's Disease	Oury Monchi (2014)	
2011	Bob and Nola Rintoul Chair in Bone and Joint Research	Steven Boyd (2012)	
2011	HSF-HBI Professorship in Stroke Research	Michael Hill (2012)	
2011	HSF-Libin Professorship in Cardiovascular Research	Wayne Chen (2012)	
2012	Katthy Taylor Chair in Vascular Dementia	Eric Smith (2012)	
2012	Director, Mathison Centre for Mental Health Research & Education	Paul Arnold (2015)	
2012	Cal Wenzel Family Foundation Endowment in Cardiometabolic Disease	Mark Swain (2010)	Paul Raschke (2012)
2015	David Freeze Chair in Health Research	Marcello Tonelli (2014)	

*Current chairs as of December 2015.

Source: Cumming School of Medicine, Core Facilities and Strategic Projects.

Appendix 5

Select International and National Award Recipients

Year	Award	Recipient
1974	Rhodes Scholarship	William Hughson
1975	Rhodes Scholarship	Jonathan Heston
1981	Rhodes Scholarship	Erik Pioro
1985	Rhodes Scholarship	William Gnam
1989	Order of Canada	William Cochrane
1993	Order of Canada	Gordon Dixon
1994	Order of Canada	T. Douglas Kinsella
2000	Rhodes Scholarship	An-Wan Chan
2000	Order of Canada	Robert Church
2000	3M National Teaching Fellowship	Allan Jones
2000	3M National Teaching Fellowship	Donald Kline
2000	Canadian Medical Association Medal of Service	William Cochrane
2001	Order of Canada	Mamoru Watanabe
2005	Canadian Medical Association Medal of Service	Eldon Smith
2005	Order of Canada	Eldon Smith
2006	Order of Canada	D. Gregory Powell
2007	William E. Rawls Prize	Linda Carlson (Oncology)
2007	Order of Canada	Robert Haslam
2007	Order of Canada	Thomas Noseworthy
2007	Heart & Stroke Foundation of Canada's Leadership Award in Heart Healthy Policy 2007	Norm Campbell (Medicine/ Pharmacology and Therapeutic/ Community Health Sciences)

Year	Award	Recipient
2007	Distinguished Service Award, Canadian Geriatrics Society	David B. Hogan
2008	Award for Improvement of Social Infrastructure/Condition (specifically for his work with the Sudanese Physician Reintegration Program) (co-funded by the Canadian International Development Agency [CIDA] and Canadian Manufacturers & Exporters [CME])	Rod Crutcher (Family Medicine)
2008	Canadian Nurses Association Centennial Award	Kathryn J. Hannah (Community Health Sciences)
2008	Osler Award from the 2008 Canadian Society of Internal Medicine	Robert Herman (Medicine)
2008	Duncan Graham Award, Royal College of Physicians and Surgeons	John Parboosingh (Professor Emeritus of Medical Education and Obstetrics and Gynaecology)
2008	World Federation of Hemophilia 2008 International Healthcare Volunteer Award	Man-Chiu Poon (Medicine, Pediatrics, and Oncology)
2008	Gairdner International Award	Samuel Weiss
2008	Canadian Cardiovascular Congress Annual Achievement Award	George Wyse (Cardiac Sciences, and Medicine)
2009	Canadian Association for Medical Education, Ian Hart Award for Distinguished Contribution in Medical Science	Jocelyn Lockyer
2009	Canadian Medical Hall of Fame	William Cochrane (President Emeritus)
2009	Dr. Rogers Prize for Excellence in Complementary and Alternative Medicine	Badri Rickhi (Department of Psychiatry)
2009	Colitis Foundation of Canada Research Leadership Award 2009	Keith Sharkey (Department of Physiology and Pharmacology)
2009	Canadian Society for Clinical Investigation 2009 Distinguished Scientist Award	Morley Hollenberg (Departments of Pharmacology and Therapeutics and Medicine)

Year	Award	Recipient
2009	Canadian Cardiovascular Society Distinguished Teacher Award	Israel Belenkie (Department of Medicine)
2009	Canadian Rheumatology Association Distinguished Rheumatologist Award 2009	Martin Atkinson (Department of Medicine)
2009	College of Family Physicians of Canada Jean-Pierre Despins Award 2009	Richard Ward (Department of Medicine)
2009	Canadian Health Services Research Foundation—Research Advancement Award	Peter Norton (Department of Family Medicine)
2009	College of Family Physicians of Canada Lifetime Achievement Award in Family Medicine Research	Wayne Elford (Professor Emeritus of Family Medicine)
2009	Royal College of Physicians and Surgeons of Canada 2009 Prix d'excellence for Region 1	Cheri Nijssen-Jordan (Department of Pediatrics)
2009	Association of Physical Medicine & Rehabilitation Award of Merit	John Latter (Department of Pediatrics)
2009	Royal College of Physicians and Surgeons 2009 RAC 1 Prix d'excellence	Maria Bacchus (Department of Internal Medicine)
2010	Order of Canada	Clarence Guenter
2010	RCPSC Prix d'excellence 2010	David B. Hogan
2010	RCPSC Mentor of the Year Royal College Region 1	M. Elizabeth MacRae
2010	Royal College of Physicians and Surgeons of Canada—2011 Duncan Graham Award	Henry Mandin
2010	RCPSC/Associated Medical Services Donald Richards Wilson Award	Otto Rorstad
2010	Canadian Federation of Medical Students Faculty Teaching Award	Morton Doran
2010	Canadian Association for the Study of the Liver—Distinguished Service and Meritorious Achievement	Eldon Shaffer
2010	John R. Graham Clinicians' Forum Award—American Headache Society	Werner Becker

Year	Award	Recipient
2010	2010 Canadian Medical Association Award for Young Leaders	Laura Stinton
2010	CSCI/Royal College Henry Friesen Award and Lecture (2010)	Paul Kubes
2010	Michael S. Pessin Stroke Leadership Prize—American Academy of Neurology	Shelagh Coutts
2010	US National Center for Responsible Gambling (NCRG) 2010 Scientific Achievement Award	David Hodgins
2010	Innovations in Neuropsychopharmacology Research Award	Sam Weiss
2011	Rhodes Scholarship	Braden O'Neill
2011	Canadian Institutes of Health Research, Health Researcher of the Year	Paul Kubes
2011	Royal Society of Canada McLaughlin Medal	Morley Hollenberg
2011	Royal College of Physicians and Surgeons of Canada Region 1—Mentor of the Year Award	Suzette Cooke (Pediatrics)
2011	Canadian Association of Gastroenterology—Education Excellence Award	Eldon Shaffer (Medicine)
2011	Canadian Association of Interns and Residents—Derek Puddester Resident Well-being Award	Keith Wycliffe-Jones (Family Medicine)
2011	Canadian Medical Association 2011 Young Leaders Award (student category)	Dave Campbell (medical student)
2011	Association of Faculties of Medicine of Canada—Outstanding Contribution to Faculty Development in Canada	Lara Cooke (Clinical Neurosciences)
2011	Canadian Anesthesiologists Society—Clinical Teachers of the Year	David Archer (Anaesthesia and Clinical Neurosciences)
2011	Royal College of Physicians and Surgeons of Canada—Program Director of the Year award	Joel Fox (Anaesthesia)
2011	Society of Obstetricians and Gynecologists of Canada—Distinguished Service Award	Douglas Wilson (Obstetrics and Gynaecology and Medical Genetics)

Year	Award	Recipient
2011	Canadian Psychiatry Association—C. A. Roberts Award for Clinical Leadership	Donald Addington (Psychiatry)
2011	Canadian Pediatric Society—Distinguished Neonatologist Award	Reginald Sauve (Community Health Sciences and Pediatrics)
2011	Canadian Diabetes Association—Gerald S. Wong Service Award	Stuart Ross (Medicine and Community Health Sciences)
2011	Canadian Institutes of Health Research—Researcher of the Year award	Paul Kubes (Physiology and Pharmacology, Medicine, Critical Care Medicine, and Microbiology, Immunology and Infectious Diseases)
2011	Canadian Association of Gastroenterology—Research Excellence Award	Paul Kubes (Physiology and Pharmacology, Medicine, Critical Care Medicine, and Microbiology, Immunology and Infectious Diseases)
2011	Canadian Association of Radiation Oncology RAZCER Award	Corrine Doll (Oncology)
2011	CIHR-CMAJ Top Achievements in Health Research	William Ghali, Merrill Knudtson, and Diane Galbraith (Approach Team)
2011	Canadian Society of Microbiology Murray Award for Career Achievement	George Chaconas (Biochemistry and Molecular Biology and Microbiology, Immunology and Infectious Diseases)
2011	American College of Chest Physicians—Alton Ochsner Award	Shabih Hasan (Pediatrics)
2011	American Neurological Association—Wolfe Research Prize for Investigators Identifying New Causes or Novel Treatments of Axonal Peripheral Neuropathy	Douglas Zochodne (Clinical Neurosciences)
2011	Lotte & John Hecht Memorial Foundation—Rogers Prize for Excellence in Complementary & Alternative Medicine	Marja Verhoef (Community Health Sciences and Medicine)

Year	Award	Recipient
2011	Governor General Gold Medal Award	Dustin Anderson (MD/PhD Candidate, University of Calgary)
2011	Royal Society of Canada McLaughlin Medal	Morley Hollenberg (Physiology and Pharmacology and Medicine)
2011	Order of Canada	Garnette Sutherland (Department of Clinical Neurosciences)
2012	Order of Canada	Merrill Knudtson (Departments of Cardiac Sciences/Medicine)
2012	CSCI/RCPSC Henry Friesen Award 2012	Morley Hollenberg (Departments of Physiology and Pharmacology/ Medicine)
2012	NSERC Brockhouse Canada Prize (for ground-breaking work in glycobiology)	Glen Armstrong and colleagues (Department of Microbiology, Immunology and Infectious Diseases)
2012	Royal College of Physicians and Surgeons of Canada Medal Award	Brenda Hemmelgarn (Departments of Medicine/Community Health Sciences)
2012	American Gastroenterological Association— Research Mentor Award	Paul Beck (Department of Medicine)
2012	American Institute of Ultrasound in Medicine— Joseph H. Holmes Clinical Pioneer Award	Stephanie Wilson (Departments of Diagnostic Imaging/Medicine)
2012	American Society for Surgery of the Hand— Andrew J. Weiland Medal for Outstanding Research	Kevin Hildebrand (Department of Surgery)
2012	Canadian Association of Gastroenterology Education Excellence award	Sylvain Coderre (Department of Medicine)
2012	Canadian Association of Interns and Residents— Dr. Joseph Mikhael Award for Medical Education	Lara Cooke (Department of Clinical Neurosciences)

Year	Award	Recipient
2012	Canadian Association of Professors of Medicine— Ronald Christie Award	John Conly (Departments of Medicine/Pathology and Laboratory Medicine/ Microbiology, Immunology and Infectious Diseases)
2012	Canadian Medical Association Misericordia Award	Dianne Maier (Department of Psychiatry)
2012	Canadian Nutrition Society Centrum New Scientist Award	Raylene De Bruyn (nee Reimer) (Department of Kinesiology/ Biochemistry and Molecular Biology)
2012	Canadian Society for Immunology Cinader Award	Paul Kubes (Departments of Physiology and Pharmacology/ Medicine/Critical Care Medicine/ Microbiology, Immunology and Infectious Diseases)
2012	Chron's and Colitis Foundation of Canada— Finkelstein Award 2012	Remo Panaccione (Department of Medicine)
2012	Hypertension Canada J. G. Fodor Award For Prevention And Control Of Hypertension	Norman Campbell (Departments of Medicine/Physiology and Pharmacology/Community Health Sciences)
2012	Jessica Kerber Researcher for Stroke Prevention and Aftercare, Heart & Stroke Foundation	Paul Kubes (Departments of Physiology and Pharmacology/ Medicine/Critical Care Medicine/ Microbiology, Immunology and Infectious Diseases)
2012	Johnson Award, Queens University 2012	Janice Heard (Department of Pediatrics)
2012	NASA Exceptional Engineering Achievement Medal	Doug Hamilton (Department of Medicine)

Year	Award	Recipient
2012	Royal College Accredited CPD Provider Innovation Award	Jocelyn Lockyer, Dr. Claudio Violato, and colleagues at CPSA (Departments of Community Health Sciences)
2012	Royal College of Physicians and Surgeons of Canada prix d'excellence Region 1 2012	Keith Brownell (Departments of Clinical Neurosciences/Medicine)
2012	Society of Radiologists in Ultrasound—Lawrence A. Mack Lifetime Achievement Award	Stephanie Wilson (Departments of Diagnostic Imaging/Medicine)
2012	AESKU Award for Lifetime Contribution to Autoimmunity	Marvin Fritzler (Departments of Medicine / Biochemistry and Molecular Biology)
2012	Canadian Cancer Society—Dr. Peter Geggie Award for Outstanding Community Engagement	Barry Bultz (Department of Oncology)
2012	Distinguished Achievement Award—Outstanding Contributions to Biomedical Research by Pakistan-Canada Association	Naweed Syed (Departments of Cell Biology and Anatomy/Physiology and Pharmacology)

Source: Cumming School of Medicine, Fund Development.

Appendix 6

Deans, Vice Deans, Associate Deans, and Assistant Deans

Dean:	William Cochrane (1967-73)	Lionel McLeod (1973-81)	Moramu Watanabe (1981-92)	Eldon R. Smith (1992-7)	D. Grant Gall (1997-2007)	Thomas Feasby (2007-12)
Vice Dean:					Hans van de Sande (1998-2005)	R. Brent Scott (2008-9)
					Pam A. Sokol (2005-7)	Jon B. Meddings (2010-12)
Senior Associate Deans:						Clinical Affairs: Ronald J. Bridges (2011-12)
						Education: Benedikt Hallgrimsson (2009-12)
						Research: Richard B. Hawkes (2009-12)

Dean:	William Cochrane (1967-73)	Lionel McLeod (1973-81)	Moramu Watanabe (1981-92)	Eldon R. Smith (1992-7)	D. Grant Gall (1997-2007)	Thomas Feasby (2007-12)
Associate Deans:	Clinical Affairs: John W. Dawson (1968-72)	Professional Services: Lionel McLeod (1973-9)	Clinical Services: Eldon R. Smith (1991-2)	Clinical Services: D. George Wyse (1993-7)	Clinical Affairs: D. George Wyse (1998-9); Martin H. Atkinson (2000-7)	Clinical Affairs: Ronald J. Bridges (2008-10)
	Instructional Resources: Stanley Rowlands (1968-72)	Education: A. David Dickson (1973-1976) Moramu Watanabe (1977-80)	Education: John Baumber (1982-8)	Graduate Clinical Education: A. Keith Brownell (1993-7)	Graduate Clinical Education: Jill D. Nation (1998-2007)	Post Graduate Medical Education: Joanne M. Todesco (2008-12)
	Professional Affairs: Lionel McLeod (1972-3)	Continuing Medical & Graduate Medical Education: Gerald M. McDougall (1980-1)	Graduate Clinical & Continuing Medical Education: Gerald M. McDougall (1982-8); A. Keith Brownell (1989-90)	Continuing Medical Education: John T. Parboosingh (1993); John Toews (1994-7)	Continuing Medical Education: John Toews (1998-2004); Bruce J. Wright (2005-6); Jocelyn Lockyer (2007)	Graduate Sciences Education: Frans A. van der Hoorn (2007-12)
	Education: A. David Dickson (1972-3)	Research: Keith L. MacCannell (1973-4); Warren Veale (1974-80); Robert B. Church (1980-1); Moramu Watanabe (1981)	Graduate Clinical Education: A. Keith Brownell (1991-2)	Undergraduate Education: Henry Mandin (1993-6); Allan R. Jones (1997)	Undergraduate Medical Education: Allan R. Jones (1998-2006); Bruce J. Wright (2007)	Undergraduate Science Education: Benedikt Hallgrimsson (2008); Anthony B. Schryvers (2009-12)

Dean:	William Cochrane (1967-73)	Lionel McLeod (1973-81)	Moramu Watanabe (1981-92)	Eldon R. Smith (1992-7)	D. Grant Gall (1997-2007)	Thomas Feasby (2007-12)
Research: Keith L. MacCannell (1972-3)			Continuing Medical Education: John T. Parboosingh (1991-2)	Research: D. Grant Gall (1993); Hans van de Sande (1993-6); Marvin J. Fritzler (1996-7)	Graduate Sciences Education: Pamela A. Sokol (1997-2000); R. Hawkes (1999-2003); Frans A. van der Hoorn (2004-7)	International Global Health: Taj Jadavji (2008-9); J. M. Hatfield (2010-12)
			Undergraduate Education: Henry Mandin (1989-92)		Undergraduate Science Education: Benedikt Hallgrimsson (2005-7)	Faculty Assessment & Development: Kamala D. Patel (2012)
			Research: Robert B. Church (1982-8); D. Grant Gall (1989-92)		Rural & Regional Affairs: Douglas L. Myhre (2005-7)	Distributed Learning & Rural Initiatives: Douglas L. Myhre (2008-12)
					International Health: Taj Jadavji (2003-7)	Research: John D. Reynolds (2010-12)
					Research: Marvin J. Fritzler (1998-9); Chris R. Trigg (2000-3); Richard B. Hawkes (2004-7)	Clinical Research: Robert S. Sheldon (2008); Michael D. Hill (2010-12)

Dean:	William Cochrane (1967-73)	Lionel McLeod (1973-81)	Moramu Watanabe (1981-92)	Eldon R. Smith (1992-7)	D. Grant Gall (1997-2007)	Thomas Feasby (2007-12)
					Clinical Research: Robert S. Sheldon (2006-7)	
Assistant Deans:		Admissions & Student Affairs: John Baumber (1975-9)	Medical Bioethics: T. Douglas Kinsella (1984-92)	Medical Sciences: Pam A. Sokol (1993-6)	Assistant Deans not listed in CMA Directory after 1997	Assistant Deans not listed in CMA Directory after 1997
		Ambulatory Care Centre: David Steinman (1974-8)	Education: Mark Bisby (1982-3); Guido Van Rosendaal (1984-6); Ellen Burgess (1987-9); Chris Eagle (1990-1)	Undergraduate Medical Education: Allan R. Jones (1995-6); J. G. Des Coteaux (1997)		
		Education: Mark Bisby (1980-1)	Graduate Clinical Education: A. Keith Brownell (1985)	Graduate Education & Research: Pam A. Sokol (1997)		
			Continuing Medical Education: John T. Parboosingh (1985-90)			

Dean:	William Cochrane (1967-73)	Lionel McLeod (1973-81)	Moramu Watanabe (1981-92)	Eldon R. Smith (1992-7)	D. Grant Gall (1997-2007)	Thomas Feasby (2007-12)
		Research: Richard S. Hannah (1979-80); David L. Severson (1981)	Research: David L. Severson (1982-3); Gilbert A. Schultz (1984-6); Mark Bisby (1987-9); Quentin Pittman (1990); Robert B. Church (1991-2)			
Admin- istration in Dean's Office:		Assistant to the Dean (Ad- ministration): Mr. Sid R. Wallace (1976-9); Miss V. Bald- win (1980-1)	Assistant to the Dean: Miss V. Bald- win (1982); Mr. S. Patton (1983); S. K. Paton (1984-9); Ms. Jane E. Eibner (1990-2)	Assistant to the Dean: Jane E. Eibner (1993-7)	Executive Director: Jane E. Eibner (1998); Paul Heinrich (1999-2005)	Executive Director: Paul Heinrich (2008); Rita Neogy (2009-10)
		Assistant to the Dean (Finance): Mr. S. Patton (1976-81)	Assistant to the Dean (Finance): Mr. S. Patton (1982)		Executive Director & CFO: Paul Heinrich (2006-)	CFO: M. Guy Levy (2009-10)
						Executive Director & CFO: M. Guy Levy (2011-12)

Source: The Dean's Office did not keep a record of these appointments so this table was constructed from an appendix appearing in the annual *Canadian Medical Directory* (CMD). We recognize that there are some errors arising from temporal differences between when the Dean's Office reported this information and the CMD was actually published. We have corrected the list when we know of an inconsistency, but there may still be some errors here.

