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**LIONEL EVERETT McLEOD, MD, FRCPC, FACP, FRCP (Edin)
1927-1993**

LIONEL EVERETT McLEOD, MD, FRCPC, FACP, FRCP (Edin) 1927-1993

"His greatest achievement and source of satisfaction was, helping young people get started toward a career in service and in the practice of medicine. He gave them a role model, encouragement and, Most importantly, faith in themselves... Truly a great man with tremendous ability And energy has walked among us."⁽¹⁾

Introduction

Lionel Everett McLeod was born and raised in Alberta. Except for his years of post-graduate medical studies in Minnesota and McGill, he lived all but his last three years in his home province.

Lionel McLeod graduated from high school during one of the most difficult years to become a physician. The pre-medical class of 1946 had to compete with returning war veterans who had postponed their academic studies.

Earning his M.D. in 1951, Dr. McLeod began his postgraduate medical studies in the field of body metabolism. He came to the attention of Dr. D.R. Wilson, the Professor of Medicine, who convinced Dr. McLeod to return to the UofA and expand the endocrine and metabolism lab. Dr. McLeod's arrival in 1958 coincided with the first acute dialysis trials at the UofA. Receiving the third consecutive UofA Markle Scholarship, he developed the laboratory to support the first Kiil chronic dialysis trials outside the United States, in 1962.

Dr. McLeod began the chronic dialysis programs in both Edmonton (1962) and Calgary (1970). His steady at the helm approach, did much to help the Calgary program, through a nearly complete turnover of the dialysis and transplant teams (1971). His Department of Medicine was the key department responsible for implementing the second body systems based medical undergraduate curriculum in Canada.⁽²⁾ The concept, now widely followed, integrated the teaching of basic science and clinical medicine, one body system at a time.

After the first UofC medical undergraduate class graduated in 1973, Dr. Cochrane retired as Dean and

Dr. McLeod succeeded him. One of Dean McLeod's first tasks was to reorganize the post-graduate medical education program to meet Royal College standards. With undergraduate and postgraduate medical education programs in place and departmental subspecialization underway, Dr. McLeod turned his attention to medical research. In 1975 Deans L.E. McLeod (UofC) and D.R. Cameron (UofA) made the first request to Premier Peter Lougheed for provincial funding for medical research in Alberta. Interested, the Alberta government responded with an international search for the best model to use. That led to the formation of the Alberta Heritage Foundation for Medical Research (AHFMR) in 1980, with its unique International Board of Review.⁽³⁾



Announcing the AHFMR, 1979

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1. Scott, Arthur A. "Dr. Lionel McLeod – a Tribute – Eulogy," April 16, 1993, 4 pages. McLeod Family Archives.
2. Cochrane, William A. "Philosophy and Program for Medical Education at the University of Calgary Faculty of Medicine," CMAJ 98: 500-505, March 9, 1968. See the profile of Dr. W.A. Cochrane. The first one was at McMaster in Hamilton.
3. Lampard, Robert "The Alberta Heritage Foundation for Medical Research, Its Formative Years, 1975-2005," in Part 2.

In 1981, Dr. McLeod re-entered the field of medical research as the first President of the Alberta Heritage Foundation for Medical Research (AHFMR). By the end of the decade Dr. McLeod had overseen AHFMR grant increases from \$5 million to \$30 million per year. Not ready to retire, Dr. McLeod accepted the Vice-President Medical position of the UBC Health Science Center (HSC) and moved to Vancouver in 1990. One year later he became the President of the HSC, a position he held for his last two years, before he passed away in 1993.

From Youth to MD 1927-1951

Lionel Everett McLeod was born in Wainwright, Alberta on August 9, 1927. His parents Frank and Nancy McLeod operated a furniture store, funeral home, and an ambulance service in Wainwright for forty-six years. Mr. McLeod was a trustee and chairman of the hospital board for over nineteen years, before retiring in 1963.⁽⁴⁾

Dr. McLeod liked to refer to himself as “just a kid from Wainwright”.⁽⁵⁾ During his Wainwright years, he came under the influence of future medical leaders Drs. J. Douglas Wallace and John E. Bradley, two tal-



The McLeod family: Nancie, Lionel, Annie Withnell (grandmother), Lorne, Frank, Thomas Withnell (grandfather), circa 1935 34-3

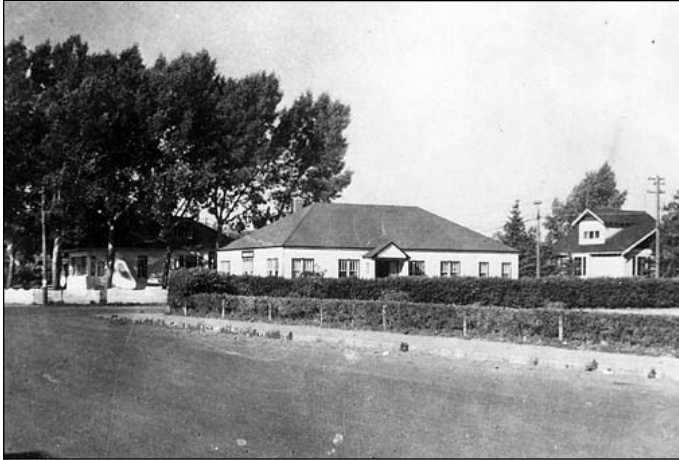
ented Wainwright general practitioners. Dr. McLeod would cross their paths many times after they left practice for medical administrative careers in 1960. Dr. Bradley became the first physician from Alberta to be inducted into the Canadian Medical Hall of Fame in 2002, and with the Honorable Peter Lougheed, the first Albertans. They developed the framework for the government endowed AHFMR. Dr. Wallace became the Executive Director of the UAH (1960-1965) and Toronto General Hospitals (1965-1970), ending his career as the General Secretary of the CMA (1970-1976).⁽⁶⁾ The three would become affectionately known as “the Wainwright Mafia”.⁽⁷⁾

At age nineteen, Lionel McLeod was accepted into the five-year medical undergraduate program at the UofA (1946). Competition for positions was keen. The intake quota was raised to sixty from fifty-four that year. Priority was given to the flood of applications from returning veterans.⁽⁸⁾ The large application rate raised the minimum entry requirements. Only Lionel and five other non-veterans, including Drs. Gordon Bain and Helen Huston were accepted. Many graduates from the talented postwar classes returned to the Faculty of Medicine and entered the rapidly expanding fields of sub-specialty medicine.⁽⁹⁾ The list included Drs. R.A. Macbeth, R.C. Harrison, K.A. Swallow, M.M. Hutton, B. Sproule, R.S. Fraser, and R.W. Sherbaniuk, and more.

