THE HANDS OF FRIENDSHIP—CONSUMER OR CONTRIBUTOR:
1991 PRESIDENTIAL ADDRESS, TRAUMA ASSOCIATION OF
canada/l’association canadienne de traumatologie

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DR. BLAISDELL, members of the Trauma Association of Canada, members of the American Association for the Surgery of Trauma, honoured guests, ladies, and gentlemen.

Most presidential addresses commence with the formality that the President is honoured to be able to give this address. I would like to modify this and share this most important event in my life with my country, Canada, the province of Quebec, the Montreal General Hospital, McGill University, the membership of the Trauma Association of Canada and the Brown family, with special attention to my wife, Kathy, who finds my car keys, wallet, and so forth and has gotten me on the road to work for the past 26 years, our four wonderful children who have given me happiness as well as a few sleepless nights, and my mutt dog, Oreo, who always welcomes me home no matter the time of day. I truly have had a great team with me.

THE HANDS OF FRIENDSHIP: CONSUMER OR CONTRIBUTOR

In the early years of the history of modern Quebec and later Canada, a hardy group of men, the “coureurs des bois,” full of the spirit of adventure, raw courage, and unlimited energy, departed from different towns in Quebec as we now know. Oftentimes their destination was unknown, but they hoped to find gold. Frequently they returned to their original points of departure with canoes full of valuable beaver pelts. They reached Lake Superior and the Mississippi River Valley.

In 1822, one unfortunate voyager, Alexis St. Martin, suffered a shotgun wound to his abdomen at Fort Mackinac.1 It was an extensive injury exposing the diaphragm, penetrating the stomach and entering the thoracic cavity. A young American army surgeon, Dr. William Beaumont, dressed and debrided the wound. After two hours or more of effort, he left the army barracks convinced that the patient would succumb within 36 hours. These sentiments were echoed by the entire base. To the absolute amazement and dismay of all, including Dr. Beaumont, the patient survived.

When Alexis St. Martin recovered at the fort, all the social problems of an indigent foreigner recovering from a serious injury and unable to travel were realized. The patient was asked to leave. Dr. Beaumont took him into his own home, since he feared the voyager would quickly become a statistic if he attempted the long difficult trip back to Quebec. For two years he nursed him and dressed his wounds. Finally, the voyager was nearly back to normal, except for a gastric fistula.

In 1825, Dr. Beaumont began his classic observations on the fistula as it related to gastric physiology. This was one of the first clinical studies ever done. St. Martin was one of the first to be paid for his contributions as the patient. Dr. Beaumont’s observations were first presented in the Philadelphia Medical Record in 1825.1 The unique bond between the medical communities of Canada and the United States had been forged.

The pride of the University of Toronto, McGill University, the University of Pennsylvania, and Johns Hopkins University, Sir William Osler, was a Canadian. His innovative bedside teaching,2 a first at our hospital, is the basis of teaching at all critical care trauma units in the world today.

He also made a second and equally important contribution. As consultant, he was asked for his opinion on what was the appropriate therapy for Dr. Harvey Cushing’s severe abdominal distress. He was the person who convinced Dr. William Halsted that an appendectomy was this patient’s only chance for survival. Dr. Cushing recovered, and went on to make many contributions to the specialty of neurosurgery, especially as it relates to trauma.

Dr. Thomas Ruddick published, in 1880,3 the earliest experience in Canada, and possibly North America, of the use of the Lister antiseptic technique in surgery. Erysipelas wards were closed, mortality from amputations took a precipitous fall, and the overall death rate

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Presented at the joint meeting of the Trauma Association of Canada and the American Association for the Surgery of Trauma, September 11-14, 1991, Philadelphia, Pennsylvania.
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for major surgery was 3.12% for 64 cases. This was an historical accomplishment in Canadian surgery. In addition, this amazing surgeon worked and organized the care of the wounded with Dr. James Bell in the Riel Rebellion of 1886. Bell's early recordings on chest trauma were equally exciting.