Appendix 7

Academic Department Heads ("Division Heads" until 1980)

DEPARTMENT *	DEPARTMENT HEAD *					
Anaesthesia	Fred Parney 1970-8	Robert C. Hamilton (Acting) 1978-80	Leo Strunin 1980-8	Roger Maltby (Acting) 1989-90	Chris J. Eagle 1990-9	Gerry V. Goresky 1999-2004
	J. N. (Neil) Armstrong 2004-13	Craig Pearce (Acting) 2013-14	Gary Dobson 2015-			
Biochemistry & Molecular Biology Previously: Medical Biochemistry	Robert Church 1967-83	Gordon Dixon 1983-8	Hans van de Sande 1988-93	Gil Schultz 1993-9	Leon Browder 1999-2009	Jonathan Lytton 2009-
Cardiac Sciences	Brent Mitchell 2003-10	Todd J. Anderson 2010-				
Cell Biology and Anatomy Previously: Morphological Sciences	A. David Dickson 1968-75	Martin I. Hollenberg 1975-8	Peter G. Price (Acting) 1978-80	William K. Stell 1980-5	Anthony W. F. Fisher (Acting) 1985-7	Anthony W. F. Fisher 1987-9
	Richard B. Hawkes 1989-99	John D. Reynolds 1999-2004	Naweed I. Syed 2004-14	Benedikt Hallgrimsson 2014-		
Clinical Neurosciences	Robert G. Lee 1981-91	Thomas E. Feasby 1991-2002	J. Gregory Cairncross 2002-12	Rajiv Midha 2012-		

DEPARTMENT *	DEPARTMENT HEAD *					
Community Health Sciences	John Read 1968-79	Edgar Love 1979-94	Lloyd Sutherland 1995-2002	Reg Sauve (Acting) 2002-3	Tom Noseworthy 2003-10	Christopher James Doig 2010-13
	Gordon Fick (Interim) 2013-14	Brenda Hemmelgarn 2014-				
Critical Care Medicine	Paul Boiteau (Interim) 2001-3	Paul Boiteau 2003-13	Christopher James Doig 2013-			
Emergency Medicine	Grant Innes 2012-13	Eddy Lang 2013-				
Family Medicine	Thomas C. Saunders (Acting) 1969-72	William M. Gibson 1972-8	George D.H. McQuitty 1978-9	Thomas C. Saunders 1980-1	E. Bruce Challis 1981-91	Rick W. Swanson 1991-6
	William G. Hall (Acting) 1996-7	Michael Tarrant (Acting) 1997-8	Peter G. Norton 1998-2006	Douglas Myhre (Acting) 2006-7	Catherine McLean 2007-12	Dennis Kreptul (Interim) 2012-13
	Charles Leduc 2013-					
Medical Biophysics Merged with Physiology and Biophysics	Stanley Rowlands 1968-81					
Medical Genetics	R. Brian Lowry 1994-7	Floyd Snyder (Acting) 1997-8	Floyd Snyder 1998-2005	Oksana Suchowersky 2005-10	Judy Chernos (Acting & Interim) 2010-12	Francois Bernier 2012-

DEPARTMENT *	DEPARTMENT HEAD *					
Medicine	Lionel McLeod 1968-74	Mo Watanabe 1974-6	Clarence Guenter 1976-85	Eldon Smith 1985-90	Eldon Shaffer 1990-2001	Dave Megran (Acting) 2001-2
	John Conly 2002-10	Maria Bacchus (Acting) 2010-11	Subrata Ghosh 2011-			
Microbiology, Immunology & Infectious Diseases	Larry Bryan 1978-88	Don Woods 1988-98	Dave Hart 1998-2003	Glen Armstrong 2003-13	Christopher Mody 2013-	
Obstetrics & Gynaecology	Harry Brody 1970-5	Robert Wintemute (Acting) 1975-7	Melville Kerr 1977-86	Jeffrey Lipshitz (Acting) 1986-7	Gavin Stuart (Acting) 1987-8	John Jarrell 1988-94
	Thomas Mainprize (Acting) 1994-6	Ian Lange (Acting) 1996-7	Ian Lange 1997-2008	R. Douglas Wilson 2008-		
Oncology	Gavin Stuart 1993-2003	Peter Craighead (Interim) 2003-4	George Browman 2004-6	Peter Craighead 2006-		
Pathology & Laboratory Medicine	Robert Lannigan 1970-81	Barry Rewcastle 1981-91	Hallgrimur Benediktsson (Acting) 1991-3	Hallgrimur Benediktsson 1993-2004	Martin Trotter (Acting) 2004-5	James R. Wright, Jr. 2005-
Pediatrics	William Cochrane (Acting) 1967-9	Gerald Holman 1969-74	Robert McArthur (Acting) 1974-5	Robert Haslam 1975-86	Robert McArthur 1986-91	Joel Fagan (Acting) 1991-3
	Grant Gall 1993-7	Raymond Donckerwolcke (Acting) 1997-8	Brent Scott 1998-2007	Francois Belanger (Acting) 2007-8	James D. Kellner 2008-	

DEPARTMENT *	DEPARTMENT HEAD *					
Physiology & Biophysics Previously: Medical Physiology Merged w/ Physiology and Pharmacology	Keith Cooper 1970-8	Warren Veale (Acting) 1979	Warren Veale 1980-9	Joe Davison 1989-98	Wayne Giles 1999-2003	David Proud 2004-9
	Gerald W. Zamponi 2009-10					
Pharmacology & Therapeutics Merged w/ Physiology & Biophysics	Keith MacCannell 1970-4	Gary R. Van Petten (Acting) 1975-6	Gary R. Van Petten 1976-7	Sheldon Roth (Acting) 1977-9	Morley Hollenberg 1979-89	Sheldon Roth (Acting) 1989-90
	Christopher R. Triggie 1990-9	Sheldon Roth (Acting) 1999-2001	Christopher R. Triggie (Acting) 2001	David Severson (Acting) 2002-3	David Severson 2003-9	
Physiology & Pharmacology	Gerald W. Zamponi 2008-12	Paul Schnetkamp (Acting) 2012-13	Wallace K. MacNaughton 2013-			
Psychiatry	Keith Pearce 1969-80	David Lewis (Acting) 1980-2	Sebastian Littmann 1982-6	David Miyauchi (Acting) 1986-7	Nady El- Guebaly 1987-96	David Miyauchi (Acting) 1996-7
	Donald Addington 1997-2008	Glenda McQueen 2008-11	Beverly Adams 2011-			
Radiology	H. E. Duggan 1970-8	H. F. Morrish 1979-89	R. D. Johns 1989-92	Chen Fong 1996-2006	Robert Sevick 2006-	
Surgery	N. Tait McPhedran 1969-81	Peter J. E. Cruse 1981-8	Robert McMurtry 1988-92	Rene Lafreniere 1993-2006	John B. Kortbeek 2006-	

* It should be noted that until 20 November 1980, all “departments” and “department heads” were officially referred to as “divisions” and “division heads.” This list was compiled from the following sources, which were not always in total agreement: current department heads and their office staff, the *Canadian Medical Directory* appendices, and the personal recollections of the authors.

Appendix 8

Cumming School of Medicine Accreditation Reviews

VISIT	RESULT
Committee on Accreditation of Canadian Schools (CACMS formerly the LCME)	
April 13-17, 1970	Provisional accreditation prior to entrance of first class
April 2-5, 1973	Full accreditation
April 14-17, 1975	Full accreditation
April 14-17, 1980	Full accreditation
February 25-28, 1985	Full accreditation
May 31-June 3, 1993	Full accreditation
March 29-30, 2000	Full accreditation
March 2-5, 2008	Full accreditation
March 23-24, 2009	Full accreditation
Committee on Accreditation of Canadian Medical Education (CACME)	
June 8-9, 1997	Full accreditation
May 12-13, 2003	Full accreditation
June 9-10, 2008	Full accreditation
November 18-19, 2013	Full accreditation
Accreditations by the Royal College of Physicians and Surgeons of Canada (RCPSC)	
April 13-17, 1970	Full accreditation
April 2-5, 1973	Full accreditation
April 14-17, 1975	Full accreditation
April 14-17, 1980	Full accreditation
February 25-28, 1985	Full accreditation
February 5-11, 1991	Full accreditation
February 10-14, 1997	Full accreditation
February 3-7, 2003	Full accreditation
February 22-27, 2009	Full accreditation

Source: Association of Faculties of Medicine of Canada; Cumming School of Medicine, Education Quality Improvement & Office of Health and Medical Education Scholarship, and the Royal College of Physicians and Surgeons of Canada. The Foothills Hospital is separately accredited and has received full accreditation every 3-4 years since 1967. It is also an accredited Stroke Rehabilitation and Trauma hospital.

Appendix 9

Annual Operating Budget, 1966-2013

1966-7 (ending 31 March 1967)

Dean	\$23,000
Assistant to Dean	\$12,000
Secretary	\$4,200
Pensions	\$1,620
Supplies/Sundries	\$1,800
Total	\$42,620
(ESTIMATED)	

1967-8 (ending 31 March 1968):
\$116,500 (ACTUAL)

1968-9 (ending 31 March 1969):
\$415,000 (ACTUAL)

1969-70 (ending 31 March 1970):
\$653,281 (ACTUAL)

1970-1 (ending 31 March 1971):
\$1,350,000 (ESTIMATED)

1971-2 (ending 31 March 1972):
\$1,838,970 (ACTUAL)

1972-3 (ending 31 March 1973):
\$2,526,777 (ACTUAL)

1973-4 (ending 31 March 1974):
\$3,008,025 (ACTUAL)

1974-5 (ending 31 March 1975):
\$3,435,880 (ACTUAL)

1975-6 (ending 31 March 1976):
\$4,058,040 (ACTUAL)

1976-7 (ending 31 March 1977):
\$4,610,482 (ACTUAL)

1977-8 (ending 31 March 1978):
\$5,142,765 (ACTUAL)

1978-9 (ending 31 March 1979):
\$5,587,815 (ACTUAL)

1979-80 (ending 31 March 1980):
\$6,020,215 (ACTUAL)

1980-1 (ending 31 March 1981):
\$6,851,570 (ACTUAL)

1981-2 (ending 31 March 31 1982):
\$7,975,085 (ACTUAL)

1982-3 (ending 31 March 1983):
\$9,200,315 (ACTUAL)

1983-4 (ending 31 March 1984):
\$9,971,200 (ACTUAL)

1984-5 (ending 31 March 1985):
\$10,225,610 (ACTUAL)

1985-6 (ending 31 March 1986):
\$11,028,765 (ACTUAL)

1986-7 (ending 31 March 1987):
\$10,532,030 (ESTIMATED)

1987-8 (ending 31 March 1988):
\$11,287,700 (ESTIMATED)

1988-9 (ending 31 March 1989):
\$11,304,100 (ESTIMATED)

1989-90 (ending 31 March 1990):
\$12,809,400 (ACTUAL)

1990-1 (ending 31 March 1991):
\$13,478,310 (ACTUAL)

1991-2 (ending 31 March 1992):
\$14, 680, 855 (ACTUAL)

1992-3 (ending 31 March 1993):
\$15, 214, 360 (ACTUAL)

1993-4 (ending 31 March 1994):
\$15,444,515 (ACTUAL)

1994-5 (ending 31 March 1995):
\$14,575,610 (ACTUAL)

1995-6 (ending 31 March 1996):
\$14,343,400 (ACTUAL)

1996-7 (ending 31 March 1997):
\$14,210,145 (ACTUAL)

1997-8 (ending 31 March 1998):
\$14,869,870 (ACTUAL)

1998-9 (ending 31 March 1999):
UNKNOWN

1999-2000 (ending 31 March 2000):
\$15,566,600 (ESTIMATED)

2000-2001 (ending 31 March 2001):
\$16,398,230 (ACTUAL)

2001-2 (ending 31 March 2002):
\$17,906,665 (ACTUAL)

2002-3 (ending 31 March 2003):
UNKNOWN

2003-2004 (ending 31 March 2004):
UNKNOWN

2004-5 (ending 31 March 2005):
\$30,270,941 (ACTUAL)

2005-6 (ending 31 March 2006):
\$35,129,456 (ACTUAL)

2006-7 (ending 31 March 2007):
\$36,573,611 (ACTUAL)

2007-8 (ending 31 March 2008):
\$47,237,281 (ACTUAL)

2008-9 (ending 31 March 2009):
\$53,552,371 (ACTUAL)

2009-10 (ending 31 March 2010):
\$57,223,764 (ACTUAL)

2010-11 (ending 31 March 2011):
\$58,146,203 (ACTUAL)

2011-12 (ending 31 March 2012):
\$60,319,583 (ACTUAL)

2012-13 (ending 31 March 2013):
\$63,265,011 (ACTUAL)

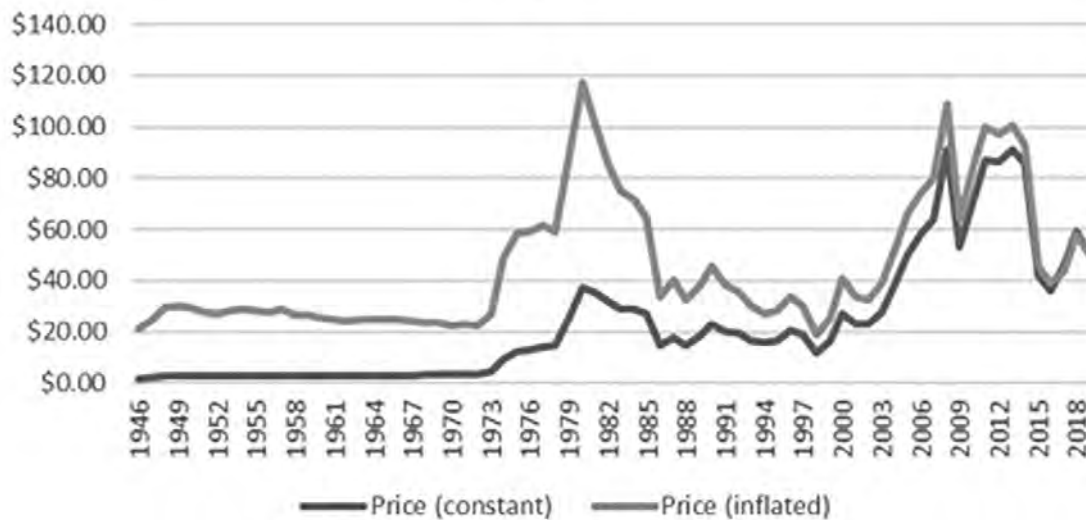
Dollar amounts are not adjusted for inflation.

Data missing for the following years:
 1998-9, 2002-3, 2003-4.

Source: UARC 91.002, Boxes 1-8.

Appendix 10

Historical Price of Crude Oil (1946–2019)
(WTI—Index) (\$US/barrel)



Note: This table shows Annual Average Crude Oil Price from 1946 to 2019. Prices are adjusted for inflation using the Consumer Price Index as presented by the Bureau of Labor Statistics. Prices are based on historical free market (stripper) oil prices of Illinois Crude as presented by Illinois Oil and Gas Association and Plains All American Oil.