Dr. McLeod's scholastic ability was confirmed early in his undergraduate years. The Friends of the University of Alberta gave him a bursary to start his studies in 1946. Two years later in 1948, he won the Allan Coats Rankin Prize in Bacteriology (1948). In 1950 he was the recipient of the College of Physicians & Surgeons Scholarship in Pathology & Bacteriology. He earned a first-class standing in each of his last four undergraduate years (1947-1951).⁽¹⁰⁾

During his rotating internship at the UAH (1951-52), Dr. McLeod married Barbara Lipsey. As soon as his internship was over he entered general practice in

4. (McLeod, Frank) *People Helping People. A History of Health Care and Social Services in the Wainwright District*, 1981, pages 70-71, 80, 120-122, 1981.
5. Flagler, Elizabeth Obituary, submitted to Dr. John Last, editor of the *Annals of the Royal College of Physicians and Surgeons*. Two pages. Written shortly after April 16, 1993. McLeod Family Archives.
6. Lampard, Robert “The Alberta Heritage Foundation for Medical Research; The Formative Years, 1975-2005” in Part 2.
7. McLeod, Barbara Personal communication, June 4, 2001. The third physician whose example influenced Dr. McLeod to enter medicine was Dr. David Hasinoff of nearby Mannville. He was Canada's last municipal doctor. Personal communication, Dr. Dan Hasinoff, September 24, 2005. Confirmed in conversation with Dr. J.P. Fernando of Mannville, March 17, 2007.
8. Scott, John W. *The History of the Faculty of Medicine of the University of Alberta, 1913-1963*, page 25. University of Alberta, 1963.
9. Scott, John W. *The History of the Faculty of Medicine*, page 24.
10. (McLeod, Lionel E.) Edmonton Journal (n.d. circa 1955). Clipping in the McLeod Family Archives.



Wainwright Clinic, circa 1950

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Wainwright. There he joined veteran general practitioner Dr. Harry Wallace who had delivered him and Drs. Doug Wallace and John E. Bradley. Dr. McLeod's six month career in general practice came to an abrupt end when he received his next scholarship.

The Post-Graduate Years 1952-1958

In 1952 Dr. McLeod was awarded one of twenty-seven MRC \$3,000 Research Scholarships. He applied to study Endocrinology at the University of Minnesota from 1953-1955. After two years in Endocrinology and Respiratory Medicine, he transferred to McGill on an NRC Scholarship. There he worked as a Clinical Fellow in the Department of Investigative Medicine at the Royal Victoria Hospital from 1955-1957. On the wards, he consulted on patients that were part of his Masters research on body metabolism.⁽¹¹⁾

Shortly before graduating, Dr. McLeod received a skin scratch from a laboratory rat. Although he had a history of asthma as a youth, the anaphylactic reaction was not expected. He was found cyanosed on the floor and was fortunate to survive. He did so, in time to be awarded an R.S. McLaughlin Traveling Fellowship (1957). It allowed Dr. McLeod to spend two months visiting medical schools in the USA. The incident discouraged further thoughts of a career in medical research. In October 1957 he was awarded an MSc in medicine for his thesis, "The Measurement

of Body Fluid Compartments". His research was published ten years before Dr. Francis Moore's monumental textbook on the same subject. In 1956, Dr. McLeod received his FRCPC from the Royal College. It was presented to him by its President Dr. John W. Scott, the UofA Dean of Medicine. Ten years later (1968) he would receive an FACP.⁽¹²⁾

The UofA Years, 1958-1968

On the invitation of Dr. D.R. Wilson, Dr. McLeod returned to the UofA Faculty of Medicine in 1958. His first appointment was as a Lecturer in the Departments of Biochemistry and Medicine. In 1959 he was appointed an Assistant Professor in the Department of Medicine, promoted to an Associate Professor in 1963 and became the Director of the new Division of Nephrology from 1962-1968.

After his return in 1958 he assumed responsibility for the endocrinology lab, from his Department Head Dr. D.R. Wilson, who had started it a decade before. Dr. McLeod applied for a Markle Scholarship and was successful (1958-1963).⁽¹³⁾ The scholarship came with a stipend of \$6,000 per year. It was based on his proposal to add electrolyte testing to the battery of steroid tests already being performed. Dr. McLeod became the third Markle Scholar at the UofA, following Dr. D.R. Wilson (1948-1953), and Dr. R.S. Fraser (1953-1958), who developed the UAH cardiology catheterization laboratory. Dr. McLeod's patients included Dr. H.C. Jamieson, the self-taught endocrinologist who opened the first ambulatory clinic for diabetics in the 1920s at the UofA.⁽¹⁴⁾

Although the Markle Scholarship may have influenced the direction of his career, Dr McLeod says he drew up no master plan. He thinks a statement by James Joyce reflects his own philosophy of life. "It goes something like this," he says: "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."

B. Dacks

Bulletin of the Faculty of Medicine, UofA, 1988

11. McLeod, Lionel E. Curriculum Vitae dated December 1992. Six pages. Copy in the McLeod Family Archives.
12. McLeod, Lionel E. Curriculum Vitae, pages 1-2.
13. Vant, J. Ross, Cashman, Tony *More Than a Hospital, The University of Alberta Hospitals*, page 212, University of Alberta, 1986. For a review of the Markle Scholars at the UofA, see E.A Corbet's *Frontiers of Medicine*, pages 75-76, 176-177, University of Alberta, 1990. There were few Markle Scholarships awarded in Canada that year (1958). Canadian Markle Scholars who worked with Dr. McLeod included Drs. D.R. Wilson, R.S. Fraser, Keith McCannell, John Evans, and Morley Hollenberg.
14. Jamieson, Heber C. "Survey of Recent Literature on Diabetic Treatment," *CMAJ* 22: 682-684, 1930. Dr. Jamieson's multifaceted career was outlined in his profile.



