In 1889, Toronto was the scene of a major epidemic of diphtheria. The Medical Officer of Health, Dr. Norman Allen, called on the Sisters of St. Joseph to offer nursing assistance in a specially created isolation hospital. This was the first involvement of the Order in direct patient care. In 1892, the Girl’s Hostel, operated by the Sisters in a former Baptist Church, was converted into a hospital with 26 beds, 6 doctors, 5 staff nurses, and 5 student nurses. In the same year, the hospital was recognized by the University as a teaching institution. St. Michael’s has remained a fully affiliated hospital with the U of T since that time.

Anaesthesia was emerging as a specialty in 1915 when Leo Killoran was appointed Chief anaesthetist. He used a McKesson gas machine and often administered spinal anaesthetics. Ethylene was used for a short time and cyclopropane was adopted soon after its discovery. Following Dr. Killoran’s death, Clayton Bryan...
became Chief. He had seen service overseas in World War I and had spent time in Chicago learning the technique of administering various gas mixtures. He was head of the Department until 1952. In 1963, he reached retirement age, the first member of the staff to live to do so!

Kenneth Heard introduced intravenous anaesthesia at St. Michael’s. He published his results on the early use of thiopental in 1934–35, and on the use of spinal anaesthesia, in which he was considered an expert. He stated that any anaesthesia other than spinal for Caesarian section was tantamount to malpractice. Dr. Heard was a man of firm convictions in his practice, and was instrumental in introducing endotracheal anaesthesia in the face of much opposition from some of the surgeons. In 1943, the Montreal Society of Anaesthetists was incorporated as the Canadian Anaesthetists’ Society with divisions in each province, and Kenneth Heard was the first Vice-President. In 1946, he was President of the CAS and moved its headquarters to Toronto. A.J. Dunn was a junior intern at the time of Dr Heard’s death in 1948 and participated in his care in his final illness.

In the early years, senior medical students were instructed and supervised as they administered anaesthetics. The anaesthetists were general practitioners who did anaesthesia in the mornings. The first resident, in 1935, was L.A. Stubensey who became a local legend because of his dynamic and extroverted personality. During WWII, the staff consisted of Drs. Bryan, Stubensey, Heard, Killoran, and some general practitioners.

Joseph A. Vining returned from the war in 1945 to join the staff and became certified by examination. He succeeded C. Bryan as head of the department in 1952. A.J. Dunn (1950) was the first
member of staff who was not involved in general practice. The hospital then was approximately 900 beds, with an anaesthesia staff of six, plus two residents. By 1974, there was a staff of 20 and 8 residents for approximately 700 beds. In 1950, the hospital was divided into public and private wards, with virtually no fees derived from the “public” patients. Surgery was quick with direct participation by the surgical staff in almost all operations. As a rule, lists finished between noon and 2 o’clock, and afternoon golf was a possibility for anaesthetists!

In 1959, the income-sharing clinical practice group, Anaesthesia Services was established by Art Dunn, Steve O’Rourke and Stan Zeglen. Paul Bailey (1953), Zonko Bak (1956) and Art Cole (1960) soon joined the group and spent much of their professional career at St. Michael’s. All retired during the 1990s. Dr. M.T. Spence joined the Department from 1954 to 1960, the first woman appointed to the Department at St. Michael’s Hospital. In 1964, Don Finlayson returned from Boston to become Chief of the Intensive Care Unit. Don was an outstanding clinician with a flamboyant and direct approach. Throughout the 1970s, he recruited many younger anaesthetists, who had a focus on critical care and cardiovascular anaesthesia (e.g., Jim Ewen, Bill Noble, John McLean, Gord

D.C. Finlayson

John McLean
Goldenson and others). Don left for Emory University, Atlanta in 1979. Two other members, John Jacobs (1964) and Doug Gebbie (1968), left in 1973 to practice in the United States.

Joseph Vining was succeeded as Chief by Lucien E. Morris in 1968. Dr. Vining died of lung cancer in 1972 at the age of 57. Lucien Morris was recruited from the United States by R.A. Gordon, the Department Chairman, to establish an academic department at St. Michael's. Also a forceful personality, he was able to acquire departmental space and facilities of high order, and initiated a laboratory for basic science research which continues to the present. He was chief until 1970 when he returned to the U.S.

Arthur Dunn became the next chief and under his leadership, 1970–1981, the academic department was further strengthened. Teaching activities expanded with David Sinclair involved with the Respiratory Therapy program at the Michener Institute. Dr. Dunn was the first recipient of the Dr. H. Beatty Cotnam Annual Award given for “outstanding contribution to public safety” for his chairmanship of the Anaesthesia Advisory Committee to the Chief Coroner of Ontario. Dr Dunn’s contributions to anaesthesia were further recognized when he was awarded the Canadian Anaesthetists’ Society Gold Medal for meritorious service in 1981.