Source: "Historical Crude Oil Prices (Table)," Inflation Data, <http://www.inflationdata.com> (accessed 31 July 2020).

Appendix 11

Class Animals (MD “*Ménagerie*”)

Class Year	Class Animal	Class Year	Class Animal
1973	Guinea pigs (unofficial)	1993	Auks
1974	<i>None</i>	1994	Peccaries
1975	Turkeys	1995	Quokkas
1976	Beavers	1996	Sifakas
1977	Toads	1997	Bandicoots
1978	Minks	1998	Skinks
1979	Lemmings	1999	Dugongs
1980	Chameleons	2000	Bonobos
1981	Lampreys	2001	Kinkajous
1982	Locusts	2002	Pangolins
1983	Sloths	2003	Geoducks
1984	Emus	2004	Taphazous
1985	Wombats	2005	Candirus
1986	Pigs	2006	Fulmars
1987	Slugs	2007	Meerkats
1988	Poodles	2008	Tuatara
1989	Flamingos	2009	Macaques
1990	Pandas	2010	Glabers
1991	Yaks	2011	Kakapos
1992	DikDiks	2012	Blobfish

Appendix 12

Honorary Degrees Received by the Faculty and Graduates of the Cumming School of Medicine*

Name	Degree	Year	University
Alastair M. Buchan	LL.D	2009	University of Calgary
	LL.D	2018	Western University
Norman R. Campbell	DSc	2019	Memorial University
Robert B. Church	LL.D	1998	University of Lethbridge
	DSc	2015	University of Alberta
William A. Cochrane	LL.D	1983	University of Calgary
	LL.D	1983	Dalhousie University
Richard L. Ehman	DSc	2000	University of Saskatchewan
Thomas E. Feasby	DSc	2013	Western University
T. Chen Fong	LL.D	2019	University of Calgary
W. Morrison Gibson	LL.D	1986	University of Calgary
Clarence A. Guenter	LL.D	2006	Zamboanga University
	LL.D	2013	University of Calgary
C. Bruce Hatfield	LL.D	1995	University of Calgary
Robert E. Hatfield	LL.D	1995	University of Calgary
Henry Mandin	DSc	2001	University of East Anglia
Lionel E. McLeod	DSc	1988	University of Alberta
	LL.D	1990	Queens University
	LL.D	1992	University of Calgary
Eldon R. Smith	LL.D	2014	Dalhousie University
Lloyd R. Sutherland	DSc	2004	University of New Brunswick
Mamoru Watanabe	DSc	1997	University of Alberta
	LL.D	2007	University of Northern British Columbia
Hayley Wickenheiser	LL.D	2017	University of Saskatchewan
	LL.D	2018	University of Calgary
Ronald F. Zernicke	DSc	2008	University of Waterloo

*Partial listing of honorary degrees awarded to the faculty and graduates of the Cumming School of Medicine up to 2019.

Notes

NOTES TO PREFACE

- 1 Edward C. Atwater, “Medical Schools: How Should We Write Their Histories,” *Bulletin of the History of Medicine* 54, no. 3 (Fall 1980): 455–60. Atwater notes that histories were rare before 1943. He gave the following objectives: to record growth, provide accessible documentary evidence, commemorate an anniversary, record changes in medical education, fundraise, and project an image of excellence. The major difficulty he noted was evaluating its graduates—the product produced by the faculty and thus its principle contribution to medical knowledge and practice.
- 2 J. Robert Lampard, “Dr. Earle P. Scarlett and Dr. George Stanley,” in Lampard, *Alberta’s Medical History: Young and Lusty and Full of Life* (Altona, MB: Friesens Corporation, 2008), 233–42 and 325–48.
- 3 J. Robert Lampard, “Peter Joseph Erasmus Cruse MB, ChB, FRCS (C&E), FACS, (1927–2006),” in *Proceedings of the 20th Anniversary of History of Medicine Days Conference 2011*, edited by Kelsey Lucyk, Aleksandra Loewenau and Frank W. Stahnisch (Newcastle upon Tyne, UK: Cambridge Scholars Publishing, 2015), xviii–xxii, 3–33. Dr. Cruse’s mentor in medical history was Dr. Scarlett. Dr. Lampard knew both of them well.
- 4 Charles G. Roland, “Dr. Earle P. Scarlett, Melding Tradition and Beauty in Historical Writing,” *Canadian Medical Association Journal* 122 (1980): 822–6.
- 5 N. Tait McPhedran, *Canadian Medical Schools: Two Centuries of Medical History 1822–1992* (Montreal: Harvest House, 1993).
- 6 Glen E. Edwards and Douglass B. Harkness, *Life Near the Bone* (self-published, 1991); Melville G. Kerr, “Partnering and Health Development: A Tale of Three Cities,” (Calgary: University of Calgary Press, 1996);

Ian Mitchell and Arty Coppes-Zantinga, *Child in the Centre: Seventy-Five Years at the Alberta Children’s Hospital* (Calgary: University of Calgary Press, 1997); Doris H. Annear, Audrey M. Cerkenvenac, and Moira E. Hogg, eds., *Neurosurgery in Calgary. The First Fifty Years* (Calgary: Blitzprint, 2004); George Wyse, Robert Lampard, Barbara Kermod-Scott, and Al Karim Walli, *Hearts, Minds and Vision: Rotes of the Libin Cardiovascular Institute of Alberta* (Calgary: Kingsley Publishing, 2012); Norman Schachar, *The Department: A Surgeon’s Memories* (Calgary: ZEDS Comic Communication, 2015).

- 7 N. Tait McPhedran, *Canadian Medical Schools*, 251–70, contains an extensive bibliography on medical education in Canada. Canadian medical faculty histories written after 1990 include Elise A. Corbet, *Frontiers of Medicine* (Edmonton: University of Alberta Press, 1990); Joseph Hanaway and Richard L. Cruess, *McGill Medicine: The First Half Century 1829–1885*, vol. 1 (Montreal: McGill-Queen’s, 1996); and Joseph Hanaway, Richard L. Cruess, and James Darragh, *McGill Medicine 1885–1936*, vol. 2 (Montreal: McGill-Queen’s, 2006). Geoffrey Teeson et al., *The Making of the Northern Ontario School of Medicine* (Montreal: McGill-Queen’s, 2009); Robert Lampard, *Deans, Dreams and a President* (self-published, 2011); Edward L. Shorter, *Partnership For Excellence: Medicine at the University of Toronto and Academic Hospitals* (Toronto: University of Toronto Press, 2013); and T. Jock Murray, *Noble Goals, Dedicated Doctors: The Story of Dalhousie Medical School* (Halifax: Nimbus, 2017).

NOTES TO INTRODUCTION

- 1 H. Ernest MacDermot, “Early Medical Education in North America,” *Canadian Medical Association Journal* [henceforth, *CMAJ*] 67 (1952): 370–5.
- 2 Winston S. Churchill, “To the Health of the Guests,” and “To the College,” abstracted and published in the *CMAJ* 50 (1944): 581–4.

- 3 Joseph Hanaway and Richard Cruess, *McGill Medicine 1829–1885*, vol. 1 (Montreal: McGill-Queen's University Press, 1996): 18–19.
- 4 Frank J. Papa and Peter H. Harasym, "Medical Curriculum Reform in North America from 1765 to the Present: A Cognitive Science Perspective," *Academic Medicine* 74, no. 2, (1999): 154–64.
- 5 *Ibid.*, 241–9. The cost increase rapidly reduced the number of proprietary (private) medical schools in both countries. For a list of all Canadian proprietary medical schools, see Jackie Duffin, *History of Medicine: A Scandalously Short Introduction* (Toronto: University of Toronto Press, 1999), 121.
- 6 William Osler, "Teaching and Thinking: The Two Functions of a Medical School," in *Equanimitas, with Other Addresses*, 2nd ed. (Philadelphia: Blackiston, 1920), 126–36.
- 7 Kenneth M. Ludmerer, *Learning to Heal* (New York: Basic Books, 1985), 63–71. Additional courses taught at Hopkins included physiological chemistry, pharmacology, and bacteriology.
- 8 *Ibid.*, 68–71, 152–5.
- 9 Papa and Harasym, "Medical Curriculum Reform," 155–7.
- 10 Susan Lamb, "Johns Hopkins: A Canadian Medical School?" *CMAJ* 189 (2017): E893–4, doi:10.1503/cmaj.170284. One of the Hopkins first four chiefs was Canadian (Osler); three of their four successors were Canadians; 38 per cent of the department chiefs, senior residents, and nursing superintendents between 1889 and 1939 were Canadian.
- 11 N. Tait McPhedran, *Canadian Medical Schools: Two Centuries of Medical History 1822 to 1992* (Montreal: Harvest House, 1993), 38–53. For a more detailed review, see Joseph Hanaway, Richard Cruess, and James Darragh, *McGill Medicine 1885–1936*, vol. 2 (Montreal: McGill-Queen's University Press, 2006), 1–80.
- 12 Abraham Flexner, *Medical Education in the United States and Canada: A Report to the Carnegie Foundation for the Advancement of Teaching* (New York, Updyke, 1910), bulletin no. 4; also see "The Flexner Report," in Ludmerer, *Learning to Heal*, 166–90.
- 13 Kenneth M. Ludmerer, *Learning to Heal*, 241.
- 14 Maryanne Fedunski, "The University of Alberta and the Rockefeller Western Reserve Foundation (1920–1923)," in J. Robert Lampard, *Alberta's Medical History* (self-published, 2008), 545–57.
- 15 Elise A. Corbet, *Frontiers of Medicine* (Edmonton: University of Alberta Press, 1990), 22, 25, 37.
- 16 McPhedran, *Canadian Medical Schools*, 30, 94.
- 17 Robert Lampard, "Dr. Allan C. Rankin, Dr. Albert E. Archer and The Hons. George Hoadley, Irene Parlby, W. W. Cross and the UFA Government Healthcare Program," in *Alberta's Medical History*, 252, 261–2, 561. When the RCPSC introduced their fellowship examinations in 1932, Dr. Morley A. R. Young was in the first class. All failed, but they passed in 1933 on their second attempt.
- 18 Robert I. Harris and Robert Janes, *Essays in Surgery* (Toronto: University of Toronto Press, 1950): xiii–xiv, and R. C. Liard, "William Edward Gallie" (Department of Surgery, U of T, 1978), 16–52. The Gallie course consisted of one year of pathology followed by a year of general surgery and a year in a surgical subspecialty.
- 19 Kenneth M. Ludmerer, *Time to Heal: American Medical Education from the Turn of the Century to the Era of Managed Care* (Oxford: Oxford University Press, 1999): 202–4. The best summary of the Western Reserve medical curriculum is found in Thomas H. Hale, "Medical Education at Western Reserve University," *New England Journal of Medicine* 267 (October 1962): 868–87, and 267 (November 1962): 916–23. One criticism of the Western Reserve approach was that the knowledge gained was not designed to solve diagnostic problems, since creating a differential diagnosis was not automatic; see Papa and Harasym, "Medical Curriculum Reform," 157–8.

- 20 D. Sclater Lewis, *The Royal College of Physicians and Surgeons of Canada, 1920–1960* (Montreal: McGill-Queen's University Press, 1962), 119–27.
- 21 Association of Canadian Medical Schools minutes for April (n.d.) and 31 August 1943. The tenth dean was Dr. Lindsay, from Saskatchewan. Two additional classes graduated from U of A. The high voluntary (over 30 per cent) MD enlistment rate avoided conscription, as was required in the United States and Britain. For more on Alberta doctors in the Second World War, see John Scott, *The History of the Faculty of Medicine of the University of Alberta, 1913–1963* (Edmonton: University of Alberta Press, 1963), 20, 21; Robert Lampard, *Deans, Dreams and a President* (self-published, 2011), 56, 57; and William B. Parson, "Medicine in Alberta: the WWII Years," in Lampard, *Alberta's Medical History*, 649–52.
- 22 J. Robert Lampard, "Dr. John Scott," in Lampard, *Deans, Dreams and a President*, 58, 75–6, 93–4. Full, on-site, four-year medical training programs in all the major specialties were in place at U of A by 1959; Dr. Richard E. Rossall, personal communication, 15 August 2009.
- 23 David A. Shephard, *The Royal College of Physicians and Surgeons of Canada, 1960–1980*, (Ottawa: RCPSC, 1985), 183–227.
- 24 George Miller et al., *Teaching and Learning in Medical School* (Cambridge, MA: Harvard University Press, 1962).
- 25 William A. Cochrane, "Philosophy and Program for Medical Education," *CMAJ* 98 (1968): 500.
- 26 Howard S. Barrows, *Problem-Based Learning: An Approach to Medical Education* (New York: Springer, 1980). Also see William B Spaulding's *Revitalizing Medical Education, McMaster Medical School, The Early Years 1966–1974* (Hamilton, ON: B. C. Decker, 1991).
- 27 Papa and Harasym, "Medical Curriculum Reform," 158–60.
- 28 *Ibid.*, 160–2.
- 29 Hanaway and Cruess, *McGill Medicine*, vol. 1: 9–15, 27.
- 30 *Ibid.*, 27.
- 31 T. Jock Murray and Janet Murray, *Sir Charles Tupper: Fighting Doctor to Father of Confederation* (Toronto: AMS/Fitzhenry and Whiteside, 1999), 74–8. Tupper was an Edinburgh graduate (1843); founded the Dalhousie medical school (1863); served as premier of Nova Scotia (1864–7); led the union with Canada; was the founding CMA president (1867–70); a Father of Confederation (1867); a federal cabinet minister (1872–3 and 1878–84); high commissioner to London (1883–97); and became Canadian prime minister for a brief period in 1896.
- 32 Robert B. Kerr, *History of the Medical Council of Canada*: (Ottawa: MCC, 1979), 1–7.
- 33 H. Ernest MacDermot, *Sir Thomas G. Roddick* (Toronto: Macmillan, 1938), 84–112.
- 34 Kerr, *History of the Medical Council of Canada*, 14–23; also see Christy Vodden, *Licentiate to Heal: A History of the Medical Council of Canada* (Ottawa: MCC, 2008), 13–18.
- 35 *Ibid.*, 8–23; also see Robert Lampard, "Law vs. Licensure: Which Shall Rule? The Lafferty vs. Lincoln Trial," *Alberta Doctor's Digest* 38, no. 6 (2013): 24–5.
- 36 William Osler, "Note on the Use of a Medical Journal," *Western Canada Medical Journal* 1 (1907): 1–3. Osler recommended the objects should be to (1) serve as a medium of communication; (2) direct the policy of the profession; (3) publish the work of men in the region; and (4) have a wide and sympathetic outlook. The journal's editor, G. O. Hughes (in vol. 4 (1910): 224–6), noted that the journal's chief purpose was to support the WCMF initiative.
- 37 J. Robert Lampard, "The Role of Alberta Physicians in the Formation of the Medical Council of Canada," *Alberta Doctor's Digest* 39, no. 4 (2014): 32–3.
- 38 Scott, *The History of the Faculty of Medicine of the University of Alberta*, 14–15. The Alberta provincial and MCC exams were integrated in 1949 and revised in 1961.

- 39 D. W. Gullett, *A History of Dentistry in Canada* (Toronto: University of Toronto Press, 1971), 107–8.
- 40 Lampard, “Dr. Harry Goodsir Mackid, 1858–1916,” *Alberta’s Medical History*, 132–44.
- 41 Hugo Ewart, “Causes of Mortality in a Subarctic Settlement (York Factory, Man), 1714–1946,” *Canadian Medical Association Journal* 129 (1983): 571–4; also see, P. W. Mathew, “Notes of Diseases among the Indians in the Manitoba, Northwest and British Columbia,” *Lancet* 1, no. 173, (1888).
- 42 Paul Hackett, *A Very Remarkable Sickness: Epidemics in the Petit Nord, 1670 to 1846* (Winnipeg: University of Manitoba Press, 2001), xi–xiv, 236–44, and Arthur J. Ray, *Diffusion of Diseases in the Western Interior of Canada, 1830–1850*, in *The Geographical Review* 66, no. 2 (1976): 139–57.
- 43 T. Kue Young, “Health of Indigenous Peoples in Canada,” *Canadian Encyclopaedia Online*, 7 February 2006, <https://www.thecanadianencyclopedia.ca/en/article/aboriginal-people-health>.
- 44 Ross B Mitchell, “Doctor Alexander Rowand,” *CACHB* 7, no. 4 (1943): 1–5. Dr. Rowand moved to Quebec City in 1847 to serve as the port medical officer and was the chair of clinical surgery at the Quebec School of Medicine. See *Osler Library Newsletter* 120 (Spring 2014): 11.
- 45 Lampard, “Richard Barrington Nevitt,” in *Alberta’s Medical History*, 72–84.
- 46 Lampard, “Robert George Brett,” in *Alberta’s Medical History*, 85–99.
- 47 MacDermot, *Sir Thomas G. Roddick*, 45–68; also see Lampard’s “Military Medicine and Medical Care in the North-West Rebellions of 1870/71 and 1885,” in *Alberta’s Medical History*, 482–93. The rebellion crystalized the completion of the transcontinental CPR (7 November 1885) and ended with the trial of Louis Riel and his subsequent hanging on 16 November 1885.
- 48 Lampard, “Dr. Frank Hamilton Mewburn,” in *Alberta’s Medical History*, 100–13.
- 49 Lampard, “Dr. Allan Coats Rankin” in *Alberta’s Medical History*, 243–55.
- 50 Hilda Neatby, “The Medical Profession in the Northwest Territories,” *Saskatchewan History* 2 (Spring 1949): 1–16. The first ordinance is recorded in Heber C. Jamieson, *Early Medicine in Alberta* (Edmonton: Alberta Medical Association, 1947), 43–5. The role of Dr. Brett is confirmed in the calligraphed dust jacket for Lampard’s *Alberta’s Medical History*, and was written by Dr. Douglas B. Leitch, Alberta’s first pediatrician.
- 51 R. Kenneth Thomson, *A Brief to the Royal Commission on Health Services Submitted by the CPSA and CMA (Alberta Division) and the Faculty of Medicine, U of A* (February 1963), 6, 8. From 1911 to 1960, the doctor-population ratio varied from 1:1025 to 1:1343. Also see Jamieson, “Early Medicine in Alberta,” 43–5.
- 52 David B. Hogan, “Osler Goes West,” *RCPSC Annals* 33 (2000): 316–19.
- 53 Lampard, “The First [CMA] Convention in Alberta (Banff 1889),” in *Alberta’s Medical History*, 498–503.
- 54 Lampard, “George Allan Kennedy,” in *Alberta’s Medical History*, 122–4.
- 55 Lampard, “Medical Contributions of Albertans in the First World War: Rising to the Challenge,” in *The Frontier of Patriotism: Alberta and the First World War*, ed. Adriana Davis and Jeff Keshen (Calgary: University of Calgary Press, 2016), 165–6.
- 56 Anthony Rasporich, *Make No Small Plans: The University of Calgary at Forty* (Calgary: University of Calgary Press, 2007), 1.
- 57 Harry Goodsir Mackid, “The President’s Address to the Annual Meeting of the Association,” *Canadian Medical Association Journal* (hereafter referred to as *CMAJ*) 2 (1912): 801–11, reprinted in Lampard, *Alberta’s Medical History*, 140.
- 58 Lampard, *Deans, Dreams and a President*, 5–16. A similar three-year program was started in Saskatchewan in 1926 but did not become a full MD program until 1953.