Sir Frederick Grant Banting, the discoverer of insulin, received the Nobel prize in Physiology or Medicine in 1923. After he had earned the military cross for heroism under fire during World War I, he returned to his alma mater, the University of Toronto. During his residency in orthopedics at the Hospital for Sick Children, his classic experiments with Dr. Charles Best led to the discovery of the crude extract “isletin,” later renamed “insulin.” Injected into diabetic dogs, and, 8 months later, into a 14-year-old boy with end-stage diabetes, the crude extract prolonged life. It was this discovery that led to his Nobel prize.

His commitment to the care of the injured led to his premature death in an airplane crash in the wilds of Newfoundland in 1941. He had been on his way to England to serve as a research physician/surgeon for World War II casualties. The importance of insulin in the glucose homeostasis of all patients can be justly attributed to a Canadian orthopedic surgeon-in-training.

Dr. Richard Mullins and Dr. Donald Trunkey wrote an eloquent paper on the patriarch of American academic trauma surgery, Dr. Samuel Gross. According to Dr. Alexander Walt, the world’s best known surgeon was a Canadian, Norman Bethune. He created the first mobile blood bank in 1938 during the Spanish Civil War.

In Canada, however, during the first 48 years of the 20th century, one man has been our most outstanding trauma surgeon. He was Dr. Fraser B. Gurd, who was born 1883 and died in 1948. His scholarly publications on all aspects of the care of accident victims were clear with sharp deductions made from his unlimited observations and experiences. He had been closely associated with and participated in two world wars. These events contributed to his lifetime interest in wounds, burns, emergency care, and trauma at his hospital, the Montreal General Hospital. Original work on the use of topical antibiotics in burns by Gurd and Ackman, over 50 years ago, resulted in the first publication on this mode of therapy.

As chairman of the Department of Surgery at McGill University, he started the residency training program and also the graduate degree program, Master of Science in Experimental Surgery. Dr. Gurd became a regent of the American College of Surgeons and in 1938, he presented the Fracture Oration (later called the Scudder Oration). Internationally, he was a founding member of the Fracture Committee of the ACS, American Board of Surgery, the Central Surgical Association, and the American Association for the Surgery of Trauma.

After World War I, Dr. Gurd was in charge of surgery at Ste. Anne’s Military Hospital near Montreal. There he became involved in both reconstructive surgery and the surgical treatment of chronic posttraumatic empyema in the veterans of the war. From this latter experience, he went on to add thoracic surgery to his broad general surgical armamentarium, achieving recognition and being elected president of the American Association for Thoracic Surgery. He was the third president of the AAST. His Presidential Address, in 1941, “The Treatment of Gunshot Wounds,” is recommended reading for each one of us. His limitless energy, dedication, and foresight pushed Canada’s surgical community into the international field of surgery and trauma care. He was our 20th century “courreur des bois”!

World War II saw the problems of extremity cold injuries reappear. The submersion of the feet of sailors in life boats led to a large number of these patients arriving for care in Halifax, Nova Scotia. The publication of Dr. Donald Webster and Dr. F. M. Woolhouse, produced while they were working at the affiliated hospitals of Dalhousie University, is one of the earliest and best on this subject in the trauma literature.

The post-World War II years saw an explosion of surgical research, as the emphasis in academic surgery shifted from clinical observations to the sophistication of the laboratory. Three Canadian surgeons stand out as having made class contributions to the understanding and management of the problems of trauma.

Dr. H. Rocke Robertson, a trainee of Dr. Fraser B. Gurd at McGill University, set up a laboratory at the Shaughnessy Hospital of the University of British Columbia. His early observations led him to start a wound infection data system. This collection was the basis for his publications on wound infections in surgical patients, an important reference for any study done on this subject. In 1959, he returned to McGill, as surgeon-in-chief at the Montreal General Hospital and Chairman of the Department of Surgery, McGill University.