First use of the Kiil dialysis unit in Canada, *Edmonton Journal*, December 22, 1962

From 1957 to 1962, renal dialysis was limited to cases involving acute renal shutdown, where the patient “wanted to buy a few days’ time to write their will”, or had “suffered an acute overdose which had the possibility of recovering”.⁽¹⁵⁾ In 1962, Dr. McLeod convinced Seattle medical researcher Dr. Kiil to allow him to use a Kiil dialysis unit with the new Quentin-Scribner arterial-venous shunt. That trial started the first chronic or repeat renal dialysis program in the Commonwealth.⁽¹⁶⁾

His first dialysis patient was Diane Sutton, who was dialyzed on December 21, 1962.⁽¹⁷⁾ Another early patient was Robin Easy. Easy was a British medical student referred to Dr. McLeod by Dr. Kiil. During his UofA dialysis days, Easy was invited to the McLeod home for dinner. It necessitated a salt-free dinner,

carefully prepared by Barbara McLeod. Dr. McLeod arranged for Robin to attend medical lectures until the startup of a chronic dialysis program in England permitted him to complete his medical studies and become a noted dermatologist.⁽¹⁸⁾

Dr. McLeod’s enthusiasm, approachability, and knowledge as a teacher made him a model for legions of students.⁽¹⁹⁾ He was nominated as Honorary Class President of the Class of 1962. The Class President was Dr. Joseph Martin, later Dean of Medicine at the Harvard Medical School. Looking back at his own career Dr. McLeod said he drew great satisfaction from “helping young people get started toward a career in science and the practice of medicine ... [by giving them] ... encouragement and faith in themselves”.⁽²⁰⁾

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15. Vant, J. Ross, Cashman, Tony *More Than a Hospital*, pages 222, 281-285, 310.
16. McLeod, Lionel E. et al “Intermittent hemodialysis in terminal chronic renal failure,” *CMAJ* 94(9): 318-327, February 1966
17. (McLeod, Lionel E.) *Edmonton Journal*, December 22, 1962. The value of the new Quentin-Scribner shunt was confirmed by Dr. Morris Davidman, June 20, 2006.
18. McLeod, Laura Personal communication, June 4, 2001. Dr. Ross Vant described the international story of Dr. Robin Easy, and the roles of Drs. Kiil and McLeod in treating his renal failure, in *More Than a Hospital*, pages 284-285.
19. Lampard, Robert Dr. McLeod was one of the opening day teachers when the author started Med I in September 1960. One of his inspiring quotes was “there is nothing more humbling than to wake up the morning after a patient has died and realize there was something more you could have done.”
20. Scott, Arthur A. From Dr. Scott’s presentation, entitled “Dr. Lionel McLeod – a Tribute – Eulogy,” given at the funeral of Dr. McLeod. Copy deposited in the McLeod Family archives.

In 1965, Dr. McLeod suffered a near fatal illness. He developed serum Hepatitis, now known as Hepatitis B, at the same time as his Chief Resident Dr. Morris Davidman. Both suffered severe jaundice and liver damage which was apparent in their liver enzyme tests. They were fortunate to survive and rejoin the dialysis team.⁽²¹⁾ Their support became a necessity when Dr. William Lakey began the renal transplant program at UAH in 1967.⁽²²⁾

In 1966, Dr. McLeod became a full professor. Despite the promotion, two years later he was casting a wandering eye for a position that would increase his medical responsibilities. It became a predictable pattern.

The UofC/Foothills Hospital Professor and Head of Medicine 1968-1973

In 1968 Dr. McLeod applied for the Head of Medicine position at the UofT. On hearing of the opening for the new Professor and Head of Medicine at the Foothills Hospital and UofC Faculty of Medicine, Dr. McLeod submitted a second application to Calgary. Offered both posts, he contemplated his options at the top of a Rocky Mountain ski run, and chose the UofC over UofT. The faculty was youthful. The new systems approach to undergraduate teaching was already designed⁽²³⁾, and there was a willingness to alter services to meet changing needs. The medical community in Calgary had not been as fortunate as physicians in Edmonton. It had no Faculty of Medicine. Medical practices were organized along clinic lines, which were polarized to the Holy Cross or Calgary General Hospitals. Attitudes did not begin to change in Calgary until the Foothills Hospital opened in 1966; coupled with the commissioning of the UofC medical school (1966), a program originally planned for the 1980s. The starting

He (Dr. McLeod) was caught up in the excitement of starting from scratch: "We built the building, developed a curriculum, recruited faculty."

The Bulletin of the Faculty of Medicine, UofA, 1988

In Adshead and Cochrane you have two who are thinking of tomorrow, looking for ideas 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! So I tore up the letter to Toronto."

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Dr. McLeod in "A Shelter from the Winds of Illness," 1990 date was accelerated by the Hall Royal Commission recommendations (1961-1964).⁽²⁴⁾ The Medical School began with the appointment of Dean W.A. Cochrane in 1967.⁽²⁵⁾

By 1968, 385 of the Foothills 766 beds were opened. As the remaining beds came on stream, a ten-bed ambulatory daycare unit with ORs was built (1969), three floors were added to the west wing to house the medical undergraduate program (1969), an interns' residence was built (1969), the renal dialysis program was started (1970), and renal transplantations followed in 1971.⁽²⁶⁾

Dr. McLeod began his Calgary appointment on July 1, 1968, as the first jointly appointed (Hospital, University) Professor and Department Head. With Dean W.A. Cochrane and the rest of the new joint appointees, they led the faculty over the opening hurdles: appointing the new faculty, designing and building a new medical school, introducing a new curriculum and accelerating the development of subspecialty medical services.

The Foothills Hospital which was under a separate Board, had already embarked on a rapid development program. The Hospital received full CCHA accreditation (1967), and the next year accepted its first interns (1968). That same year the hospital received approval on a program extension basis to train residents in Radiology and Anesthesia (1968). The next year the hospital and faculty of medicine jointly received approval to train residents in Medicine, Surgery, Pathology, Radiology, and Anesthesia (1969), followed by Obstetrics, Pediatrics, and Psychiatry (1970). The first medical students

21. Davidman, Morris Personal Communication, June 23, 2006. Both Drs. McLeod and Davidman spent one month in hospital.
22. Dossetor, John R., "Forty Years of Nephrology and Renal Transplantation," in the *History of the Department of Medicine*, edited by Dr. Dawna M. Gilchrist, pages 139-144. University of Alberta, 2004.
23. Cochrane, William A. "Philosophy and Program for Medical Education at the University of Calgary Faculty of Medicine," *CMAJ* 98: 500-505, March 9, 1968. Clinical Teaching Units (CTUs) were also introduced as outlined in Dr. H.E. Nanson's "The Development of the Team Approach to Medical Care in Clinical Teaching Units in Relation to, the Quality of Medical Care; the Assurance of Developing Progressively Increasing Responsibility for Patient Care, Under Supervision; and Medicare." *CMAJ* 95: 762-765, October 8, 1966.
24. Hall, Emmett M. *The Hall Royal Commission on Health Services*, Volume 1, pages 69-73, 1964.
25. Lampard, Robert The profile of Dr. W.A. Cochrane.
26. Peach, Jack *A Shelter from the Winds of Illness*, pages 13, 26, 28, 56-58, Foothills Hospital, 1990.