- 59 Ibid., 9, 29–30, 33.
- 60 Ibid., 12–13; also see Lampard, “Medical Contributions of Albertans in the First World War,” 161–6, 180–1.
- 61 Maryanne Fedunkiwi, “The University of Alberta and the Rockefeller Foundation” in Lampard, *Alberta’s Medical History*, 545–57. It was invested in 6 per cent Alberta government bonds. The interest helped fund the faculty and protect it through the Depression. It still exists and has a value of approximately \$1.5 million.
- 62 Corbet, *Frontiers of Medicine*, 14, 22, 25, 37.
- 63 Ibid., 76–92. For the impact on surgery, see R. A. Macbeth, *The Golden Years in the Department of Surgery of the University of Alberta* (Edmonton: U of A Department of Surgery, 2009), 167–238.
- 64 Walter H. Johns, “Medical School Staff Key Factor: Ross,” *Calgary Herald*, [18?] June 1965. Almost two hundred qualified medical and dental applicants were turned away from U of A that year.
- 65 Walter C. Mackenzie, *U of A Annual Medical Faculty Report for 1962* (Edmonton: U of A Faculty of Medicine, 1962). The projected provincial need was for 120 MD graduates per year by 1980, the maximum number the faculty could train.
- 66 J. Arthur MacFarlane, *Medical Education in Canada* (Ottawa: Queen’s Printer, 1964). The report was highlighted in the *Royal Commission on Health Services*, vol. 1 (Ottawa: Queen’s Printer, 1964), 254.
- 67 *Royal Commission on Health Services*, vol.1 (Ottawa: Queen’s Printer 1964), 71. The federal government funded the HRF with \$500 million in 1965 to double the number of MD graduates in Canada to 1,600 per year.
- 68 Lampard, “Donald Forbes (Tim) Cameron” in *Deans, Dreams and a President*, 125–33. *Canadian Doctor* magazine had predicted on 23 January 1967 that the HRF would provide \$83 million to U of A (for the basic, clinical science, and the Centennial Hospital centres) in Edmonton, and \$30 million (for a medical school) in Calgary, as noted by Walter Nagle in the *Calgary Herald*, 24 January 1967.
- 69 George D Stanley, “Daniel Stewart Macnab, October 28, 1879–February 2, 1951,” *CACHB* 16, no. 1 (1951): 10–20; also see Donald McNeil’s recollections of him in Gerald M. McDougall, *Teachers of Medicine: The Development of Graduate Clinical Medical Education in Calgary* (Calgary: University of Calgary, 1987), 161–2. Members of the Associate Clinic joined the Foothills Hospital Board (Dr. Earle Scarlett), the faculty (Dr. John Dawson), and served in senior positions on the medical staff (Dr. Ross MacLean, Wallace Mydland). The clinic library’s material was given to the Glenbow and University of Calgary. The clinic persists to this day.
- 70 McDougall, *Teachers of Medicine*, 17–29.
- 71 James Douglas Lampard, personal communication, 20 April, 1968. Doug is the author’s twin brother and interned at the HCH in 1966.
- 72 McDougall, *Teachers of Medicine*, 46–9.
- 73 Ibid., 43–6.
- 74 Ibid., 57–86
- 75 John B. Corley, “Family Doctor Grad Program Planned,” *Calgary Albertan*, 11 May 1965, and “New Medical School for GPs,” *Calgary Herald*, 8 June 1965. The other approved program was in London, Ontario.
- 76 Wallace E. Mydland, interview with Robert Lampard, 10 September 2013; Dr. Mydland participated in the discussions at the meeting.
- 77 Rasporich, *Make No Small Plans*, 1–5, 25–8.
- 78 Ibid., 25–8.
- 79 J. Douglas Wallace, “The Role and Responsibility of the Medical Profession in Society,” Opening Ceremony Keynote Presentation, 28 May 1973, University of Calgary Archives (UARC), UARC 2000.075 file 25.10.
- 80 Donald R. Wilson and Donald L. McNeil, “The Origins of the Faculty of Medicine, University

- of Calgary in Medicine,” in *Medicine in Alberta Historical Reflections* (Edmonton: AMF, 1993), 190–1.
- 81 Lampard, *Deans, Dreams and a President*, 80–3, 96–7. The U of A medical class of 1959 was reduced from 60 to 40 in 1960 because many had a less than 65 per cent average on entry. The members of the 1960 class all met the 65 per cent or higher requirement for the first time in several years. (Dr. Robert A. Lampard was a member of the entry class of 1960.)
- 82 Hugh A. Arnold, AMA Board meeting, 2 June 1963. All AMA minutes are held at AMA headquarters in Edmonton.
- 83 Hugh Gallie et al., AMA Education Subcommittee meeting, 29 November 1963.
- 84 James C. Mahaffy, Foothills Hospital Board meeting, AHSA, 3 February 1964. The committee consisted of Drs. Joe Moriarty (FP), Howard MacEwen (internist), Vaughn Mason (obstetrician), Hugh Gallie (surgeon), and Walter Anderson, who was the AMA’s chairman of the Committee on Hospital and Professional Relations.
- 85 Hector E. Duggan, AMA Board meetings 16 and 17 April 1964.
- 86 Hugh A. Arnold, AMA Board meetings, 16 and 17 April 1964. Also see the minutes of the AMA’s Education Committee, 21 November 1964.
- 87 Hugh A. Arnold, AMA Board meeting, 16 June 1964, and Executive Committee meeting, 22 July 1964; also see the Foothills Hospital Board meetings, 12 April 1961 with Minister Ross, and 14 May 1964, when the board decided to begin selecting department heads with the assistance of the AMA.
- 88 Hugh A. Arnold, AMA Board meeting, 16 June 1964, and AMA Executive Committee meeting, 22 July 1964.
- 89 “Calgary well suited for a teaching center,” *Calgary Herald*, 3 September 1964.
- 90 Emmett M. Hall, Chairman, *Royal Commission on Healthcare*, vol. 1 (Ottawa: Queen’s Printer, 1964), x.
- 91 J. Arthur MacFarlane, *Report to the Royal Commission on Medical Education* (Ottawa: Queen’s Printer, 1964). The Judak report was summarized in the *Royal Commission on Health Services*, vol. 1 (Ontario Queen’s Printer, 1964), 237–51.
- 92 *Ibid.*, 241–55.
- 93 *Ibid.*, 552, 593.
- 94 *Ibid.*, 71. The federal government narrowed the recommendation to Sherbrooke, McMaster, Calgary, and St. John’s.
- 95 *Ibid.*, 70–1, 533–6, 551–2.
- 96 Harold Worrall and John Phin, “Forsees Medical School,” *Calgary Albertan*, 3 September 1964.
- 97 Walter C. Mackenzie, “No Time for Delay,” *Calgary Herald*, 5 October 1964.
- 98 Donald L. McNeill, *Medicine of My Time* (Altona, MB: Friesens, 1989), 124. For further details of the initiative, see “The Origin of the Faculty of Medicine, University of Calgary,” 191–2, and “Reflections on the Development of the Faculty of Medicine, University of Calgary,” 196–8, both in Donald R. Wilson and William B. Parsons, *Medicine in Alberta: Historical Reflections* (Edmonton: AMF, 1993).
- 99 Frank Swanson, “Medical Faculty,” *Calgary Herald*, 25 May 1965.
- 100 Joseph Arthur MacFarlane was the former dean of medicine at U of T (1946–61), Rhodes scholar, member of the 11th Field Ambulance under Dr. H. H. Moshier, and a consultant who recommended a faculty of medicine at U of C and a Health Science Centre at Memorial University.
- 101 J. Arthur MacFarlane, Charles Illingworth, and George Wolf, *The Feasibility of Establishing a Medical School in the University of Alberta at Calgary*, report to the Board of Governors (BOG) and the president of the University of Alberta at Calgary, 30 August 1965, UARC BOG Report #0165. This is commonly referred to as the MacFarlane Report.
- 102 Donald L. McNeill, *Medicine of My Time*, 126–7.

- 103 James C. Mahaffy, Foothills Hospital Board meeting, AHSA, 21 July 1965.
- 104 Alan A. Gibb, "Full-Time Undergraduate Enrollment in University of Alberta, in Preliminary Statistical Data compiled for the Committee on Medical Education [sic], University of Alberta," 12 May 1965, 5. Attached as appendix (d)ii to the MacFarlane Report of 30 August 1965. UARC 2000.042 file 16.18.
- 105 William Bramley-Moore, letter to J. C. McNeill, director, Public Health Education, 23 November 1964.
- 106 Walter Nagel, "Alberta Trains only 25 p.c. of its Doctors," *Calgary Herald*, 23 October 1967. U of A doubled its intake from 60 to over 100 medical students from 1960 to 1965.
- 107 Walter Nagel, interview with Dr. Kenneth Hill, in "140 Doctors Needed Yearly in Alberta," *Calgary Herald*, 17 August 1967.
- 108 J. Arthur MacFarlane et al., MacFarlane Report (1965): 13 (d)ii.
- 109 Ibid., appendix (d)iii.
- 110 Ibid., 25.
- 111 Ibid., appendix (e)ii. The Hall Commission assumed there would be a two-year internship in Canada by 1977.
- 112 Herbert S. Armstrong, "Official Word Still Awaited," *Calgary Herald*, 29 October 1965.
- 113 J. Donovan Ross, "Calgary to Get Medical School," *Calgary Herald*, 26 October 1965.
- 114 Harold Worrall, "Problems Foreseen," *Calgary Albertan*, 27 October 1965.
- 115 Ross, "Calgary to Get Medical School."
- 116 Frank Swanson, "Editorial," *Calgary Herald*, 27 October 1965.
- 117 Herbert S. Armstrong, Minutes of the General Faculty Council, 5 November 1965
- 118 J. Donovan Ross, "But Ross Rules out UAC Hospital," *Calgary Herald*, 9 December 1965.
- 119 Herbert S. Armstrong, "\$30 million medical school announced," *Calgary Albertan*, 17 February 1966. President Armstrong predicted the medical school could accept students one year earlier, in 1970, because it already had a hospital.
- 120 Ernest A. Manning, Letter to Dr. H. S. Armstrong, 17 January 1966, Office of the President.
- 121 Ibid., 1.
- 122 Ibid., 2.
- 123 Ibid., 3.
- 124 J. Donovan Ross, "\$190,000 Grant for Medical Library Facilities May Rate with Best," *Calgary Herald*, 31 March 1966. One-half of the books were in languages other than English, and were essentially useless.
- 125 James C. Mahaffy, Foothills Hospital Board meeting, AHSA, 12 October 1966; also see McNeil, *Medicine of My Time*, 205.
- 126 Robert Lampard and Barbara Kermode-Scott, *Medicine Makes a Wonderful Life* (self-published, 2019).
- 127 William A. Cochrane, interview with Robert Lampard, 6 June 2005.
- 128 William A. Cochrane, interview with Robert Lampard, 8 January 2014.
- 129 William A. Cochrane, interview with Robert Lampard, 16 April 2015.
- 130 William A. Cochrane, interview with Robert Lampard, 8 January 2014.

NOTES TO SIDEBAR 1

- 1 J. Donovan Ross, *Calgary Albertan*, 24 and 26 April 1969. Dr. Ross was a Social Credit MLA (1952–72) and minister of health (1957–69) in the Manning government. He resigned his health-care post in protest over the federal government's intrusion into a provincial jurisdiction (Medicare). Dr. Ross had succeeded Dr. W. W. Cross as minister of health in 1957, when Dr. Cross resigned because of the

- implementation by the federal government of the Laboratory and Hospital Services Insurance Program, also on a 50/50 cost-sharing basis.
- 2 Government of Alberta, *An Act to Provide for the Establishment of Provincial General Hospitals* (7 April 1959), ch. 65. Known as the Provincial General Hospitals Act, the Act would eventually have the Glenrose, W. W. Cross Cancer, and Alberta Children's Hospitals incorporated under it. They were all charged with "providing educational facilities to medical [and other students]" and "employing the necessary medical [and other staff] for the proper operation of a teaching and treatment hospital."
 - 3 Alice T. MacKinnon, Margaret Blasius Fulkerth, and T. Bryan Campbell-Hope, *Hospitals of Alberta—Their Stories, 1890–2000* (self-published, 2006), 65. The hospital was sold to the government on 1 January 1970.
 - 4 J. Donovan Ross, "New Calgary Hospital Will Cost 15M," *Calgary Albertan*, 10 September 1960.
 - 5 James C. Mahaffy, Foothills Hospital Board meeting, Alberta Health Services Archives (AHSA), 25 July 1960.
 - 6 James C. Mahaffy, Foothills Hospital Board meeting, AHSA, 12 April 1961.
 - 7 Dr. Earle P. Scarlett, interview with Robert Lampard, 18 November 1968.
 - 8 Hugh A. Arnold, AMA Board meeting, 16–17 April 1964.
 - 9 James C. Mahaffy, Foothills Hospital Board meeting, AHSA, 14 May 1964. In a letter to Mr. Adshead dated 3 July 1964, Dr. Ross closed with the following words: "Trusting that this letter will indicate my continuing support for the Foothills Hospital to be built into the major diagnostic centre for southern Alberta."
 - 10 James C. Mahaffy, Foothills Hospital Board meeting, AHSA, 30 June 1966. The first geographic full-time Foothills Hospital department heads and MAC members were John W. Dawson (internal medicine, U of T), Neville J. Jackson (surgery, Britain), Harry Brody (obstetrics and gynecology, U of A), Keith I. Pearce (psychiatry, U of T), Fred L. Parney (anesthesia, U of A), Jack E. Newell (pathology, UBC), Hector Duggan (radiology, U of A), and L. Reg. Adshead (former CEO, UAH, Edmonton), John M. Phin (medical director, U of T). Murray Colwell and Donald H Truscott represented pediatrics until Dr. Cochrane arrived.
 - 11 James C. Mahaffy, Foothills Hospital Board meeting, AHSA, 10 January 1966.
 - 12 Reginald Adshead, Liaison Development Committee (LDC) meeting, 10 November 1966. The minutes are included in the Foothills Board minutes, which are deposited with AHSA in Calgary. Also filed in UARC 85.45 file 15.8.
 - 13 Ibid.
 - 14 Robert Lampard, presentation to the Foothills Hospital Board, November 1980. For an anecdotal history of the Foothills Hospital, see Jack Peach, *A Shelter From the Winds of Illness: Foothills Hospital, 1966–1991: Celebrating a Quarter Century* (Calgary: Foothills Hospital, 1991).