With his arrival began a host of activities. Robertson had a large surgical laboratory constructed, renovated the emergency room to function like the receiving area in England where he worked in World War II, and planned a surgical intensive care unit. The care of patients with multiple injuries was the prime responsibility of the general surgeon as team leader. All surgical specialties could be coordinated and mobilized under the direction of this general surgeon. Thirty years later, the same physical plant survives, struggling to cope with the 1990s. In a short time, Rocke Robertson had academic surgery flourishing at McGill, and left his previously mentioned post to be the first surgeon appointed Principal of McGill University.

A life long friend of Dr. Robertson’s, Dr. Fraser N. Gurd, assumed the vacated position as Chairman at McGill University and Chief-of-Surgery of the Montreal General Hospital. He was able to fulfill both his own dreams and those of his father, Dr. Fraser B. Gurd, by establishing a world class research laboratory to compli-
ment the already strong clinical staff of the hospital. The research team he guided, consisting of Dr. Gustavo Bou- nous, Dr. A. Hope Mc Ardle, Dr. L. G. Hampson, Dr. R. C. -J. Chiu and a stable of residents, worked on problems of low flow states, resuscitation, and its consequences. Their observations in shock of phosphate mucosal metabolism, mucosal mucus synthesis, alveolar surfactant, and grading of intestinal ischemic damage culminated in their classic paper, “The Prophylactic Use of an Elemental Diet in Experimental Hemorrhagic Shock and Intestinal Ischemia.” This was the first time that “elemental diet” appeared in the world literature. Many clinical papers followed this laboratory observation. Dr. McArdle, in 1981, summarized her experiences with enteral feeding in “A Rationale for Enteral Feeding as the Preferable Route for Hyperalimentation and Its Consequences.” She also published a paper on its use in burn therapy.

Dr. Fraser N. Gurd was a member of the AAST throughout his entire active career. He was Recorder and Associate Editor of the Journal of Trauma in the early days. He was the President of AAST in 1968. In recognition of his contributions to the American College of Surgeons regarding trauma care, he was asked to give the Scudder Oration in 1976. A volume of Surgical Forum was dedicated to him in 1979. He remains an honorary consultant to the American College of Surgeons’ Committee on Trauma to the present day. His lifetime accomplishments and search for excellence in the care of the injured is recognized in Canada by “The F.N. Gurd Lectureship of the Trauma Association of Canada.” In 1985, he received the Surgeons’ Award for Service to Safety, which is given jointly by the National Safety Council, the AAST, and the American College of Surgeons. He is Canada’s senior ambassador of trauma care.

The third Canadian surgeon to contribute to the advancement of research in trauma and its application to patient care was Dr. Lloyd MacLean. He was Surgeon-in-Chief at the Royal Victoria Hospital, Montreal, from 1962 to 1988, as well as serving three terms as Chairman of the Department of Surgery at McGill University. Although his research interests were many, his observations on septic shock, both in the laboratory and in humans, were outstanding. Dr. John Duff and Dr. Peter McLean collaborated on many of his fine papers.

In 1979, Dr. Lloyd MacLean was the William Fitts lecturer at the annual AAST meeting. In his speech, he highlighted his new interest in the role of the immune system in sepsis. Dr. Jonathan Meakins, current Chairman of Surgery at McGill, presented in 1977 at the AAST session his observations on 60 trauma patients under the title “Delayed Hypersensitivity and Neutrophil Chemo taxis: Effect of Trauma.” Dr. Meakins’ first paper and this one, stimulated worldwide interest in the immunologic defects of septic and injured patients. The final answers remain elusive, but these early observations are pivotal in any research today.

Dr. Hampson’s paper, presented in 1954, is as valid today as it was then. It was “A Comparison of Intra-Arterial and Intravenous Transfusion in Normal Dogs and in Dogs with Experimental Myocardial Infarction.” In addition, G. P. Toussaint, working with Burgess and Hampson, presented “Central Venous Pressure and Pulmonary Wedge in Critical Illness,” in 1974. The conclusion, regarding left ventricular failure and pulmonary congestion in the face of a normal central venous pressure, has been a guide in critical care since its publication.