Foothills Hospital, opened in 1966 34-6

started in 1970, became clinical clerks (1972), and graduated as MDs (1973).⁽²⁷⁾

During most of Dr. McLeod's Foothills Hospital years, he was the chairman of the Foothills Hospital's Medical Advisory Committee. In 1972, he was appointed the first Associate Dean for Professional Affairs, and was charged with strengthening faculty relationships with the affiliated hospitals. That appointment was short-lived, when he became the second Dean of the Faculty of Medicine at UofC in 1973.⁽²⁸⁾

Dean, Faculty of Medicine, UofC 1973-1981

Although no longer seeing patients, Dr. McLeod did not lose his clinical acumen. Like many endocrinologists, he was a perceptive diagnostician. He diagnosed the Foothills Hospital's lawyer as hypothyroid with the question, "when do you go to sleep at night?". He met the Childrens Hospital Head of Pediatric Cardiology in an elevator and concluded he was hyperthyroid after a sweaty handshake. He also discovered he had a thyroid nodule himself while

TEACHERS OF MEDICINE: THE DEVELOPMENT OF GRADUATE CLINICAL MEDICAL EDUCATION IN CALGARY

Gerald M. McDougall
Editor

G.M. McDougall, editor, UofC, 1987

looking in the mirror circa 1975. It required treatment for the rest of his life.

One of the early challenges Dr. McLeod undertook as the new dean, was to reorganize the post-graduate medical education program (1975). He began by appointing post-graduate program directors in each department. Formation of the postgraduate education committee coincided with the transfer of the responsibility for postgraduate medical education from the hospital to the respective Faculty of Medicine department head and program coordinator. Dr. McLeod also initiated the first joint Department Head/Professor evaluation system. He was particularly helpful in making representations to the government to increase the number of residency training positions at UofC. By the time Dr. McLeod retired as Dean, the number of post-graduate resident positions in Calgary had increased from 110 (1974) to 219 (1981), including interns, family practice and specialty resident positions.⁽²⁹⁾

Planting the AHFMR Seed

In the 1970s medical research was in its infancy at the UofC. Research grants to the UofC Faculty of Medicine were about \$800,000 per year in 1974. The comparable figure at the UofA was \$2.5 million. Aware that federal funding for the Medical Research Council was not keeping up with the high inflation rate in the mid 1970s, Dr. McLeod and other Canadian medical leaders and researchers began to raise their concerns as medical research grants were curtailed in 1973/74. In 1975, an informal question

"We knew that the government was sympathetic with the medical schools (circa 1975), but because of the global budgeting nature of the universities was unwilling to require the university provide funds for a given faculty. We began to think of ways around that. I don't remember if we talked about the idea of a foundation then, but we talked to public citizens in Edmonton and Calgary and one day we were invited to the Premier's office to see the Premier and three ministers ... Mr. Lougheed seemed quite interested and we struck upon the idea of research funding as a mechanism ... the Premier ... asked us to arrange for a committee to talk to him and hence the government about how this might best be done ..."

Dr. L.E. McLeod in the AHFMR Newsletter, 1989

27. McDougall, Gerald *Teachers of Medicine*, pages 93, 96, 98, 141, 142, University of Calgary, 1987. Most of the responsibility for selecting applicants, recruiting, contracting, evaluating and remunerating medical House Staff was performed by the Foothills Hospital House Staff Committee executive, Drs. F. Parney and R. Lampard, from 1968-1974. In 1974 Dr. McLeod formalized the role of the Faculty of Medicine's Post-Graduate Clinical Education Committee.

28. Lampard, Robert Profile of Dr. William A. Cochrane.

29. McDougall, Gerald *Teachers of Medicine*, pages 92-98, 111-112, 141-142, 144, 157-158.

"It is very important to remember that medical research has given us the ability to prevent poliomyelitis, to cure or prevent tuberculosis, and in so doing have helped us to close down whole networks of expensive institutions. Medical research has removed typhoid, malaria, diphtheria and whooping cough from the role of mass killers. If we can provide research workers with the potential for continuing their diligent struggle for decisive technology of modern medicine, they will eventually explain the causes of cancer, coronary disease, and kidney failure. Hopefully we can then prevent or cure them, and we can throw away the dialysis machines and close the vast cardiac, surgical departments."

From Dr. McLeod's presentation at the first Government House Dinner, 1978

was directed to the Lougheed government, to see whether or not the newly announced Alberta Heritage Trust Fund, would fund brain industries like medical research. If it would, it would be a way of funding the cash strapped medical faculties.⁽³⁰⁾ The indirect response was yes. With UofA Dean Dr. Tim Cameron and the AMA's Dr. Bryce Weir, Dr. McLeod met with Premier Peter Lougheed, eight days after the proclamation of the Alberta Heritage Trust Fund Act on May 27, 1976. Premier Lougheed indicated that the request would not be refused out of hand.⁽³¹⁾

By June 2, 1977 the concept had evolved from the possibility of a medical research fund to a foundation at arms' length from government. The Premier's interest in the concept was crystallized at two Government House dinners. Both Dean McLeod and then UofC President W.A. Cochrane participated in policy setting and funding meetings in March 1978 and March 1979.⁽³²⁾

In 1979 Premier Lougheed was honored with the Outstanding Alumnus Award from Harvard University. During his Boston visit Dr. McLeod organ-

ized a meeting with Dr. Joseph Martin, the Brooks, Alberta born Professor of Neurology.⁽³³⁾ Dr. Martin was impressed with Premier Lougheed's understanding of medical research and desire to "do it right".⁽³⁴⁾ He offered his assistance and was appointed a member of one of the first AHFMR Scientific Advisory Committees from 1982-1987.