NOTES TO CHAPTER 1: THE DEAN COCHRANE YEARS

- 1 As quoted by Dr. Cochrane in his speech on "Connaught Laboratories and the Biological Industry: New Boy's Perception," November 1979. Copy in the Cochrane family archives.
- 2 Reginald Adshead et al., "Approval of Dean Unanimous," *Calgary Herald*, 11 January 1967.
- 3 William A. Cochrane, Letter to L. R. Adshead, 23 March 1967, and L. R. Adshead's Letters to Dr. Cochrane, 21 February and 18 March 1976, UARC 2000.075 file 46.05. The acting pediatric director appointment was confirmed by the Foothills Hospital Board on 10 April 1967.
- 4 William A. Cochrane, Letter to Reginald Adshead, 22 April 1967. Dr. Dawson was already on salary from the

- hospital, which was continued. Dr. Cochrane had no additional funds to add Drs. David Dickson, Stanley Rowlands, and Lionel McLeod to the faculty until 1 July 1968.
- 5 William A. Cochrane, "Doctors Training Near," *Calgary Albertan*, 26 April 1967. Dr. Cochrane had known Dr. Dawson since his U of T medical school days.
 - 6 A. David Dickson, John Read, John Dawson, and William A. Cochrane, "Planning for Medical Education at the University of Calgary," *Canadian Medical Association Journal* [henceforth *CMAJ*] 100 (1969): 665–9. To minimize duplication, Dr. Dawson circulated a brochure outlining all the CME programs in Western Canada planned for the year. Also see Walter Nagel, "MDs to Graduate in City by 1975," *Calgary Herald*, 26 April 1967.
 - 7 Walter Nagel, "\$30 Million Price Tag Set On Med School," *Calgary Herald*, 5 October 1967.
 - 8 William A. Cochrane, Letter to L. R. Adshead, 19 September 1967. Dr. Cochrane initially contemplated a 1 September 1971 starting date and assumed the Faculty of Medicine building would be opened by then.
 - 9 *Ibid.*
 - 10 "W. T. Josenhans et al., *Committee on Medical Education*, 30 March 1964–6 December 1966, Dalhousie Medical School. The committee visited Western Reserve University for two days and sent individual members to other innovative programs in the United States. The committee's report included a thirty-eight-page summary, with recommendations on how to transition to a systems-based curriculum. The report also included an extensive bibliography. (Note: there were two Dr. Dicksons at Dalhousie—Dr. Robert C. Dickson, professor and head of medicine, and Dr. A. David Dickson, an anatomist who was on the committee and came to Calgary on Dr. Cochrane's invitation in 1968.)
 - 11 George Miller et al., *Teaching and Learning in Medical School* (Cambridge, MA: Harvard University Press, 1962). Also see, Lawrence Fisher and Cyril Levene, *Planning a Professional Curriculum: A Guide to Understanding Program Design* (Calgary: University of Calgary Press, 1989), 4–5, for a synopsis of the changes that occurred.
 - 12 N. Tait McPhedran, *Canadian Medical Schools: Two Centuries of Medical History, 1822–1992* (Montreal: Harvest House, 1993), 167–8. For more, see Louis Horlick's biography, *J. Wendell Macleod, Saskatchewan's Red Dean* (Montreal: McGill-Queen's University Press, 2007), 47–51, 68, 71–3; Dr. Wendell Macleod's review of *Medical Schools and the Changing Times: 1950–1960* by P. V. Lee, *Milbank Memorial Fund Quarterly* 42 (March 1964): 98–112; and "Curriculum in Canadian Medical Education," *CMAJ* 88 (1963): 705–12. Macleod sat on the MacFarlane Medical Education Committee (1962–4), which drafted a report for the Hall Commission and was a consultant to the four new faculties that resulted.
 - 13 Thomas H. Hamm, "Medical Education at Western Reserve University," *New England Journal of Medicine* 267 (15 October 1962): 868–74, and (1 November 1962): 916–23.
 - 14 William A. Cochrane, "Background Information on the Origin and Development of the Faculty of Medicine at the University of Calgary" (10 September 2013), 13. Copy in the possession of Robert Lampard. Dr. William B. Spaulding described Dr. Evans's curriculum approach in *Revitalizing Medical Education: McMaster Medical School, the Early Years, 1865–1974* (Hamilton, ON: B. C. Decker, 1991), 28–9. The objectives Dr. Cochrane followed are outlined in the Final Report of the Special Committee on Medical Education, Dalhousie University (5 December 1966), 1–2 and 11–14. The McMaster and U of C objectives and curriculum organization were very similar, but the teaching approach differed. Of the U of C presentations, 45 per cent were didactic, while none of the McMaster ones were.
 - 15 Walter Nagel, "Maybe Specialists Will Not Overshadow Family Medical Doctor Says Dean,"

- Calgary Herald*, 12 August 1967, and “UofC to Reverse GP Decline,” *Calgary Albertan*, 28 September 1967.
- 16 Walter Nagel, “Feedback Plan Forecast,” *Calgary Herald*, 8 August 1967.
- 17 Walter Nagle, “Radical Changes Planned for Medicine at UofC,” *Calgary Herald*, 4 October 1967.
- 18 William A. Cochrane, “Original Goals and Philosophy of the School,” in *Educational Policies and Philosophy of the Medical School*, ed. Drs. John Baumber and Mark Bisby, Medical Education Day conference, 22 March 1982, (University of Calgary), 1–9. Also see William Cochrane, “Philosophy and Program for Medical Education,” *CMAJ* 98 (1968): 500–5.
- 19 Ibid.
- 20 Walter Nagel, “Radical Changes Planned for Medicine at UofC,” *Calgary Herald*, 4 October 1967. For more see the *Calgary Albertan*, 4 October 1967.
- 21 William A. Cochrane, “Philosophy and Objectives regarding Patient Care, Teaching and Research related to the Facilities on the Foothills Health Sciences Complex,” UARC 85.45 file 15.08, n.d.
- 22 Walter Nagle, “\$30 Million Price Tag Set on Medical School,” *Calgary Herald*, 5 October 1967.
- 23 Cochrane, “Philosophy and Program for Medical Education,” 500–5.
- 24 William A. Cochrane, interview with Robert Lampard, 8 January 2014.
- 25 Cochrane, “Philosophy and Program for Medical Education,” 500–5. Also see, “Doctors Journal Praises City Medical School,” *Calgary Herald*, 14 March 1968.
- 26 Cochrane, “Background on the Origin and Development of the Faculty of Medicine,” 13. This is further described in Dr. Cochrane’s paper “On the Planning of the Health Science Center,” in Architect Cook and Associates, *HSC Academic Plan*, 7, released in the summer of 1970, UARC 99.053 files 5.01-5.10 and 17.02. The objectives were refined by the FC and the Committee on Medical Education on 11 October 1968 in their “Curriculum Development” document 1, 2, UARC 2000.041 file 7.07.
- 27 College of Physicians and Surgeons of Alberta 1972, minute no. 13, and 1973, minute no. 50, held at the headquarters of the College of Physicians and Surgeons of Alberta, Edmonton. A two-year residency requirement in family medicine was approved “in principle” on 20 March 1972. The next year, the requirement was approved for implementation on 1 January 1976, when there was sufficient funding for the second year of training. Alberta was the first Canadian province to require a two-year residency.
- 28 William A. Cochrane, “Tremendous Interest in Medical School,” *Calgary Herald*, 25 January 1968
- 29 Walter Nagel, “Computer Diagnosis Coming, says University Medical Chief,” *Calgary Herald*, 31 January 1968; “Dramatic Medical Advances Foreseen,” *Calgary Herald*, 15 November 1968.
- 30 William A. Cochrane, “New Role Urged for Family MD,” *Calgary Herald*, 31 January 1968.
- 31 Ibid.
- 32 William A. Cochrane, “Dr. Cochrane touring US,” *Calgary Herald*, 20 March 1968.
- 33 William A. Cochrane, interview with Robert Lampard, 8 January 2014.
- 34 Affiliation Agreement between the University of Calgary and the Foothills Provincial General Hospital, signed 1 April 1968; it covered joint appointments and CTUs. See UARC 85.45 file 11.5.
- 35 James C. Mahaffy, Foothills Hospital Board meeting 8 January and 22 February 2018.
- 36 Walter Nagle, interview with Dr. McLeod, as noted in “Doctor Urges Medical Schools to Listen to Community Needs,” *Calgary Herald*, 2 August 1968.
- 37 William A. Cochrane, “FP to Head Team,” *Calgary Herald*, 17 August 1967.
- 38 Dickson et al., “Planning for Medical Education,” 665–9.

- 39 A. David Dickson et al., "Curriculum Development," 5–6, UARC 2000.041 file 7.07. For an example of the knowledge, skills, and attitude required by a student in the U of C curriculum, see David Dickson's "The Place of Anatomy in a New Canadian Medical School," *CMAJ* 100 (1969): 611–14. For an abridged summary, see Stanley Rowlands, "The Faculty of Medicine, the University of Calgary," *Calgary Albertan*, UARC 2000.041 file 7.07 and 2000.075 file 16.07.
- 40 Fisher and Levene, *Planning a Professional Curriculum*.
- 41 My two sons graduated with MDs from U of C. They did electives in Yellowknife, Saint John, Cusco, Peru, and Harare, Zimbabwe.
- 42 Dickson et al., "Curriculum Development." The complete document was thirty-two pages plus eighty-four appendices, and was completed 3 April 1970; see UARC 2000.041 file 7.07.
- 43 Ibid., 1–2.
- 44 In an interview with Robert Lampard (10 September 2013), Peter Price commented on how difficult defining "core" was. Dr. McPhedran, he said, described it as like eating an apple. You ate it down to the core then threw it away and started again.
- 45 William A. Cochrane, "Organization and Rules of Procedures for the Committee on Medical Education," May 1969, 4, UARC 2000.042 file 16.18.
- 46 See Dickson et al., "Curriculum Development" for a detailed description of the organization.
- 47 Rowlands, "The Faculty of Medicine," UARC 2000.041 file 7.07.
- 48 Fisher and Levene, *Planning a Professional Curriculum*, 115. The description is based on the nearly complete study guide provided by first class member Craig Maishment.
- 49 Henry Mandin, personal communication with Robert Lampard, 10 March 2015. Dr. Mandin estimated there were three to four hundred common diagnoses and ten times that number of known diagnoses. For a brief discussion of the various curriculums (discipline-based, problem-orientated, competency, and student-orientated) see Fisher and Levine, *Planning a Professional Curriculum*, 84–92. The book antedates the Mandin-initiated clinical presentation curriculum of 1993.
- 50 Frank J. Papa and Peter H. Harasym, "Medical Curriculum Reform in North America, 1765 to the Present: A Cognitive Science Perspective," *Academic Medicine* 74 (1999): 158–60.
- 51 William H. Swift, "Universities Face Growth Setback," *Calgary Herald*, 18 October 1967.
- 52 Walter Nagel, "Medical School Could be 'Bargain,'" *Calgary Herald*, 3 November 1967.
- 53 Walter Nagel, "\$30 Million Expansion Predicted for UofC," *Calgary Herald*, 25 January 1967.
- 54 William A. Cochrane, Status Report, 2p, January 1968, UARC 2000.042 file 16.18. Also see Walter Nagel, "\$30 Million Price Tag Set," *Calgary Herald*, 5 October 1967, and "Dean of Medicine Hopeful Despite Spending Cut-Back," *Calgary Herald*, 6 December 1967.
- 55 William A. Cochrane, Letter to Premier Manning, 12 September 1967, UARC 2000.041 file 7.09.
- 56 Frank Swanson, "Need Is Now. University Expansion," *Calgary Herald*, 16 January 1968.
- 57 William A. Cochrane, interview with Robert Lampard, 16 April 2015.
- 58 William A. Cochrane, "Medical School Go Ahead Draws Cheers at UofC," *Calgary Herald*, 20 February 1968. Dr. Cochrane had visited Premier Manning in September 1967 and had been reassured he had the flexibility to not replicate the U of A medical model.
- 59 Jiggs Cook, "Four Firms to Spearhead UofC Med School Work," *Calgary Herald*, 20 March 1968. George Agron was engaged as the planning consultant on 22 May 1968.
- 60 Jiggs Cook, Letter to George Agron, 17 July 1968, UARC 99.053 file 5.09.

- 61 Walter Nagle, "Medical School on Schedule," *Calgary Herald*, 4 December 1968. Dr. John Read, a pediatrician (and the father of skier Ken Read), came to the faculty from Queen's University as the first division head in community medicine. Initially there were few faculty to request space, thus Dr. Cochrane's request for "flexibility." Dr. Gerry Scott succeeded Dr. Read when the actual construction began.
- 62 William A. Cochrane, *Final Report to the Architects*, 15 October 1968, UARC 99.053 files 05.01–05.10.
- 63 J. H. Cook, Letter to Harvey Bliss, 28 November 1968, UARC 99.053 file 5.09. The comparable Cook used was the United States Public Health Service, Hospital and Medical Health series, *Health Professions Education: Medical Education Planning. A-1b Medical Education Facilities*, PHS Publications 1180, A-b1 Superintendent of Documents (Washington, DC: US Government Printing office, 1964). Cook found the American document inflexible and out of date. UARC 99.053 file 5.03.
- 64 Dorothy Dickson, interview with Robert Lampard, 10 August 2017. Dorothy Dickson was the wife of Dr. David Dickson.
- 65 J. H. Cook, Letter to Harvey Bliss, 4.
- 66 Spaulding, *Revitalizing Medical Education*, 126–34.
- 67 Robert B. Church, personal communication, 8 January, 2015. This brought utilities to within thirteen feet of any place in the building, allowing the space to be used for offices or a laboratory.
- 68 William A. Cochrane, Letter to A. W. R. Carrothers, 3 February 1969, UARC 99.053 file 6.08.
- 69 William A. Cochrane, interview with Robert Lampard, 8 January 2014.
- 70 Reginald Adshead, Joint Liaison Committee meeting, 5 December 1969, as noted at the Foothills Board meetings on 20 November 1969 and in January 1970, Alberta Health Services Archives (AHSA). Also see the letter from J. D. Campbell, the deputy minister of health, to Dr. W. A. Cochrane, 5 December 1968, UARC 2000.075 file 47.07.
- 71 Walter Nagle, "32 Medical Students Expected Here in '70," *Calgary Herald*, 26 February 1969.
- 72 James C. Mahaffy, Foothills Hospital Board meetings, AHSA, 17 April 1968 and 20 November 1969.
- 73 William A. Cochrane, interview with Robert Lampard, 8 January 2014.
- 74 William A Cochrane, interview with Robert Bott, U of C, 6 June 1990, UARC 88.025 file 101.
- 75 Keith MacCannell, *Report of Faculty on Visits to Case Western Reserve, Mount Sinai and Temple Schools of Medicine*, 31 July 1969, UARC 99.053 file 16.04.
- 76 Andrew Stewart, University's Commission compared the cost of the Calgary medical school (\$34.30/sq. ft.) with the Basic Medical Sciences Building, Edmonton (\$35.23/sq. ft.), Medical Sciences Building, Toronto (\$43.27/sq. ft.), Dalhousie Medical School (\$47.00/sq. ft.), and McMaster (\$54.00/sq. ft.); see 3 July 1969, UARC 99.053 file 5.01. The University's Commission approved \$15 million to 15 March 1972, a project-management contract on 25 July 1969, and \$5 million toward the building cost after 1972; UARC 99.053 file 8.01. BOG chair L. A. Thorssen appealed to Minister Henderson, saying the government had estimated the cost at \$25 million in 1965. The ACC was now included in the building estimate. At \$34.30 per square foot, it was the same cost as the projected Centennial Hospital in Edmonton; UARC 2000.041 file 7.08.
- 77 James C. Mahaffy, Foothills Hospital Board meeting, 16 September 1968, AHSA.
- 78 Thomas C. Saunders, Appendix F, in *Teachers of Medicine* (Calgary: University of Calgary Press, 1987), 163–6.
- 79 James D. Henderson, *Calgary Albertan*, 24 May 1969. Dr. Ross resigned on 23 April 1968.
- 80 James D. Henderson, "Ross Hands in Health Portfolio," *Calgary Albertan*, 24 April 1969. Also see the *Calgary Albertan*, 21 May 1969, for the official transfer in the legislature.

- 81 William A. Cochrane, Letter to Hon. J. D. Henderson, 6 August 1970, UARC 2000.41 file 7.09. Dr. Cochrane later wrote a cautionary letter to Mr. Henderson explaining that the Foothills Hospital was a teaching hospital, not solely a service “institution.” Dr. Carrothers convinced him not to send the letter; UARC 2000.031 file 7.09.
- 82 James D. Henderson, “Blair Report on Mental Health,” Press Release, 20 June 1969, UARC 99.053 file 16.09. Dr. W. R. N. Blair, the head of psychology at U of C, recommended in his 1968 report that mental health services be general hospital-based, and that no further additions be made to the provincial mental hospitals. For a summary of the report, see Walter Nagle, “Community Involvement ‘Must’ for Mental Health,” *Calgary Herald*, 1 December 1969.
- 83 Gerald Holman, “Pediatrics Department Head named by UofC, Hospital,” *Calgary Herald*, 9 April 1969.
- 84 Harry Brody, “Division Head,” *Calgary Herald*, 17 September 1969.
- 85 William A. Cochrane, “City Doctors Fill Med School Posts,” *Calgary Herald*, 4 March 1970. For a list of the nine department heads already appointed, see “Calgary Names New Department Heads,” *Medical Post*, 15 July, 1969.
- 86 William A. Cochrane, Minutes of Forays 1, 2, 4 on 15 January, 15 April, UARC 2000.042 file 12.12, and FC letter/position paper/chart in UARC 99.053 file 5.15 and 2000.042 files 12.12, 16.18, 16.19.
- 87 William A. Cochrane, Faculty Meeting, 12 November 1969, UARC 2000.042 file 12.12.
- 88 William A Cochrane, “Twenty-Four Join Medical Faculty,” *Calgary Herald*, 28 October 1970.
- 89 Andrew Stewart, Letter to L. A. Thorssen, 25 July 1969, UARC 99.053 file 8.01.
- 90 Anthony Rasporich, *Make No Small Plans: The University of Calgary at Forty* (Calgary: University of Calgary Press, 2007), 33.
- 91 William Cochrane, Press Release, 18 August 1969, UARC 2000.042 file 18.06.
- 92 William A Cochrane, Press Release, [18?] August 1969, UARC 2000.042 files 17.06, 87.9, and 12.4. Also see his letter to Mr. Adshead confirming the trip and resigning as the director of pediatrics at the Foothills Hospital, 10 April 1969, UARC 2000.075 file 46.05.
- 93 James D. Henderson, Letter to L. A. Thorssen, 13 August 1969, with the attached Order-in-Council creating the cabinet committee, UARC 2000.041 file 17.06.
- 94 Tyler Trafford, *By Own Forces: The Biography of Jack Simpson* (Calgary: Simpson, 1999), 31, 146–14. Also see “Tenders Invited for University,” *Calgary Herald*, 1 November 1969.
- 95 William Cochrane, FC meeting, U of C Faculty of Medicine Files, 28 January 1970.
- 96 William A. Cochrane, “Med School Sod Turning Set Monday,” *Calgary Herald*, 27 February 1970, and “First Sod Turned for Med School,” *Calgary Herald*, 2 March 1970. A month later, Dr. Cochrane reported that a “doctor shortage [is] possible here. Britain may restrict emigration,” *Calgary Herald*, 16 March 1971.
- 97 Jiggs Cook and William A. Cochrane: see the three red booklets dated 27 February 1969 on the (1) Academic Program, (2) Educational Facilities, and (3) A Suggested Phase 1 Projection. Dr. Cochrane said that the red books, along with his instructions, constituted the academic program for the medical school. Presented to the twenty-seventh meeting of the Capital Development Committee and the Health Sciences Committee of the Board of Governors, 26 February 1969, UARC 99.053 file 5.15. It was forwarded to Dr. Andrew Stewart, chair of the University’s Commission, by BOG chair L. A. Thorssen on 12 June 1969; see UARC 99.053 file 8.01. The total space was 553,500 square feet (gross) or 309,960 net square feet in a 400 by 370 foot structure (or 120 metres by 114 metres).