Dr. John Duff, Chairman of the Department of Surgery at the University of Western Ontario, was one of the first surgical residents to work with Dr. MacLean when he arrived at McGill. He has contributed significant observations on the injured and critically ill. Two of his best papers are “The Diagnosis and Treatment of Shock in Man Based on Hemodynamic and Metabolic Measurements” and “Amino Acid Profiles in Critical Illnesses.”

Plastic and reconstructive surgery has played a vital role in trauma care in Canada. Dr. F. M. Woolhouse was a trainee of Dr. A. W. Farmer, Canada’s first academic plastic surgeon, at the University of Toronto’s Hospital for Sick Children. Dr. Woolhouse became Director of Plastic Surgery and the first co-ordinator of trauma services at the Montreal General Hospital in 1959. This was the first position of this description created in Canada. He had only seven publications. Two papers he co-authored were, and still are, important reference articles. “The Principles of Treatment of the Mangled Hand,” by Dr. H. C. Brown and the “Treatment of Chronic Osteomyelitis” by Dr. J. G. Shannon.

Dr. H. B. Williams followed him and became Chairman, Division of Plastic Surgery, at McGill University, and current President of the American Society of Plastic and Reconstructive Surgery. He has made a lifetime commitment to the care of injured patients. He started the first provincial pediatric burn unit at the Montreal Children’s Hospital (1960s). He has carried out careful clinical and laboratory studies on microsurgical repair of peripheral nerves and the transfer of skin flaps by microsurgical anastomosis. Techniques for intraoperative diagnostic recording of nerve lesions have been perfected in his laboratory. A long list of residents have worked in his laboratory and graduated from his program. They are practicing in Canada and the United States.

Today, pediatric surgery worldwide accepts the principle of conservative treatment for splenic injuries in children. This treatment was controversial when the surgeons from the Hospital for Sick Children in Toronto first presented their early observations and recommendations. Their strong data, however, won the day. Dr. David Wesson, a surgeon at the hospital, presented and contributed to two classic papers on splenic trauma in which the guidelines for surgery were set at a blood loss exceeding 40 mL/kg of body weight. Dr. Wesson’s
presidential address\textsuperscript{35} to the Trauma Association of Canada was food for careful consideration.

In Canada, the first regional, fully equipped, and funded trauma center was started in 1976 at Sunnybrook Hospital, which is affiliated with the University of Toronto. Dr. Robert McMurtry, presently the Chairman, Department of Surgery, University of Calgary, was the driving force behind its establishment. A fine team, representing all specialties, was assembled. The first modern helicopter air evacuation system developed in Canada was there. Their work on the treatment of pelvic disruption in patients with multiple trauma is a landmark regarding treatment protocol.\textsuperscript{36}

Dr. J. C. Kennedy and Dr. Rorabeck from the University of Western Ontario, London, Ontario, and Dr. Percy from McGill and later University of Arizona, made fine presentations to the American Association for the Surgery of Trauma, Dr. Kennedy's initial presentation on the acromioclavicular joint received applause from the prominent orthopedic surgeons of the AAST.\textsuperscript{37} Dr. Rorabeck's laboratory investigations on anterior tibial compartments syndrome was a landmark presentation on this problem.\textsuperscript{38} Dr. Percy, in an editorial in the Journal of Trauma, alerted North America to the dangers of the snowmobile. He described the unique injury patterns associated with its use and suggested solutions.\textsuperscript{39} The second Fraser N. Gurd lecturer, Dr. Robert N. Meeks, has made both clinical and research contributions from the University of British Columbia.\textsuperscript{40} The work by Dr. Robert Salter, past president of the Royal College of Canada, on classification of pediatric epiphyseal fractures is a reference article for the world.\textsuperscript{41}

Dr. Leon Don'tigny, a surgeon at the University of Montreal's Hôpital Sacré Coeur, a founding member of the Trauma Association of Canada, and our fourth president, described the common injury patterns and trauma care in Canada in his Presidential Address in 1987.\textsuperscript{42} His colleague, Dr. Alain Verdant,\textsuperscript{43} has devoted his life to perfecting the total care of patients with descending aortic aneurysms resulting from trauma and atherosclerosis. Their results reflect their commitment to injured patients at Sacré Coeur and their tireless search for optimal results.