An important legacy of Deans Cochrane and McLeod, was to bring three future Deans of Medicine to Calgary to join the faculty: Drs. M. Watanabe (1981-1992), Eldon Smith (1992-1997) and Grant Gall (1997-2006). The process of appointing Deans from within the faculty continued for over thirty years, as it did at the UofA for its first sixty-five years.

President of the AHFMR 1981-1990

The AHFMR was launched in February 1980. The first Executive Director (1980-1981) was Dr. McLeod's mentor from Wainwright, Dr. John E. Bradley, and Premier Lougheed's Scientific Advisor on Medical Research. The timing of the AHFMR's formation and funding was fortuitous. One year later would likely have been too late, as oil prices had peaked and were beginning to plummet. In response, the Alberta government discontinued the transfer of surplus oil revenues to the Heritage Fund and later reversed the process, by transferring interest generated by the fund to the Alberta government's general revenues.

The AHFMR Act was proclaimed on March 19, 1980 and the new Board was appointed one day later. Dr. Bradley remained the Executive Director for the first year, during which the first studentships and fellowships were approved. In the fall an international medical symposium was held in Edmonton, and the new Board began the search for a president. Dr. McLeod was the successful applicant and became the first President and CEO, from 1981-1990.⁽³⁵⁾

30. McLeod, Lionel E.

AHFMR Newsletter, pages 11-12, Nov-Dec 1989.

31. Lampard, J. Robert

"The Alberta Heritage Foundation for Medical Research: Its Formative Years, 1975-2005," in Part 2.

32. McLeod, Lionel E., Mackenzie, Walter

Two speeches survive from the first dinner meeting. They were written by Drs. W.C. Mackenzie and L.E. McLeod. Both supported the autonomous Corporate Board, Scientific Advisory Committee and Peer Review committee framework. The speech notes were deposited in the Mackenzie Family Archives and were dated March 16, 1978 (Mackenzie), and March 28, 1978 (McLeod). The Saint John's Calgary Report, 3(1): 6-8, March 23, 1979, carried a status report of the deliberations to March 23, 1979. Further details on the role of the two dinners in the evolution of the AHFMR concept were covered in "The Alberta Heritage Foundation for Medical Research: Its Formative Years, 1975-2005," in Part 2.

33. Martin, Joseph B.

Personal communication, October 1, 2002. Dr. Martin commented that "whatever Dr. McLeod asked, I did" – a continuation of the respect he held for Dr. McLeod since his UofA graduation in 1962.

34. Martin, Joseph B.

Letter to Dr. L.E. McLeod dated October 25, 1979. Deposited in the Dr. L.E. McLeod Fonds, University of Calgary Archives, #UARC 99.053, (Faculty of Medicine) Temporary Box No. 9, File No. 9.05.34. Martin, Joseph B.

35. Lampard, Robert

"The Alberta Heritage Foundation for Medical Research: Its Formative Years, 1975-2005." Other applicants were Drs. R.A. Macbeth and J.E. Bradley. Personal communication with Eric Geddes, January 3, 2001.

The start-up was remarkably smooth. The new Board already had the interim Scientific Advisory Committee in place (1980). The peer review sub-committees were slowly being positioned. Expenditures in the first year totaled less than \$5 million. Still, that more than doubled the total medical research grants received by the Faculties of Medicine at the Universities of Calgary and Edmonton.⁽³⁶⁾

There was a steep learning curve for the new Board. It was coupled with a sense of urgency. The process had already taken five years to develop the framework for the AHFMR with its unique International Board of Review. Dr. McLeod's vision was clear. "We've got to get them [the bright students] back because without young people, new ideas and methods of treatment, simply won't develop".⁽³⁷⁾

In the early 1980s, interest rates were well in excess of ten percent. The high rates allowed the endowment fund to grow and still increase the AHFMR's annual research grants. The shortage of research

"Although public funds were involved, the Act established the Foundation at arms-length but with procedures ensuring accountability. The importance of this arms-length relationship was broadly recognized by both the university community and the government and enacted in a manner I believe to be quite unique."

Dr. McLeod at the Conference on Health Research, 1986

"On a per capita basis nothing like this has happened in the history of science before anywhere – not only in Canada or North America but anywhere. No population of scientists has ever been given the kind of opportunity that we have in Alberta. With that opportunity comes an incredible responsibility!"

*Dr. George Drummond
Member, Scientific Advisory Council*

AHFMR Triennial Report, 1980-1983

space became a crisis by 1984. That year the AHFMR committed \$55 million towards the construction of two medical research centers in Calgary and Edmonton which were built from 1986-1988.⁽³⁸⁾

In 1985 a program to support clinical investigators was established. It was the first of its kind in Canada. A technical commercialization program to accelerate the development of worthwhile projects with clinical potential was initiated in 1987.⁽³⁹⁾ The first International Board of Review was constituted in 1986 and reviewed the AHFMR's progress. It was most complimentary in its support for the concept and framework that Messrs. Loughheed, Bradley and the two Deans had evolved. In its report the Board observed: "The programs of the Foundation have produced a unique medical research milieu that is likely not matched elsewhere in the world".⁽⁴⁰⁾

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36. Lampard, Robert "The Alberta Heritage Foundation for Medical Research: Its Formative Years, 1975-2005" in Part 2. An eclectic comparison of Edmonton's expensive Walter C. Mackenzie HSC modeled after Toronto's Eaton Center, the AHFMR and the \$50 million/year Alberta Oil Sands Technology and Research Authority, was written by Jan Brown as Up The Establishment, Saturday Night, pages 15-17, June 1982.
37. McLeod, Lionel E. Money talks. Alberta starts spending its giant medical fund, Alberta Report, page 49, April 10, 1981.
38. AHFMR second triennial report Alberta Heritage Foundation for Medical Research (AHFMR) second Triennial report 1983-1985 Part II, pages 11-12. For a discussion of the shortage of medical research space in the Dr. Walter C. Mackenzie HSC, see J.R. Vant and T. Cashman's *More Than a Hospital*, pages 384-386, UAH, 1986.
39. McLeod, Lionel E. "A Base for Medical Technology Transfer," published in the Conference Proceedings on University Research and the Future of Canada, Edmonton April 26-29, 1988. University of Ottawa, 1989.
40. AHFMR IBR Report International Board of Review (IBR) Report (1986), included with the Second Triennial Report Part II, 1986. Other IBR reviews followed in 1993, 1997 and 2004. The fourth International Board Review (2004) was chaired by Dr. Joseph B. Martin, Dean of the Harvard Medical School. One reviewer described the AHFMR (2004) as being, "the single most transforming event, affecting Alberta's medical research reputation, recruiting and retaining excellent investigators, the quality of education and range of clinical health services, and its effect on diversification and growth of the provincial economy". The report concluded, Alberta is a significant player at the "leading edge of health research...and attracts over \$250 million to support research annually", contributing materially to the Canadian objective to be one of the top five OECD countries in the development of science and technology.
- For Dr. McLeod's reports as President, see the Annual AHFMR Report for 1981/82, pages 1-3; the Third Annual AHFMR Report for 1983, pages 4-7; the Triennial Report for 1980-1983 Part I, pages 6-7; the second Triennial Report for 1983-1986 and the Third Triennial Report, 1989, pages 4-5.