- 98 Walter Nagel, "Prudence Need Not Be Plodding," *Calgary Herald*, 23 October 1970. Architect Victor Jackson was seconded by the university to the Dean's Office to improve communication and reduce the cost, time, and worry over many of the construction tenders. Jiggs Cook spoke to the local branch of the Engineering Institute of Canada on 3 November 1970. Construction was so fast that the project ran out of money on one occasion. On another, a three-week strike led to a reordering of the construction schedule, which actually shortened the construction time.
- 99 McDougall, *Teachers of Medicine*, 181.
- 100 William A. Cochrane, interview with Robert Lampard, 8 January 2014.
- 101 Robert Church, interview with Robert Lampard, 16 July 2015. The eight- and twenty-foot research lab counters and modules were designed by university architect Jim Goodwin and the patent sold to Versa Services in the United States, earning \$3 million in royalties, which helped fund the renovations.
- 102 Keith MacCannell, *Faculty of Medicine Admission Requirements* (corrected copy), UARC 2000.042 file 16.18 and UARC 99.053 file 2.15.
- 103 Keith MacCannell, *Admission to the Faculty of Medicine* (ca. 1969), 1, UARC 99.053 file 2.15.
- 104 Muriel Kovitz et al., *Entry into Medical School: The Approach of a New Faculty. The Academic, Family Practitioner, Medical Student and Community Representatives Viewpoint*, UARC 99.053 file 2.15.
- 105 William A. Cochrane, "Medical applications increase," *Edmonton Journal*, 2 January 1971.
- 106 James B. Hyne, Medical Science Masters Committee. The first meeting was 9 May 1969; see UARC 99.953 file 5.15.
- 107 William A. Cochrane, "Statement forwarded to the Assessment Group, MRC," [n.d.; 1969?], UARC 99.053 file 8.15.
- 108 Keith Cooper, Letter to Dr. W. A. Cochrane, 4 April 1972. Terms of Reference approved at the 30 January 1970 Research Committee meeting were attached. UARC 2000.075 file 33.05.
- 109 Keith MacCannell, *Research Grant Check List*, 3 June 1971, UARC 2000.075 file 33.05.
- 110 John Baumber et al., *Report of the Working Group to investigate the Rationale of Research Groupings*, 3 August 1973, 1–3, UARC 2000.075 file 30.01.
- 111 William A. Cochrane, Letter to Dr. Malcolm Brown, 8 August 1969, UARC 99.053 file 9.16. Also see "Professor Gets Medical Research Post," *Calgary Herald*, 28 October 1971.
- 112 Stanley Rowlands, Letter to Dr. W. A. Cochrane, 21 December 1917, UARC 99.053 file 1.19.
- 113 Marjorie P. Wilson, Report of the LCME, 18, and the RCPSC On-Site Survey report, 89. Received 1 February 1971; copies in the Dean's Office. For more on the actual application and starting dates of the residency training programs to 1984, see Mary Nemeth, "The Evolution of Graduate Clinical Education in Calgary," (ca. 1974), 70–90, copy in possession of the author and included in McDougall, *Teachers of Medicine*, 107–42.
- 114 Wilson, Report of the LCME, 13–14.
- 115 Ibid, 8.
- 116 Ken Pugh, "Cost of Medical Education in Alberta," 114, October 1971, UARC 85.45 file 11.6. In a 6 December 1971 letter to President Carrothers, Professor Tom Flanagan called the Pugh report the most illiterate document that had ever crossed his desk; see UARC 85.45 file 11.6. The committee members refused to sign the report; only the chairman did.
- 117 William A. Cochrane, "UofC Paves Way for Med Students," *Calgary Herald*, 19 August 1970 and 4 September 1970. The Cochrane and Carrothers opening day presentations were highlighted in "Family Practice Takes Priority at Calgary's New Medical School," *Canada Family Physician* 16 (1970): 112–13.
- 118 Gordon Ford, interview with Robert Lampard, 16 April 2016.

- 119 Ibid.
- 120 A. David Dickson, "Curriculum Development," 16–18, UARC 2000.041 file 7.07.
- 121 Fisher and Levene, *Planning a Professional Curriculum*, 115.
- 122 Ibid., 5–6
- 123 Dickson, "Curriculum Development," 6, UARC 2000.041 file 7.07.
- 124 Wilson, Report of the LCME, 14–15. Also see the extensive discussion of "The Family as a Unit of Medical Care," at Foray #3, 12 February 1969, UARC 2000.042 file 12.12.
- 125 Ibid., 18.
- 126 Peter Price, interview with Robert Lampard, 10 September 2013.
- 127 This position evolved into a coordinator-student affairs on 1 June 1972 and has continued ever since; see UARC 99.053 file 1.19; also noted in "Eavesdrops," *Calgary Albertan*, 8 May 1970. For more details, see Dr. Cochrane's letter to the faculty on 4 January 1971, UARC 88.053 file 17.01
- 128 D. George Wyse, personal communication, 6 July 2011, and William A. Cochrane, "Family Practice Takes Priority at Calgary's New Medical School," *Canadian Family Physician* 16, no. 10 (October 1970): 112–13.
- 129 Henry Mandin, reflections on the "do-it-yourself-curriculum," an innovative approach: personal communication, 10 March 2015. Also see "Medical Education in Alberta," for the objectives of a student internship, UARC 2000.042 file 16.19, and "Clinical Clerkship," a letter from L. E. McLeod to David Dickson, 31 December, 1973, UARC 99.053 file 15.06.
- 130 William Cochrane, Letter to the Faculty, 4 January 1971, UARC 99.053 file 17.01. The program was continued on a voluntary basis.
- 131 Christopher J. Eagle, Penny Jennett, and Henry Mandin, "Learning Issues Identified Using Standardized Patients in a Problem-Based Learning Course," *Annals of Community-Orientated Education* 5 (1992): 269–79.
- 132 There were six articles published on the U of C program from 1968 to 1974, then almost none until the *Planning a Professional Curriculum* book was published in 1989, followed by fifty-seven more articles from 1989 to 2012, after the clinical presentation program was initiated (see W. Woloschuk, UME Publications 1968–2012, UME office). By comparison, McMaster authors published more than a hundred articles and edited/published four books from 1967 to 1989 on their PBL program. See Spaulding, *Revitalizing Medical Education*, 223–8.
- 133 Fisher and Levene, *Planning a Professional Curriculum*, 141–75.
- 134 J. S. Beck, "Problems in the Implementation of the Mastery Model to July 1981," UARC 2000.041 file 15.17.
- 135 Edward J. Love, Committee on Evaluation, UARC 2000.065 files 2.16 and 2000.068 file 2.25. Also see UARC 2000.014 file 15.17 for a discussion of the pass/fail rationale.
- 136 Edward J. Love, *Student Evaluation Procedures*, 15 July 1971 (revised 15 January 1973), UARC 2000.068 file 2.16.
- 137 Fisher and Levene, *Planning a Professional Curriculum*, 35–48.
- 138 William A. Cochrane, "Applicants flood UofA med school," *Edmonton Journal*, 2 January 1971.
- 139 William A. Cochrane, Western Deans meeting, Edmonton, 12 September 1970, UARC 99.053 file 3.06. Topics included evaluation technics, programs for teachers, current initiatives, remote (northern) medical care, CME, teaching approaches, the coordination of visiting speakers and seminars, exchanges for clinical clerkships, research collaboration to minimize duplication, and a one-day educational meeting.

- 140 Robert B. Church, Letter to Dr. W. A. Cochrane, 12 July 1971; confirmed in an interview with Dr. Church, 1 August 2015.
- 141 William A. Cochrane, Draft Agreement between the Stoney Band Council and the University of Calgary dated 6 May 1971, UARC 2000.04 file 11.03.
- 142 “Chief John Snow, Chief Medicine Man,” *University Gazette*, 15 February and 20 July 1972. First Nations people came from as far away as Nordegg and High Level; see UARC 65.001 vol. 2. Catherine Whyte, the founder of the Archives of the Canadian Rockies in Banff, was similarly honoured at the same ceremony.
- 143 The original Morley proposal in 1971 is in UARC 2000.04 files 6.21 and 11.03. Progress reports are in files 11.02, 03, 04. The centre formally opened 20 July 1972. For a five-year status report, see the FC minutes of 12 January and 2 November 1977.
- 144 Alfred W. R. “Fred” Carrothers, Memorandum. Budget letter to the Faculty from the President on the Present Financial Condition of the University of Calgary, 29 February 1972, UARC 99.053 file 5.15.
- 145 William A. Cochrane, Letter to Dr. Carrothers, 23 March 1972, UARC 99.053 file 5.15.
- 146 H. G. Thomson, Letter to Malcolm E. Jones, BOG Chairman; confirmed at the special EFC meeting 16 June 1972. Thomson acknowledged there was a funding disparity between department head salaries at the Foothills and UAH hospitals. He promised to meet with AHSC chairman Dr. John Bradley to discuss it; see UARC 87.9 file 12.1.
- 147 Malcolm E. Jones, U of C Board minutes 11 April 1972, summarizes the meeting with Advanced Education Minister Foster et al.; see UARC 2008.052 file 4.01. Also see Dr. Cochrane’s letter to Dr. Carrothers on 3 May 1972, UARC 99.053 file 5.15, and Dr. Carrothers’s letter to the BOG about the meeting with the cabinet, himself, and Dr. Cochrane on 21 July 1972, UARC 87.9 file 12.6.
- 148 Lawrence A. Fisher, John Dawson, and Stanley Rowlands, *A Plan for the Reorganization of the Administrative Structure of the Faculty of Medicine* (University of Calgary, 1 June 1972), 25, UARC 2000.042 file 16.19 and 99.053 file 1.19.
- 149 William A. Cochrane, Letter to Messrs. Reg Adshhead (FH), Fred Lamb (RVH, District #93), Menzies Dyck (CGH), and Robert Innis (ACH), 18 December 1972, UARC 2000.075 file 46.05.
- 150 William A. Cochrane, Letter to Dr. Keith MacCannell, 10 February 1972, UARC 99.053 file 1.19
- 151 John S. Baumber et al., “The Rationale of Research Groupings,” circulated by Dr. Robert Church, 3 August 1973, 3, UARC 2000.075 file 30.01.
- 152 Keith Cooper, *Annual Report of the Research Committee for 1972*, UARC 2000.075 file 29.01 (n.d). The Research Committee suggested procedures for the Medical Trust Fund Committee; see UARC 2000.075 file 32.01, 5 May 1973.
- 153 Keith MacCannell, Letter to Heads of Divisions et al. on Research Funding at Calgary, 27 March 1973, UARC 2000.075 file 30.
- 154 William A. Cochrane, FC minutes 4 February 1972. The Committee on Research had surveyed the faculty to arrive at the 20 per cent figure, and said it was due to the faculty’s priority—developing a curriculum.
- 155 Keith MacCannell, Letter to Members of the Research Committee, 10 June 1974, UARC 2000.075 file 34.02.
- 156 Warren Veale, Letter to William Tatton, Research Committee chairman, 11 December 1975, UARC 2000.075 file 34.04.
- 157 Lionel E. McLeod, Letter to All Division Heads of the Faculty of Medicine, 17 October 1973; UARC 2000.075 file 30.01. Also see Dr. Cochrane’s letters on how the 1968 U of C Capital Campaign would benefit the Faculty, UARC 2000.042 file 15.14; and how fundraising would affect the (at that time) \$15 million funding by the government, Letter to Dr. Carrothers, 11 September 1969, UARC 99.053 file 5.1.
- 158 Kurt Weissenborn, “Calgary names new department heads,” *Medical Post*, 15 July 1969, and “UofA Man

- Named to Calgary Faculty,” *Calgary Herald*, 29 September 1968.
- 159 Robert B. Church, interview with Robert Lampard, 1 August 2015.
- 160 William A. Cochrane, “Ph.D. program approved,” 3 May 1973, UARC 2000.042 file 11.10.
- 161 Stephen Kimber, *IWK: A Century of Caring for Families* (Halifax: Nimbus, 2009), 65–8, 73–86. Also see Robert Lampard and Barbara Kermode-Scott, *Medicine Makes a Wonderful Life: The Life of Dr. William A. Cochrane* (Lampard, 2019), and Mervyn Graves, *ACH Order of Events Relating to Expansion Program and the Child Health Center*, 26 January 1960–16 July 1966, UARC 99.053 file 5.07.
- 162 William A. Cochrane, Letter to Dr. H. S. Armstrong, 23 January 1967, UARC 99.053 file 5.15.
- 163 William A. Cochrane, Letter to Dr. J. Donovan Ross, Minister of Health, 10 April 1967, UARC 99.053 file 5.15.
- 164 Gerald H. Holman, *A Brief on Child Health Care for Southern, Alberta, Presented to the Calgary Health Sciences Planning Committee*, 5 December 1969, UARC 99.053 files 11.15 and 11.19.
- 165 Gerald H. Holman, *Proposal for the Development of a Regionalized Perinatal and Neonatal Care in Southern Alberta*, UARC 99.053 file 15.21. Dr. Holman personally participated in the most difficult early transports.
- 166 Ian Burgess et al., *Report of the Advisory Committee for the Multiply Handicapped (Burgess Report) for the Department of Health and Social Development*, July 1972; confirmed by Robert Lampard in a personal communication from Dr. Burgess, 23 February 2019.
- 167 William A. Cochrane, FC meeting, U of C Faculty of Medicine, 25 October 1972.
- 168 Neil Crawford, Letter to Dr. W. A. Cochrane, 21 December 1972, UARC 2000.075 file 41.03.
- 169 Progress reports for the LCME and RCPSC were submitted by the faculty in January 1973. The LCME site visit was 2–5 April 1973. The RCPSC’s Specialty Committees and Committee on Evaluation did not make a site visit but reviewed the progress reports and then made its recommendations in a letter to Dr. Cochrane dated 15 June 1973; copies are filed in the Dean’s Office.
- 170 Richard M. Magraw et al., *Report of the Survey of the University of Calgary Faculty of Medicine*, 2–5 April 1973. The RCPSC recommendations were summarized in a letter to Dr. W. A. Cochrane by V. H. Skinner on 13 June 1973.
- 171 William A. Cochrane, interview with Robert Lampard, 16 April 2015.
- 172 William A. Cochrane, *Official Opening, Health Sciences Centre, the University of Calgary Scientific Program*, 28–31 May 1973, UARC 98.92 file 1.01; and the Official Opening Program covering 28 May–2 June 2 1973, UARC 2000.041 file 7.07.
- 173 William A. Cochrane, “Health Centre to Open,” *Calgary Albertan*, 28 May 1973. For the keynote presentations by J. Douglas Wallace on the role and responsibility of the medical profession to society and President Carrother’s presentation on the role and responsibility of the health sciences to society, see UARC 2000.075 file 25.10. Federal Health Minister Claude Castonguay was to speak but was unable to attend.
- 174 Keith Cooper and Karl Lederis, “Recent Studies of Hypothalamic Function in All of Us,” in *Recent Proceedings in Hypothalamus Research* (Basel, CH: A. G. Karger, 1975), as reported in the *U of C University Gazette*, 6 March 1975.
- 175 Stanley Rowlands, Letter to W. A. Cochrane, 18 June 1973, on the opening day ceremonies, UARC 2000.075 file 25.10.
- 176 Rasporich, *Make No Small Plans*, 34, 64–72.