Dr. Joseph Gruss, formerly of the University of Toronto and Sunnybrook Hospital, is a world leader in the reconstruction of severe facial injuries. He introduced into Canada, and North America, micro-units to help realign the injuries.\textsuperscript{44} Against the persistent dogma, he inserted them at the time of injury in order to obtain the most satisfactory cosmetic results. In this way, he hoped to avoid the additional psychological trauma that accompanies disfiguring injuries. He is now at the University of Washington in Seattle.

The first provincial burn unit in Canada was established at the University of British Columbia in 1975. Dr. Charles Snelling's devotion to the care of burn patients, along with his meticulous recordings and publications are a story alone. In 1981 he established Canada's first skin bank with full-time technical help. He was a Canadian pioneer in skin cell cultures (1987). One of his fine original papers is mentioned here to complete his list of accomplishments.\textsuperscript{45}

In 1983, The Royal College of Physicians and Surgeons of Canada recognized the new specialty of Emergency Medicine. A young group of energetic, bright, dedicated fellows came to prominence with specific interest in the emergency care of trauma victims. Dr. Peter Lane's contribution, as founding member of the Trauma Association of Canada and president of this Association, was pivotal.\textsuperscript{46} The best chapters on airway management, presently available, were written by Dr. Ronald Stewart at Dalhousie University. He formerly was at Sunnybrook Hospital, University of Toronto.\textsuperscript{47}

Dr. Barry McClelland, presently a co-director of Trauma Services at Sunnybrook Hospital, is one of the most productive publishers on trauma in Canada today. His presentation at the Trauma Association of Canada's meeting, "Blood Alcohol Testing of MVA Crash Admissions to a Regional Trauma Unit,"\textsuperscript{48} received most favorable peer reviews. He heads an active research group on substance abuse, and the role of the immune system in patients survival in trauma.

Dr. Charles Burns, the founding father of the Trauma Association of Canada, started the Trauma Registry for the province of Manitoba as a model for all of Canada in 1981.\textsuperscript{49} His life as a general surgeon has been devoted to the care of the injured and the teaching of trauma care at the University of Manitoba. His constant reminder to all that trauma care needs special dedication leaves him a special place in the annals of Canadian trauma care.

In the 1980s, Dr. David Mulder, Chief-of-Surgery at the Montreal General Hospital, has been the Canadian "courreur des bois" in the international trauma picture. He was the 45th President of the AAST and the Scudder Orator in 1986. He has many original publications to his credit: "The Use of Fiberoptic Bronchoscope for Airway Access,"\textsuperscript{50} "The Vascular Complications of Crush Injuries Around the Knee Joint,"\textsuperscript{51} and his co-authorship of the book entitled Principles and Practice of Research—Strategies for Surgical Investigators, editions 1 and 2, published by Springer-Verlag.\textsuperscript{52}

It was his energy and participation in the AAST that brought the Trauma Association of Canada to meet with them jointly every four years. The acceptance and publication by the Journal of Trauma of our annual papers was the key to our assured survival. These are all star accomplishments.