First AHFMR Scientific Advisory Committee, 1981 ³⁴⁻⁹

Dr. McLeod is in the back row 3rd from (L);

Dr. Bradley is in the front (L) seated

Dr. McLeod shared his AHFMR experience at selected gatherings.⁽⁴¹⁾ Notwithstanding, the AHFMR remained remarkably unknown and unheralded as a growing medical research force in Canada and “one of Alberta’s best kept secrets”.⁽⁴²⁾

Under the careful financial management of Dr. McLeod and his successor Dr. Mathew Spence, the AHFMR grew from the initial Alberta government endowment (1980) of \$300 million to approximately one billion dollars. In 2000 a third and fourth medical research buildings on the UofA and UofC campuses, were proposed through an AHFMR challenge offer of \$40 million. Construction started on the two new Heritage Medical Research buildings in 2004/5. By 2004 each dollar from the AHFMR was being levered three fold by research funding from other sources: the MRC/CIHR; the Cancer, Heart, Stroke, and Diabetes Societies, the Federal Government, NIH, pharmaceutical companies, and more.

In 2004, over \$250 million in grants were awarded to the two Alberta Faculties of Medicine. Annual AHFMR expenditures, which reached \$30 million

What was the most satisfying part of your work with the Foundation?

“Oh, the entry of clinicians into research training, the entry of the physician surgeon, psychiatrist, pediatrician into solid research and their emergence as productive scientists. These are the young clinicians who would normally go on to specialty training and practice and a sufficient number of them have been diverted into research by the attractiveness of potential careers – careers they couldn’t see prior to the existence of the foundation.”

Dr. McLeod in an AHFMR Newsletter, 1989

per year during Dr. McLeod’s era, increased to as high as \$53 million during the next decade.⁽⁴³⁾

Recognition of the AHFMR’s success came with the passage of Bill 1 in 2000. The Klein government’s first bill in the millennium established the complementary Alberta Heritage Foundation for Science and Engineering Research, or Ingenuity Fund. It was structured like the AHFMR, at arms’ length from the government of Alberta, with a \$500 million endowment. Hampered by low interest rates, another \$500 million at \$100 million per year was promised by the government, as a centennial gift (2005) to each of the two Alberta Heritage Research Foundations.

President/CEO, UBC, HSC 1990-1993

Dr. McLeod regularly received enquiries or opportunities to move. On a snowy April 1989 day he decided to follow his own philosophy, and continue on his life walk. Every so often your toe strikes something: you look down, and oddly enough it’s exactly what you need at that moment”.⁽⁴⁴⁾ He agreed to an offer to become the Vice-President Medical for three Vancouver Hospitals (UBC HSC, Shaughnessy and George Darby). It was consistent with his pattern of

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41. McLeod, Lionel E. Four articles were published by Dr. McLeod during the 1980s included: 1) “Teaching Hospitals and Faculties of Medicine as National Resources” in *ACMC Forum* XVI, page 6, 1983; 2) “Resource Allocation, A Medical Research Field,” in *Transplantation Proceedings* XVII (6), Supplemental 4, pages 143-145 (December) 1985; 3) “A Provincial Initiative in Medical Research” in the *Proceedings of the International Conference on Health Research: Problems and Opportunities*, pages 16-21, McMaster, November 1985; and 4) “A Base for Medical Technology Transfer” in *University Research at the Future of Canada Conference*, pages 364-369, Ottawa, 1989. Dr. McLeod listed 16 publications in his December 1992 CV, but not the 150 presentations, invited lectures and abstracts he gave or wrote. Lionel E. McLeod Curriculum Vitae, 7 pages, McLeod Family Archives.
42. Lampard, Robert “The Origin of the one of Alberta’s best kept secrets, the Alberta Heritage Foundation for Medical Research,” was the original sixty-eight page manuscript on the Alberta Heritage Foundation for Medical Research written in 2000. In 1998 there was consideration given by the Alberta government to reintegrate the AHFMR endowment into the provincial government’s balance sheet. The IBR review was held one year early, in 1997, to address this concern and the AHFMR’s performance. No changes were made in the structure, reporting mechanism, or financial framework of the AHFMR.
43. Lampard, Robert “The Alberta Heritage Foundation for Medical Research: Its Formative Years, 1975-2005,” annual expenditures on Medical Research. See Table I, in Part 2.
44. Dacks, Barbara Profile of Dr. Lionel E. McLeod, in *The Bulletin of the Faculty of Medicine*, page 18, 1988.

looking afield every five to ten years. A year after his 1990 arrival, the UBC HSC President resigned. Dr. McLeod was asked to accept his position and did.

Dr. McLeod's appointment coincided with the implementation of a new hospital regionalization plan in BC. In February 1993, the Shaughnessy Hospital was designated to be closed and merged with the Vancouver General Hospital. The UBC HSC was to be downsized. It was a difficult time for everyone. Although Dr. McLeod appeared well, an ultrasound check up on March 13, 1993 revealed an abnormal contour to his pancreas. Although asymptomatic he knew he had cancer of the pancreas. He felt "ripped off" but refused to dwell on the diagnosis as family and friends came to visit. Undeterred, he worked until the week before he died on April 10, 1993.⁽⁴⁵⁾

The L.E. McLeod Promising Medical Researcher Scholarship

Shortly before Dr. McLeod passed away in 1993, he was asked by two friends if he would allow his name to be attached to a Promising Medical Researcher Scholarship. He agreed but asked that the terms of reference be "made broad" and based on the quality of the proposal. Contributions from family and friends were matched by the AHFMR. The scholarship of up to \$21,000 per year was initiated in 1994. Applicants were limited to medical and allied health students and graduates from the UofA, UofC and UBC.⁽⁴⁶⁾

The McLeod scholarship became one of the most prestigious prospective researcher scholarships in

western Canada. The first recipient was Reuben Harris a student in Genetics and Biochemistry at the UofA. Three years later Harris received the Governor General's Gold Medal for determining a "Molecular Mechanism of Adaptive Mutation in *Escherichia coli*". It was groundbreaking research on how non-dividing cells mutate: possibly explaining how some cancers could arise. It validated Dr. McLeod's belief that it was important to encourage young researchers to pursue a career in health research.