NOTES TO SIDEBAR 2

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- 2 G. McDougall, ed., *Teachers of Medicine: The Development of Graduate Clinical Medical Education in Calgary* (Calgary: University of Calgary Printing Services, 1987), 148.
- 3 “CFP Profiles—John Corley,” *Canadian Family Physician* 17, no. 8 (1971): 17; D. I. Rice, “Acknowledging a ‘Pioneer’ in Family Medicine,” *Canadian Family Physician* 41 (1995): 1289. Born in Calgary, Dr. Corley graduated from the University of Alberta in 1942 and went into practice in Calgary after postgraduate training at the Colonel Belcher Hospital. Corley was a founding member of the College of General Practice of Canada (renamed the College of Family Physicians of Canada in 1967) and was president of the Alberta chapter in 1963. He died on 25 January 1995 at Kiawah Island, South Carolina. In 1966, the college introduced two experimental residency programs—one at St. Joseph’s Hospital in London, Ontario, and the other at the Calgary General Hospital. Corley was director of the Calgary program. He developed an interest in assessing and evaluating residency training and in 1969 was appointed chief examiner of the college, a position he held until he left to accept a position as professor and chief of the Division of Evaluation in the Department of Family Practice, Medical University of South Carolina in Charleston.
- 4 McDougall, *Teachers of Medicine*, 149.
- 5 Ibid.; M. Dolgoy, “The First Ten Years of the College of General Practice (Alberta Division),” *Canadian Family Physician* 15, no. 2 (1969): 71–3, 75–6.
- 6 D. Woods, *Strength in Study: An Informal History of the College of Family Physicians of Canada* (Toronto: College of Family Physicians of Canada, 1979), 161–2; J. B. Corley et al., “Graduate Training in Family Medicine at Calgary General Hospital, 1965–1969: A Research and Evaluation Project,” *Canadian Family Physician* 16, no. 1 (1970): 105, 107, 109–12.
- 7 Ibid.; McDougall, *Teachers of Medicine*, 47.
- 8 McDougall, *Teachers of Medicine*, 149; D. I. Rice, “Family Practice Training—A Perspective,” *Canadian Family Physician* 14, no. 6 (1968): 41–51; J. Horder, “Professor Ante Vuletić,” *Journal of the Royal College of General Practitioners* 27, no. 185 (1977): 766.
- 9 McDougall, *Teachers of Medicine*, 149.
- 10 Editorial, “Certified Specialists in General Practice,” *CMAJ* 94 (1966): 50, 53.
- 11 Corley et al., “Graduate Training in Family Medicine at Calgary General Hospital 1965–1969: A Research and Evaluation Project,” *Canadian Family Physician* 16, no. 1 (1970): 105, 107, 109–12; McDougall, *Teachers of Medicine*, 48.
- 12 Corley et al., “Graduate Training in Family Medicine at Calgary General Hospital 1965–1969: A Research and Evaluation Project,” *Canadian Family Physician* 16, no. 1 (1970): 105, 107, 109–12; “Plan Course For Graduate In Medicine,” *Calgary Herald*, 16 September 1965.
- 13 McDougall, *Teachers of Medicine*, 47.
- 14 Corley et al., “Graduate Training in Family Medicine at Calgary General Hospital 1965–1969: A Research and Evaluation Project,” *Canadian Family Physician* 16, no. 1 (1970): 80–2, 85–8, 105, 107, 109–12; J. B. Corley et al., “Graduate Training in Family Medicine at Calgary General Hospital 1965–1969: A Research and Evaluation Project,” *Canadian Family Physician* 15, no. 10 (1969): 112, 114, 117, 119, 121; J. B. Corley et al., “Evaluation of Graduate Program, Calgary General Hospital,” *Canadian Family Physician* 15, no. 11 (1969): 111–15, 117.
- 15 McDougall, *Teachers of Medicine*, 146.
- 16 Corley et al., “Graduate Training in Family Medicine at Calgary General Hospital 1965–1969: A Research and Evaluation Project,” *Canadian Family Physician* 16, no. 1 (1970): 105, 107, 109–12; “Certified Specialists in General Practice,” 50, 53; Corley et al., “Graduate Training in Family Medicine at Calgary General Hospital 1965–1969: A Research and Evaluation

- Project,” *Canadian Family Physician* 15, no. 10 (1969): 112, 114, 117, [119]; “Plan New Courses,” *Globe and Mail*.
- 17 Corley et al., “Graduate Training in Family Medicine at Calgary General Hospital 1965–1969: A Research and Evaluation Project,” *Canadian Family Physician* 15, no. 10 (1969): 112, 114, 117, [119]; J. Corley, “The W. Victor Johnston Oration: The Evolution of the Family Physician,” *Canadian Family Physician* 16, no. 2 (1970): 25–7, 29.
- 18 McDougall, *Teachers of Medicine*, 150.
- 19 D. I. Rice, “Family Practice Training,” 41–51.
- 20 McDougall, *Teachers of Medicine*, 114.
- 21 Corley et al., “Graduate Training in Family Medicine at Calgary General Hospital 1965–1969: A Research and Evaluation Project,” *Canadian Family Physician* 15, no. 10 (1969): 112, 114, 117, [119], 121.
- 22 McDougall, *Teachers of Medicine*, 48.
- 23 “To Attract Students MD Urges Upgrading of the Family Doctor,” *Globe and Mail*, 15 May 1968.
- 24 Ibid.
- 25 Ibid.
- 26 Rice, “Family Practice Training,” 41–51.
- 27 McDougall, *Teachers of Medicine*, 48.
- 28 Woods, *Strength in Study*, 161–2; “Twelve MDs Receive ‘First,’” *Globe and Mail*, 2 October 1969; B. K. E. Hennen, “Academic Family Medicine in Canada,” *CMAJ* 148 (1993): 1559–63.
- 29 “Black, Dr. Harvey Hugh de Burgh (Obituary),” *Globe and Mail*, 18 July 2000; A. Connery, “Dr. Bill Black – Established Family Medicine,” *Calgary Herald*, 5 August 2000; A. Connery, “Father of Family Medicine Honoured—Doctor Jumped at Chance to Work in Canadian Arctic,” *National Post*, 28 August 2000; “Deaths—Black, Harvey H., Priddis, Alberta,” *CMAJ* 163 (2000): 1539. Dr. Bill Black graduated with his MD from McGill University in 1943. He specialized in family medicine and received both a CCFP and FCFP from the CFPC. Dr. Black was formerly a member of the honorary staff and assistant director of the Department of Family Medicine, Calgary General Hospital, and assistant professor, Division of Family Medicine, University of Calgary. He died on 13 July 2000 at the age of eighty-five. His wife, Doreen, and three children survived him.
- 30 J. Giovannetti, “Retired Calgary Couple Has a Shared Passion for the Service of Strangers,” *Globe and Mail*, 27 March 2015.
- 31 W. A. Cochrane, “Vision of the Future Family Physician,” *Canadian Family Physician* 14, no. 3 (1968): 37–42; D. Spurgeon, “Training Lacks Funds, Doctor Says—GP As Key Man in Team of Health Scientists Forecast by Educator,” *Globe and Mail*, 27 March 1968.
- 32 Cochrane, “Vision of the Future Family Physician,” 37–42.
- 33 Rice, “Family Practice Training,” 41–51; “Reports to the Board of Directors,” *Canadian Family Physician* 14, no. 9 (1968): 15–17.
- 34 McDougall, *Teachers of Medicine*, 143–4, 94.
- 35 “Presentations (John B. Corley and A. T. Hunter),” *Canadian Family Physician* 15, no. 6 (1969): 17; A. G. Blunden, “College Chapter Histories—Alberta Chapter,” *Canadian Family Physician* 15, no. 9 (1969): 89.
- 36 Ibid.
- 37 Dolgoy, “The First Ten Years of the College of General Practice (Alberta Division),” 71–3, 75–6; “CFP Profiles—John Corley,” 17; D. I. Rice, “Acknowledging a ‘Pioneer,’” 1289.

NOTES TO SIDEBAR 3

- 1 William A. Cochrane, “Program and Philosophy for Medical Education at the University of Calgary,” *CMAJ* 98 (9 March 1968): 500–5.

- 2 Ruth Simkin, *Dear Sophie. Life Lessons in Feminism and Medicine* (Fairfield, CA: Bedazzled Ink, 2019), 17–21.
- 3 William A. Cochrane, “U of C Paves Way for Med Students,” *Calgary Herald*, 19 August 1970 and 16 September 1970.
- 4 Gordon Ford, interview with Robert Lampard, 16 April 2016. Dr. Ford indicated that his career choice of respiratory medicine was stimulated by Dr. Cochrane’s presentation the first day.
- 5 “Family Practice Takes Priority at Calgary’s New Medical School,” *Canadian Family Physician* 16, no. 10 (1970): 112–13. Also see “Student-Patient Contact Starts Early at New Calgary Medical School,” *CMAJ* 103 (1970): 776.
- 6 Craig Maishment, in letters to Robert Lampard dated 26 August and 3 September 2019, noted how teaching aids included Netter anatomical drawings from CIBA, the teachings of Masters and Johnson, movies from the Kinsey Institute in the GU system, and a voluminous variety of handouts. Still insufficient, he noted his parents “probably spent \$500 at \$25 per book on textbooks to supplement the study guides. It took me seven years to pay off my student debt.”
- 7 George Wyse, *Hearts, Minds, and Vision* (Calgary: Kingsley Publishing, 2012), 281–4. Reconfirmed by Dr. Wyse in a letter to Robert Lampard, 29 November 2019.
- 8 Rod W. Elford, “Continuity Course—Class of 1975,” phase I for the curriculum unit vi on “The Family in Health and Illness.” Personal copy of teaching materials from 1975, received from alumnus Dr. Currie Paddon, West Vancouver, BC.
- 9 William G. Hughson, interview with Robert Lampard, 6 and 7 December 2019. He recalled that the annual tuition was \$850 for an eleven-month academic year.
- 10 Lane Robson, interview with Robert Lampard, 10 December 2019.
- 11 Simkin, *Dear Sophie*, 36.
- 12 Wyse, *Hearts, Minds and Vision*, 282.
- 13 Craig Maishment, letter to Robert Lampard, 26 August 2019.
- 14 Lane Robson, interview with Robert Lampard, 10 December 2019.
- 15 Ibid.
- 16 Ray Lewkonja, et al., “A Comparative Study of Medical Curriculum Outcomes: Opinions of the Graduates of a Traditional Curriculum and an Innovative Curriculum,” in *Advances in Medical Education* (Basel: Springer, 1997), 554–6.

NOTES TO SIDEBAR 4

- 1 Cyril Levene, personal communication with Robert Lampard, 20 July 2005.
- 2 Ibid.
- 3 Ibid. The student who posted the turkey poster may have been Gordon Crawford.
- 4 Dr. J. Bromley, class of 1975, and Dr. Brent Mitchell, class of 1975, interview with Robert Lampard, 12 December 2017.
- 5 Ibid.

NOTES TO SIDEBAR 5

- 1 “Temporary Medical School Completed at University of Calgary,” *Canadian Family Physician* 16, no. 8 (1970): 17; “Family Practice Takes Priority at Calgary’s New Medical School,” *Canadian Family Physician* 16, no. 10 (1970): 112–13; “Student-Patient Contact Starts Early at New Calgary Medical School,” *CMAJ* 103 (1970): 776; “Foothills Hospital—Room For 32 Students At Temporary School,” *CMAJ* 103 (1970): 798–9.
- 2 Donald L McNeil, *Medicine of My Time* (Calgary: Maunders McNeil Foundation, 1989), 134.
- 3 Letter from Premier E. C. Manning to Dr. H. S. Armstrong, 17 January 1966, as cited in L. A.

- Thorssen, letter to Dr. A. Stewart, 16 May 1969, Library and Cultural Resources Digital Collections, University of Calgary, <http://contentdm.ucalgary.ca/digital/collection/ucpub/id/40412/> (accessed 19 March 2019).
- 4 “University of Calgary New School of Medicine,” *Journal of the National Medical Association* 62, no. 6 (1970): 420.
 - 5 A. David Dickson et al., “Planning for Medical Education at the University of Calgary,” *CMAJ* 100 (1969): 665–9.
 - 6 “Developing Medical Schools in Canada—the Faculty of Medicine, the University of Calgary, Calgary, Alberta,” *Journal of the Medical Association* (hereafter referred to as *JAMA*) 202 (1967): 184–5; “Developing Medical Schools in Canada—the Faculty of Medicine, the University of Calgary, Calgary, Alberta,” *JAMA* 206 (1968): 2006; A. D. Dickson, “The Place of Anatomy in a New Canadian Medical School,” *CMAJ* 100 (1969): 611–14; “Body Systems Approach to Teaching and Research Planned at University of Calgary,” *CMAJ* 101 (1969): 17; “Developing Medical Schools in Canada—the Faculty of Medicine, the University of Calgary, Calgary, Alberta,” *JAMA* 210 (1969): 1474–5; “Developing Medical Schools in Canada—the Faculty of Medicine, the University of Calgary, Calgary, Alberta,” *JAMA* 214 (1970): 1506–7; N. Tait McPhedran, *Canadian Medical Schools: Two Centuries of Medical History, 1822–1992* (Montreal: Harvest House, 1993), 226–35.
 - 7 William M Gibson, “Regional Needs and Medical Education in Family Practice,” *Canadian Family Physician* 19, no. 5 (1973): 119–20.
 - 8 McPhedran, *Canadian Medical Schools*, 226–35.
 - 9 David Steinman, “Bridging the Gaps Between Departments of Community and Family Medicine: The Calgary Experience,” *Journal of Community Health* 1, no. 3 (1976): 205–15.
 - 10 “1,280 U of C Students to Graduate Friday,” *Calgary Herald*, 30 May 1973, 13.
 - 11 “First U of C MDs Graduate,” *University of Calgary Gazette* 3, no. 2 (17 May 1973): 1, 3.
 - 12 “At the University Health Sciences Centre, ‘Our Aim Is to Make Medical Education More Realistic,’” *Herald Magazine*, 1 June 1973, 9; “University Health Sciences Centre Official Opening,” *University of Calgary Gazette* 3, no. 2 (17 May 1973): 1, 2; “Official Opening of University of Calgary (Notice),” *CMAJ* 107 (1972): 1258, and 108 (1973): 250; “Carrothers Wants ‘Healthier Relationship,’” *Calgary Herald*, 29 May 1973, 29.
 - 13 “Medicine Too Impersonal, Health Care Meeting Told,” *Calgary Herald*, 31 May 1973, 28; “Salaries Proposed for MDs,” *Calgary Herald*, 31 May 1973, 62; Karl Lederis and Keith Edward Cooper, eds., *Recent Studies of Hypothalamic Function—International Symposium, Calgary, Alberta, May 1973: Proceedings* (Basel, CH: Karger, 1974).
 - 14 *Tally Stick—University of Calgary 1973 Yearbook* (Calgary: Students’ Union of the University of Calgary, 1973), 154.

NOTES TO SIDEBAR 6

- 1 Arty Coppes-Zantinga and Ian Mitchell, *The Child in the Centre: 75 Years at the Alberta Children’s Hospital* (Calgary: University of Calgary Press, 1997); André Picard, “Alberta’s New Lego Hospital Definitely Not Just for Kids,” *Globe and Mail*, 27 July 2006, A13. We wish to thank Dr. Ian Mitchell for further information and suggestions related to Sidebar 6.
- 2 Peter P Morgan and Lynne Cohen, “Are Children’s Hospitals an Idea Whose Time Has Come and Gone?” *CMAJ* 148, no. 10 (1993): 1774–8; Antonio S. Stang and Arvind Joshi, “The Evolution of Freestanding Children’s Hospitals in Canada,” *Paediatric Child Health* 11, no. 8 (2006): 501–6.
- 3 Gerald M. McDougall, Mary R. Nemeth, and Jocelyn M. Lockyer, *Teachers of Medicine: The Development of Graduate Clinical Medical Education in Calgary* (Calgary: University of Calgary Press, 1987); RCPSC

- Report on One-Site Survey of Specialty Training Programs, University of Calgary and Affiliated Teaching Hospitals* (Ottawa: RCPSC, 1975 and 1980).
- 4 Robert H. A. Haslam, "Children's Hospitals: Still Relevant," *CMAJ* 149, no. 6 (1993): 787–8.
 - 5 Katie Khodawandi, "Alberta Children's Hospital," *Charity Intelligence Canada*, <https://www.charityintelligence.ca/charity-details/5-alberta-children-s-hospital-foundation/> (accessed 20 April 2019).
 - 6 More information about the ACHRI is available at <https://research4kids.ucalgary.ca/about>.