In the original undergraduate medical school curriculum of the 1960s, students in the final year were assigned to Anaesthesia during two weeks of the surgical rotation. The teaching was direct and personal, and guided many graduates into the specialty. Formal didactic teaching in the junior undergraduate years included a series of six lectures by members of the Department. Arthur Dunn recalled the deliberate ignition of ether as a feature of one of Dr. Shields’ lectures. In the 1970s curriculum,
students were assigned for a 2 week period in their clerkship. Clinical teachers who organized and led the program included Joan Wearing, Harry Foster and Hal Braden. The Arthur J. Dunn teaching award was initiated in 1995 at Dr. Dunn’s retirement. Alex Kennedy was the initial recipient of the award for undergraduate teaching.

In 1981, William Noble succeeded Arthur Dunn as Chief. A clinical study, done by Bill with Bill MacKay, a resident, established the need for pulse oximeters. St. Michael’s Hospital was the first group to make capnography mandatory and stated that no anaesthetics would be given without continuous monitoring of CO₂. This was met with considerable “anxiety” by administration, due to a worrisome hospital deficit but the capital expenditure was approved and St. Michael’s had all anaesthetic machines fitted with these devices for routine monitoring before the CAS guidelines mandated the change.

In 1987, R. Byrick was appointed Chief. He continued as Director of the Intensive Care Unit. This was a period of rapid growth in clinical demands as the hospital was recognized as an urban trauma center. In 1993, Keith Rose became Anaesthetist-in-Chief and continued his work in the outcomes of anaesthesia. He published several important papers documenting critical respiratory and cardiovascular events in the Post-Anaesthesia Care Unit. This work was done in collaboration with Marsha Cohen, a clinical epidemiologist, and Doreen Yee who had been a fellow at St. Michael’s and
was on staff at Sunnybrook. This work demonstrated the potential for multi-site epidemiologic outcome studies in Toronto. The results also changed how post-operative pain management was delivered. Peter Leung and Bok Chan developed an acute pain service that provided expert care. During his term, Dr. Rose also became head of Peri-operative Services for the hospital. He resigned in 2000 to take the position of Vice-President, Medicine at North York General Hospital. Patricia Houston was appointed Anaesthetist-in-Chief. She was and is a Royal College Examiner, Chair of the Royal College Written Test Committee, and had done much work on education in anaesthesia. She also became Director of Peri-operative Services.

The Research Laboratory

A unique part of St. Michael’s was the animal research lab, which resulted from the vision and energy of Lucien Morris. When Dr. Morris arrived, St. Michael’s provided the research space and facilities, while the University provided a technician salary. This collaborative effort was a model for the future. Colin Kay was hired as Chief Technician, a University employee. Operating expenses were provided from peer-reviewed grants. Dr. Morris stimulated residents to do research. Bill Noble borrowed equipment from Fraser Sweatman and investigated vaporizer accuracy. This work won the CAS Resident competition. This led to further work by Hannah Samulska and S. Ramaiah (residents) demonstrating
that machines were unexpectedly exposing patients to low concentrations of agents even when “off.” This work formed the basis for our ‘clean machines’. Bill Stoyka worked with electromagnetic flow probes measuring cardiac output in various acid-base states and also won the CAS Resident competition. In 1970, when Dr. Morris moved to Toledo, Ohio, Bill Noble returned from studying in San Francisco and directed the lab. He achieved MRC funding for studies on lung water measurements and proceeded to study pulmonary edema. Dr. Stoyka joined the staff in 1971 and continued research studying cerebral responses to hypotension and anaesthetic interventions. This work also moved to the operating room, where clinical measurements of cerebral blood flow were made. Jiri Obdrazalek, Chris Famewo and Bob Byrick did pulmonary physiology research and Yahaya Kadiri, Joe Fisher and Raymond Martineau worked as research fellows. Studies of ventilation/perfusion mismatching in microembolic states were later applied to fat microemboli. Keith Rose pursued clinical epidemiology and published results of several large outcome studies related to the post-anaesthesia care unit. More recently, David Mazer has made contributions in cardiovascular physiology, Andrew Baker in neuroanaesthesia and traumatic brain injury, and Hwan Joo in airway management. Greg Hare was recruited to pursue mechanisms of brain injury after hypoxemia and apply genomic technology to study these important effects.
The Laboratory fostered collaboration with other Departments. The research projects originated as clinical problems and were taken to the laboratory to study. The lab and the ICU were major recruiting tools for the Department throughout the 1980s and ’90s. Clinical investigators Drs. Noble (twice), Stoyka and Byrick (twice) were recipients of the Canadian Anaesthetists’ Society Award for the Best Anaesthesia Research published in Canada. As a stable and very positive influence on these individuals, Mr. Kay remained Chief Technician until his retirement in 2002. Through his years in the laboratory he was an essential contributor to the research work of the department: he oversaw the development of computer technologies, provided statistical expertise, introduced new experimental methods and co-authored many papers.