As an Advisor and Consultant

Dr. McLeod received many consultation requests throughout his years as UofC Dean and AHFMR President. They varied from participating in Health & Welfare Canada's nutrition survey, to the UofT's affiliated teaching hospital's review, and a review of the hospital facilities of Queens University, Kingston. He sat on the Principal's Advisory Committee to the Dean of Medicine at Queens. Back in Alberta Dr. McLeod provided advice to the Alberta Hospital Commission and its Committee on Hospital Utilization.

Appointments

Dr. McLeod accepted many senior medical memberships and executive appointments. He was a charter member (1965) and the second president of the Canadian Nephrology Society (1966-1967). He became a member of the Board (1968-1972) and Chairman of the Education Committee of the Canadian Society for Clinical Investigation (1969-1971); two years later a board member of the Association of Canadian Medical Colleges (1973-1980) and its President (1979-1980); followed by membership on the Board of the Canadian Council on Hospital Accreditation (1975-1977) and its Chairmanship (1976-1977). A member of the Royal College of Physicians & Surgeons Board (1972-1990), he became its President (1982-1984).⁽⁴⁷⁾ As well he was a member of the Foothills Board of Management (1973-1981), the National Institute of Nutrition (1984-1987), the MRC Policy and Priorities Committee (1985-1988), the Canadian Institute for Advanced Research (1985-1992), the Government of Alberta Research Advisory Committee (1983-1990), and Chembiomed Ltd. Board (1986-1990).

Bill 1

Alberta Heritage Foundation for Science and Engineering Research Act

MR. KLEIN: Thank you, Mr. Speaker. I beg leave to introduce Bill 1, the Alberta Heritage Foundation for Science and Engineering Research Act. This being a money bill, Her Honour the Honourable the Lieutenant Governor, having been informed of the contents of this bill, recommends the same to the Assembly.

Mr. Speaker, this bill puts into place a \$500 million endowment to enhance science and engineering research in Alberta. Hopefully it will help to keep the brightest and keenest scientific minds right here in our province.

[Motion carried; Bill 1 read a first time]

Alberta Hansard February 17, 2000

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45. McLeod, Barbara, Personal communication, June 4, 2001 and December 13, 2004.
McLeod, Laura
46. Editor Alberta Heritage Foundation for Medical Research. Triennial Report, pages 59, 61, 1986. The Lionel E. McLeod Health Research Scholarship was endowed with contributions from over twenty-three donors from around the world. It was matched by the AHFMR. The research awards are up to \$21,000/year depending on other awards the awardee may have received.
47. McLeod, Lionel E. Letter dated March 9, 1993 written to the President of the RCPSC for inclusion in the Presidents and Past Presidents 1993 Time Capsule. Copy in the McLeod Family Archives.



Barbara McLeod presenting the first L.E. McLeod 34-10 Scholarship to Reuben Harris, 1994

His community contributions were diverse as well. He was Chairman of the Alberta Heart and Cancer Medical Advisory Boards for six years, joined the Calgary United Way Board, and was a member of the Rotary Clubs of Calgary and Edmonton. He was Chairman of the Edmonton Art Foundation and the Edmonton Bach Tercentenary Festival.

Awards

McLeod's awards were numerous and included the Distinguished Medical Alumnus of UofA (1976), an honorary fellowship in the Royal Australian College of Physicians & Surgeons (1983) and the Royal College of Physicians and Surgeons of Edinburgh (1984), the Alberta Achievement Award (1987), the Distinguished Service Award of the Canadian Society of Clinical Investigators (1989), as well as the Ronald V. Christie Award from the Canadian Association of Professors of Medicine (1990). Dr. McLeod received an Honorary Doctor of Science degree from the UofA (1988) and an Honorary Doctor of Laws from Queens (1990) and the UofC (1992).⁽⁴⁸⁾

Posthumously, the Boardroom of the UBC Health Science Centre was named after him (1993).⁽⁴⁹⁾ He received the 125th Anniversary Confederation Commemorative Medal (1993), the BC Health Association Special Acknowledgement Award (1994), the Alberta Science and Technology Foundation AS Tech award as a pioneer in Science and Technology (1994), and Dr. McLeod was recognized as one of Alberta's 100 Physicians of the Century (2005).

Dr. McLeod and the McLeod Family

Dr. McLeod's affable personality, imperturbable yet never-hurried nature, open-door approach, and ability to work within a team framework were increasingly important attributes, as he rose from a lecturer at UofA to the second Dean of Medicine at UofC. By training and by choice Dr. McLeod always seemed to be the right person at the right time. His easy-going style belied his ability to deal with the daily details of a deanship, and at the same time develop an achievable long-term plan for the Faculty.

Dr. McLeod always had broad support for his initiatives from his staff. His friends commented on his uncommon wisdom, dedication, wit, charm, unflinching concern, clear vision and unrelenting insistence upon excellence. "He was candid, straightforward, honest, and to the point. He handled great affairs with aplomb, by not taking himself too seriously. However, he was serious about his profession and how it must strive to maintain the privileged trust of the public, in its daily delivery of medical care."⁽⁵⁰⁾

He had an uncanny knack of finding good people and helping them succeed by instilling pride and confidence in them. As one colleague recalled, "I can always trust Lionel. If he says something, you know he really believes it, and he will do what he says."⁽⁵¹⁾ Another remembered him as "responsible, conscientious, dependable and wise in his delibera-



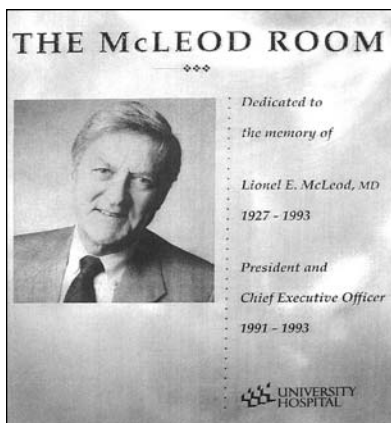
*34-11
Past Presidents of the Royal College (back row L-R) Drs. B. Perey, L. McLeod, R. Salter, (front row L-R) R. Gunton, J. Burgess, D. Wilson, Ottawa, 1992*

48. McLeod, Lionel E. Curriculum Vitae, 1990, pages 3-5.

49. (McLeod, Lionel E.) The McLeod Room. Program and dedication of the UBC Health Sciences Center Site Boardroom, June 1, 1993.

