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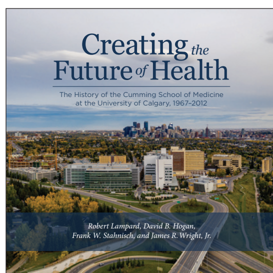

CREATING THE FUTURE OF HEALTH: The History of the Cumming School of Medicine at the University of Calgary, 1967–2012

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Introduction

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 infective 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 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 know 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]