NOTES TO CHAPTER 2: THE DEAN MCLEOD YEARS

- 1 Barbara Dacks, "Profile of Dr. L. E. McLeod," *Bulletin of the Faculty of Medicine*, University of Alberta (Fall 1988): 18.
- 2 Lawrence A. Fisher, John Dawson, and Stanley Rowlands, *A Plan for the Reorganization of the Administrating Structure of the Faculty of Medicine*. University of Calgary, 1 June 1972, 19–21 (released 7 July 1972), UARC 2000.042 file 16.19. The next major organizational review was not completed until 1980.
- 3 Raymond Hulyk, personal communication with Robert Lampard, 5 December 2014.
- 4 Arthur A. Scott, "Eulogy to Dr. Lionel McLeod—a tribute, given at his funeral," 16 April 1993, McLeod Family Archives.
- 5 Peter Price, personal communication with Robert Lampard, 10 September 2013.
- 6 William A. Cochrane, "Eulogy to Lionel Everett McLeod 1927–1993," given at his funeral in Vancouver, 16 April 1993. Reprinted in the *Annals of the RCPSC* 26 (3 June 1993): 182.
- 7 Laura J. McLeod, personal communication with Robert Lampard, 30 April 2018. Laura McLeod is Dr. McLeod's daughter.
- 8 Elizabeth Flagler, "In Memoriam," *Annals of the RCRSC*, 26 (3 June 1993): 182.
- 9 Peter Price, personal communication with Robert Lampard, 10 September 2013.
- 10 Laura J. McLeod, interview with Robert Lampard, 22 January 2018.
- 11 Lionel E. McLeod, Letter to Dr. W. A. Cochrane, March 1968, McLeod Family Archives.
- 12 Robert Lampard, "Dr. Donald R. Wilson," in *Alberta's Medical History: Young and Lusty and Full of Life* (Altona, MB: Friesens Corporation, 2008), 388–400.
- 13 Donald R. Wilson, Letter of Reference to Dr. W. A. Cochrane re: Drs. Alan Gilbert and Lionel McLeod, March 1968, Copy in the McLeod Family Archives.
- 14 Jack Peach, *A Shelter from the Winds of Illness* (Calgary: Foothills Hospital, 1990), 13.
- 15 Deane Irwin, "Full Dialysis Program Will Be Costly," *Medical Post*, 9 September 1969. For the development of the program, see Walter Nagle, "Teamwork Gives Man New Life, and More Donors Sought," *Calgary Herald*, 28 February 1970, and "Kidney Failure May Mean Life Depends On A Machine," *Calgary Herald*, 23 January 1971; see also Peach, "Renal Program Launched," in *A Shelter from the Winds of Illness*, 33, 56–7.
- 16 *Ibid.*, 13, 56.
- 17 Lionel E. McLeod, "Top Appointments Made at U of C," *Calgary Herald*, 20 June 1973.
- 18 "Howard McEwen, "Medical Education Post Filled," *Calgary Herald*, 9 January 1970. A Surgical CTU or teaching unit was established in January 1972, with Dr. Grant Stewart as the director. UARC 2000.075 file 46.04.
- 19 LCME and RCPSC, Reports of the Survey of the University of Calgary, Faculty of Medicine, by the LCME 2–5 April 1973, and Report of the Decisions of the Committee on Evaluation in a letter from V. H. Skinner to Dr. W. A. Cochrane, 15 June 1973. Copies are held in the Dean's Office.

- 20 LCME Report, 27.
- 21 V. H. Skinner, Progress Reports on the University of Calgary Sponsored Specialty Training Programs, 15 June 1973. Copy in the Dean's Office.
- 22 Moramu Watanabe, interview with Robert Lampard, 16 April 2015.
- 23 Ibid.
- 24 Henry Mandin, interview with Robert Lampard, 10 March 2015.
- 25 Moramu Watanabe, interview with Robert Lampard, 16 April 2015.
- 26 Lionel E. McLeod, "The Impact of the Alberta Heritage Foundation for Medical Research on Medical Education," in the *Proceedings of the 10th Anniversary Conference of the U of C*, ed. John Baumber and Mark Bisby (University of Calgary, 22 March 1982), 18.
- 27 Lionel E. McLeod, EFC meeting, 23 October 1974.
- 28 David Steinman, "Some Thoughts re: Ambulatory Services Development," 24 April 1974, UARC 2000.075 file 46.06, and "Is Our Ambulatory Care Centre Concept Viable," 30 October 1975, UARC 99.053 file 2.04.
- 29 Lionel E. McLeod, Letter to Division Heads, 30 May 1974, UARC 95.053 file 17.01. The topic was still under active discussion two years later. See the letter from Dr. M. Wasylchuk to Dr. John O'Neill (Advanced Education), 18 September 1975, UARC 99.053 file 17.16.
- 30 Geertje Boschma, *Faculty of Nursing on the Move: Nursing at the University of Calgary 1969-2004* (Calgary: University of Calgary Press, 2005), 32-8.
- 31 Lionel E. McLeod, EFC meeting, 17 October 1973. Also see the CPSA minute no. 13 (1972), and minute no. 50 (1973).
- 32 Keith MacCannell, "Medical Trust Fund Procedures," 6 March 1973, and "1973 Speakers List," UARC 2000.075 file 34.01. Also see the 1972 annual report from the Research Committee, UARC 2000.075 file 29.01.
- 33 Keith MacCannell, Letters to Members of the Committee on Research, 10 June 1974, UARC 2000.075 file 30.01.
- 34 Robert B. Church, Letters to the Research Committee, 3 August, 16 January, and 18 February 1974, UARC 2000.075 files 30.01, 30.05, and 34.05.
- 35 Keith MacCannell, Letter to Doctor Ronald Hancock, 6 February 1973, UARC 2000.075 file 34.01.
- 36 Keith MacCannell, Letter to Members of the Committee on Research, 10 June 1974, UARC 2000.075 file 30.01. The interdisciplinary areas were the growth and development, neuroscience/endocrinology, absorption, secretion, and excretion, and CVS-R systems. Also see the associate dean (research) annual report for 1974-5, UARC 2004.041 file 15.13 and 87.45 file 15.9.
- 37 Malcolm Brown, Medical Research Council meeting in Calgary, 18-19 June 1975.
- 38 Lionel E. McLeod, Letter to Hon. Peter Lougheed, 14 July 1975; copy in the McLeod Family Archives.
- 39 Ibid.
- 40 John Butt, "Kirby Panel Urges Sweeping Changes in Court System," *Calgary Albertan*, 12 August 1975.
- 41 Lionel E. McLeod, Executive Faculty minutes, 3 December 1975 and 14 January 1976, and FC minutes 11 May 1977. For the full Sugars report, see UARC 99.053 file 7.01.
- 42 Lionel McLeod, FC minutes, 11 May 1977, and Division Heads minutes, 10 March 1978, UARC 99.053 file 1.14.
- 43 Keith MacCannell, Letter to W. A. Cochrane, 18 April 1973, UARC 99.053 file 1.18, and Letter from I. W. Duncan to Dr. L. E. McLeod, 23 September 1977, UARC 99.053 file 17.05.
- 44 LCME, Report of the Accreditation Survey of the University of Calgary Faculty of Medicine and RCPSC, Report of On-Site Survey of Specialty Training Programs, University of Calgary and Affiliated

- Teaching Hospitals, Calgary, Alberta, 14–17 April 1975. Copies held in the Dean's Office.
- 45 RCPSC report, 26–9.
- 46 Ibid., 12.
- 47 Ibid., 18.
- 48 Ibid., 5.
- 49 Ibid., 10–12.
- 50 Ibid., 6, 18. The revised agreement was completed in December 1978.
- 51 Ibid., 18–20.
- 52 Neil Crawford and Mervyn Graves, Press Release, 20 March 1974. For details, see UARC 99.053 file 16.09. Also see the EFC meeting minutes on 3 January 1973. The DAT was the location for thirteen clinics by 1975 and thirty-one by 1983.
- 53 Robert G. Black, Foothills Hospital Board meeting, 21 January 1974. Dr. Holman and Dr. McLeod were both five-year Markle scholars, appointed in 1958. Filed in the AHS Archives and Collections, Calgary, Alberta.
- 54 Robert G. Black, Foothills Hospital Board meetings, 2 and 21 October 1974.
- 55 Robert G. Black, Foothills Hospital Board meetings, 6 January and 10 February 1975.
- 56 Robert G. Black, Foothills Hospital Board meeting, 10 February 1975.
- 57 Ibid. See also Lionel McLeod, Letter to Robert L. Innes, 23 April 1975, UARC 2000.075 file 41.03.
- 58 Gordon T. Miniely, Government of Alberta/ACH press release, 20 June 1975. The government announced that acute pediatric care would be included in the planned Children's Health Centre under the ACH Board on the 17th Avenue site.
- 59 Robert H. A. Haslam and Ian Mitchell, personal communication with Robert Lampard 12 September 2017 and 28 January 2019.
- 60 Lionel E. McLeod and Walter C. Mackenzie, *AHFMR Newsletter* (November–December 1989), 11–12, as quoted in Lampard, *Alberta's Medical History*, 438.
- 61 Peter E. Lougheed, interview with Lois Hammond, 13 September 1999, AHFMR Archives, as quoted in Lampard, *Alberta's Medical History*, 667.
- 62 Robert Lampard, "The Alberta Heritage Foundation for Medical Research: It's Formative Years," in *Alberta's Medical History*, 666–7.
- 63 Peter E. Lougheed, interview with Lois Hammond, 13 September 1999.
- 64 *Tri-Party Statement on Medical Research: The Immediate Need for Increased Funding. A Statement, by the Canadian Society for Clinical Investigation, the Federation of Biological Societies and the Association of Canadian Medical Colleges. Summary Part I Financial Requirements* (August 1974), 3–5. Copy in the AHFMR Archives.
- 65 John E. Bradley, "The Alberta Heritage Foundation for Medical Research," in *Medicine in Alberta: Historical Reflections*, ed. Donald R. Wilson and William B. Parsons (Edmonton: AMF, 1993), 214–18; see also Lampard, "The Alberta Heritage Foundation for Medical Research: It's Formative Years," 666–71.
- 66 Moramu Watanabe, interview with Robert Lampard, 16 April 2015.
- 67 John E. Bradley, Minutes of a Meeting with the U of C Faculty of Medicine and Lionel McLeod, 14 November 1977, and Answers to Questions Raised in a Meeting with the Faculty of Medicine by Dr. John E. Bradley, 20 December 1977, UARC 2000.075 file 31.04. Deposited in the AHFMR Archives under Special Advisor, Volume 1, Consultations Program.
- 68 Lionel E. McLeod, Letter to Dr John E. Bradley, 17 May 1977. UARC 84.45 file 15.4. For later iterations of Dr. McLeod's position, see his Five-Year Development Plan, dated 19 December 1979, UARC 85.045 file 15.05, and his 1980 Development Plan, UARC 2000.075 file 32.02.
- 69 Ibid.

- 70 Lampard, "The Alberta Heritage Foundation for Medical Research: It's Formative Years," 666-70.
- 71 Ibid., 669.
- 72 Robert B. Church, *Guidelines for Evaluation of Research Endeavors*, UARC 2000.075 file 32.05.
- 73 I. W. Duncan, Letter to Dr. L. E. McLeod, 23 September 1977, UARC 99.053 file 17.05.
- 74 William A. Cochrane, "Affiliation Agreement Signed," *University Gazette*, 11 November 1976, UARC 2000.041 file 6.02.
- 75 Lionel E. McLeod, "Medical Appointment Provides Link with Services for Aged," *University Gazette*, 10 November 1977.
- 76 Clarence Guenter, George McQuitty, and Gilbert Rosenberg, Letter to Dr. L. E. McLeod, 2 January 1978, with geriatric proposal attached, UARC 85.45 file 15.4.
- 77 E. John K. Penikett, EFC meeting, 21 March 1979.
- 78 Gilbert Rosenberg, "Frustrated, Disillusioned Specialists Leave Calgary," *Calgary Herald*, 24 February 1986.
- 79 Gordon T. Miniely, Letter to Messrs. R. Black, T. Baker, 24 October 1977, Appendix A, Board Executive meeting, 27 October 1977.
- 80 John A. Cunningham, *Annual Report of the Director of Stoney Health Center, 1977*, UARC 2000.042 file 11.04. For corroboration, see Dr. Tom Saunders summary in McDougall, *Teachers of Medicine*, 165, and Dr. David Steinman's comments in the EFC meetings of 2 and 16 November 1977.
- 81 Lionel E. McLeod, Letter to Dr. Donald Rice, 1 May 1978, UARC 99.053 file 15.08.
- 82 Lionel E. McLeod, Five-Year Development Plan, November 1977, UARC 97.053 file 1.13.
- 83 Ibid.
- 84 Lionel E. McLeod, Letter to Dr. J. E. Bradley, 17 May 1977, UARC 85.45 file 15.4. For the sixty-four new faculty he wanted, see the Revised 4-Year Proposal, 29 September 1977, UARC 99.053 file 1.15.
- 85 Clarence Guenter, Letter to L. E. McLeod, 25 November 1977, UARC 2000.042 file 20.06.
- 86 LCME, *1980 Survey Questionnaire*, Appendix 35A. Copy in the Dean's Office.
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NOTES TO CHAPTER 5: THE DEAN GALL YEARS

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CHAPTER 7: FINAL THOUGHTS

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Glossary of Abbreviations

ACC	Ambulatory Care Centre	ASPECTS	Alberta Stroke Program Early CT Score
ACH	Alberta Children's Hospital	AUPE	Alberta Union of Provincial Employees
ACHRI	Alberta Children's Hospital Research Institute	BHSc	Bachelor of Health Sciences
ACHS	Alberta Children's Hospital Society	BOG	Board of Governors (U of C)
AHFMR	Alberta Heritage Foundation for Medical Research	BSE	Bovine spongiform encephalopathy
AHS	Alberta Health Services	CACMS	Committee on Accreditation of Canadian Medical Schools
AHSC	Alberta Hospital Service Commission	CBH	Colonel Belcher Hospital
AHSTF	Alberta Heritage Savings Trust Fund	CCFP	Canadian College of Family Practice
AIGE	Interamerican Association of Gastroenterology	CCHA	Canadian Council on Hospital Accreditation
AI-HS	Alberta Innovates-Health Solutions	CDA	Canadian Dental Association
AIMG	Alberta International Medical Graduate	CDHG	Calgary District Hospital Group
AMA	American Medical Association	CF	Cystic fibrosis
AMF	Alberta Medical Foundation	CFPC	College of Family Physicians of Canada
APPROACH	Alberta Provincial Project for Outcomes Assessments in Coronary Heart Disease	CGH	Calgary General Hospital
		CHC	Child Health Centre
		CHOMS	Calgary History of Medicine Society

CHR	Calgary Health Region	DEPA	Division of Educational Planning and Assessment
CHS	Community Health Sciences	DNA	Desoxyribonucleic acid
CIDA	Canadian International Development Agency	ECG	Electrocardiogram
CIHR	Canadian Institutes of Health Research	EEG	Electroencephalogram
CIPS	Canadian Intern Placement Service	EFC	Executive Faculty Council
CMA	Canadian Medical Association	ER	Emergency Room
CME	Continuing Medical Education	ESCAPE	Endovascular Treatment for Small Core and Anterior Circulation Proximal Occlusion with Emphasis on Minimizing CT to Recanalization Times
CMS	Calgary Medical Society	FACP/S	Fellow, American College of Physicians/Surgeons
CNIB	Canadian National Institute for the Blind	FACS	Fellow, American College of Surgeons
CP	Clinical presentation	FC	Faculty Council
CPG	Clinicopathologic Conference	FH	Foothills Hospital
CPR	cardiopulmonary resuscitation	FMC	Foothills Medical Centre
CPSA	College of Physicians and Surgeons of Alberta	FP	Family Practice
CRHA	Calgary Regional Health Authority	FRCP/S	Fellow, Royal College of Physicians/Surgeons
CSM	Cumming School of Medicine	FRCS	Fellow, Royal College of Surgeons
CSP	Calgary Stroke Program	FTE	Fulltime Equivalent
CTU	Clinical Teaching Unit	GCEC	Graduate Clinical Education Committee
CVS	Cardiovascular System	GFC	General Faculty Council
CVS-R	Cardiovascular-Respiratory System	GFT	Geographic full time
DAT	Diagnostic and Treatment Centre	GI	Gastrointestinal
		HBC	Hudson's Bay Company

HBI	Hotchkiss Brain Institute	MAC	Medical Advisory Committee
HCH	Holy Cross Hospital		
HIPEC	Heated intraperitoneal chemotherapy	MaPS	management and professional staff
HMRB	Heritage Medical Research Building	MCAT	Medical College Admission Test
HOM	History of Medicine	MCC	Medical Council of Canada
HRC	Health Resource Centre	MDL	Multidisciplinary Teaching Laboratories
HRF	Health Resources Fund	MMC	Manitoba Medical College
HRIC	Health Research Innovation Centre	MOC	Mandatory Maintenance of Certification
HSC	Health Sciences Centre		
ICN	Intensive Care Newborns	MOCOMP	Maintenance of Competence Project
IHP	International Health Program	MPL	Minimum pass level
IMC	International Medical College	MRC	Medical Research Council
IMG	International Medical Graduate	MRCP	Member of the Royal College of Physicians
ITOR	Interventional Trauma Operating Room	MSK	Musculoskeletal
IWK	Izaak Walton Killam Children's Hospital	NASA	National Aeronautics and Space Administration
JAR	Junior Assistant Residency	NINDS	National Institute of Neurological Disorders and Stroke
JCI	Journal of Clinical Investigation	NWMP	North-West Mounted Police
JLC	Joint Liaison Committee	NWT	North-West Territories
LCME	Liaison Committee on Medical Education	OB/GYN	Obstetrics and Gynecology
LDC	Liaison Development Committee	PAR	Physician Achievement Review
LMCC	Licentiate of the Medical Council of Canada	PGME	Postgraduate medical education
		PLC	Peter Lougheed Centre
		PLP	Physician Learning Plan

RAPTOR	Resuscitation with Angiography, Percutaneous Techniques, and Operative Repair	U of A U of C U of L U of T	University of Alberta University of Calgary University of Lethbridge University of Toronto
RCPSC	Royal College of Physicians and Surgeons of Canada	VP	Vice President
RGH	Rockyview General Hospital	W21C WCMF	Ward of the 21st Century Western Canada Medical Federation
RN	Registered Nurse		
RHPAP	Rural Health Professions Action Plan	WCMFJ	Western Canada Medical Journal
RPAP	Rural Physician Action Plan	WW1	World War I
SAC	Scientific Advisory Committee		
SAR	Senior Assistant Resident		
STARS	Shock Trauma Air Rescue Society		
TBCC	Tom Baker Cancer Centre		
TAG	Teen Advisory Group		
TRW	Teaching, Research, and Wellness Building		
UAH	University of Alberta Hospital		
UBC	University of British Columbia		
UCMC	University of Calgary Medical Centre		
UCVM	University of Calgary, Faculty of Veterinary Medicine		
UEA	University of East Anglia		
UME	Undergraduate medical education		

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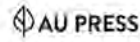
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