50. McLeod, Lionel E. "Convocation Address (1984) to the Royal College of Physicians and Surgeons of Canada," *Annals REPC* 18(2): 105-106, March 1985.

51. McLeod, Lionel E. AHFMR News letter, pages 11-12, Nov/Dec 1989.



34-12

Plaque, the McLeod Board Room, UBC HSC, Vancouver
 tions. His vision for what was appropriate and correct for medical education and research...was correct."⁽⁵²⁾ A third noted his persistent "drive for new horizons, attraction to innovation, fostering of initiatives and paradigm shifts to improve results or process."⁽⁵³⁾

McLeod was just as comfortable in jeans or a suit. No one was unimportant, from the orderly to the university president. Many sought his counsel: "Who is not his friend who heard him speak once? He drew men toward him by what was best in them...It is the gift of the great."⁽⁵⁴⁾

Dr. McLeod loved the outdoors. His recreational pursuits were numerous: skiing, tennis, running, biking, swimming, or sailing. He loved to hike in the Rockies and was delighted to join Drs. Smitty Gardner and Tait McPhedran and his son Bruce, on an expedition to the remote HBC Committee Punchbowl on the summit of the Athabasca Pass, the route pioneered by David Thompson. Widely read, Dr. McLeod enjoyed researching prairie history, Louis Riel, the North West Rebellion, and the Palliser Expedition. Music was another enjoyment. It started with the piano lessons he took from the Nuns in Wainwright. He learned to play the trumpet and performed in a local dance band. Playing by ear he could trumpet the last post on Remembrance Day, or dazzle his family playing jazz on the piano.

Dr. McLeod's family were important and close to him. The McLeods had four children: Laura (1953) MD, FRCPC, a senior public health consultant, Bruce (1955) M.A., LLB, a lawyer, Judy (1958) B.Ed., a homemaker, and Nancie (1960) BA, an Interior Designer. To them he imparted his greatest gift, that of an enquiring mind.⁽⁵⁵⁾

Eulogy

At his funeral Dr. Cochrane remembered Lionel McLeod as a friend and colleague with the words of Robert Louis Stevenson:

*To have lived well,
 laughed often and loved much;
 to have gained the respect
 of intelligent men...
 to have left the world better...
 to have looked for the best in others,
 and to have given the best of yourself.
 That is achievement.*⁽⁵⁶⁾

Related Profiles: Jamieson, D.R. Wilson, Mackenzie, Cochrane

Related Perspectives: The Alberta Heritage Foundation for Medical Research 1975-2000: Its Formative Years

Key Words: Markle Scholar, Chronic renal dialysis, UofC Dean, AHFMR President, HSC (UBC) President



*The Lionel McLeod family at Lake Louise, (standing) 34-13
 Dr. Laura McLeod, John Humphrey, Barbara McLeod,
 Bruce McLeod, Judy Bow, Dr. McLeod; (kneeling)
 Lucinda Flavelle, Christopher Bow, Ellen McLeod,
 Nancie McLeod, 1989*

52. Volpe, Robert

"In Memoriam, Lionel Everett McLeod," *Annals RCPSC* 26(3): 182-183, June 1993.

53. Anonymous

UofA's Folio magazine, written shortly after his death. Copy in possession of the author.

54. Scott, Arthur A.

Dr. Lionel McLeod – a Tribute, page 4.



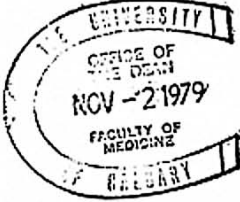

55. McLeod, Barbara

Personal communication, July 10, 2005.

56. Cochrane, William A.

"Eulogy to Lionel Everett McLeod 1927-1993." The quote was from Robert Louis Stevenson's poem, Achievement. Copy deposited in the McLeod Family Archives. Reprinted in the *Annals RCPSC* 26(3): 183, June 1993.

Appendix I

<p>HARVARD MEDICAL SCHOOL</p> <p>JOSEPH B. MARTIN, M.D., PH.D. Bullard Professor of Neurology</p>		<p>MASSACHUSETTS GENERAL HOSPITAL</p> <p>CHIEF, NEUROLOGY SERVICE Massachusetts General Hospital Fruit Street, Boston 02114 (617) 726-2383</p>
		
<p>October 25, 1979</p>		
		
<p>Dr. Lionel McLeod Dean, Faculty of Medicine University of Calgary Calgary, Alberta Canada</p> <p>Dear Lionel:</p> <p>I am writing to tell you that I enjoyed the opportunity to meet with Premier Peter Loughheed on October 5th.</p> <p>We had a free-ranging discussion with respect to the evolving plans and strategy of the Heritage Fund for Medical Research. I must confess my astonishment at the degree of interest, knowledge and general information that was apparent on the part of the Premier. It is clear that he considers this endeavor to be a major part of the "heritage" that he will leave to the province and that he wants to do it right.</p> <p>I found the administrative organization which he has proposed to be a sound one and would think that there is a genuine effort on his part to hold the whole endeavor at arms length from government to depoliticize it and to allow academic freedom.</p> <p>I think a major concern for all of you will be how to implement the first few years of a program which provides such massive amounts of money at a time when the necessary excellence and eventual development of a critical mass can only be accomplished over a period of several years. We spent a considerable amount of time discussing this issue and it will certainly be a crucial component of the eventual success of the development plan.</p> <p>I thank you for the opportunity to meet with him. As I indicated to the Premier I would be honored to function in any role that might provide a contribution to the evolving plan.</p> <p>With warm regards.</p> <p style="text-align: right;">Yours sincerely,</p> <p style="text-align: center;">  Joseph B. Martin, M.D., Ph.D. </p> <p>JBM: rnf</p>		

Letter from Dr. Joseph Martin to Dr. McLeod, after the visit of Premier Loughheed to Harvard, 1979