The University of Toronto had Canada's first neurosurgeon, Dr. K. G. McKenzie, and Dr. E. Harry Botterell, the premier Canadian neurosurgeon in World War II, followed as Chief of Service at the Toronto General Hospital. He had innumerable accomplishments in the treatment and rehabilitation of injured patients with craniocerebral trauma. In 1947, at the Harvey Cushing
Society, he presented his classic observation on the disruption of the frontal and temporal lobes as a cause of secondary coma following head injuries.54

After the war, automobile accidents rapidly increased and the number of head injuries appearing at all hospitals around the world rose dramatically. Radiographs, air injection studies, and angiography were limited and the Glasgow Coma Scale, a clinical evaluation tool, had not yet appeared. In 1963, a Canadian neurosurgery resident, Dr. Robert Ford, while working with one of the great neuroradiologists of his time at St. George's Hospital in London, England, published an original paper entitled, "Echoencephalography—The Measurement of the Position of Mid Line Structures in the Skull, with High Frequency Pulsed Ultrasound."54 In 1972, Ambrose came to the Montreal Neurological Institute and presented his initial experience with computerized x-ray scanning of the brain, especially in relation to trauma and brain tumors.55 This was a first in Canada. Today, no trauma centers can exist without this diagnostic tool.

Dr. Charles Tator, the present chairman of the Department of Neurosurgery at the University of Toronto was the first F. N. Gurd lecturer at our joint meeting four years ago. His lifetime interest in injured patients, especially spinal cord injuries, has earned him the highest respect in Canada and internationally. His care, laboratory research on spinal cord injuries, and his active participation in rehabilitation are exemplary.56

One of the earliest papers published by Dr. Michael Schwartz, President Elect of the Trauma Association of Canada, dealt with "The Uptake of Radioactive Hydrocortisone in Brain Oedema."57 The techniques used were perfected in Dr. Tator's laboratory.

Dr. Peter Richardson, a neurosurgeon at the Montreal General Hospital, did original investigation into the axons in the peripheral nervous system and central nervous system forming sprouts after injury. His research is highly acclaimed throughout the world.58 This exciting work offers new hope to the victims of spinal cord disease and injury.

The foregoing address encompasses a personal overview of the historical and present day contributions Canadians have made to the care of injured patients. Employing the Journal of Trauma as an unbiased barometer to gauge Canadian contributions to trauma literature the following is evident: During the years of 1961, 1970, and 1971, the Canadian contributions were embarrassingly low. Since 1987, we have had our most productive years. This reflects our arrangement with the Journal to have our annual meeting presentations published (Fig. 1).

Two hundred years ago, in the city of Philadelphia, the Bill of Rights was signed into the American Constitution. With it individual freedoms regarding the press and speech were guaranteed. A critical analysis of the Canadian contributions to trauma care, previously mentioned, reflects two facts. Each achievement was either presented initially or eventually in the United States. The publication of the information was in an American journal. Our access to the same freedoms as your country has allowed us to be productive academically and to survive under our present restrictive medicare system.

**SUPINATED HAND REASON FOR SURVIVAL**

The Canadian medical community has been a voracious consumer of the productivity of each one of you members, present and past. Each of the founding members of the American Association for the Surgery of Trauma has made a lifetime contribution to the care of Canadian trauma victims. The stretching of the Association's founding charter to include Canadians has allowed us to be part of the forefront in teaching, surgical care, and research of this disease, with its resultant cross fertilization. For me personally, this is the way that I have gained the requisite knowledge and have stayed abreast of advancements in the care of the injured. It started during my medical school career, where I answered a question on a surgery examination on fractures by quoting Dr. Kellogg Speed's famous advice: "Splint 'em where they lie." This quotation enabled me to get one of the rare A's during my medical school career. As a visiting resident at the Milwaukee County Hospital, Dr. Joseph Darin taught and counselled me on the care of critically ill and injured patients.

The motives of pharmaceutical companies are often distrusted by the academic medical community for fear that critical analysis will be dampened by the quest for profit. Dr. H. Rocke Robertson,54 in July of this year, recalled to me the amazing story of the manufacturing of penicillin. Dr. A. Fleming, in Florey's laboratory in Britain, discovered the new wonder drug. The business head of the laboratory, Florey, tried without success to have the antibiotic produced commercially by the major pharmaceutical companies in Britain. As the storms of war grew, he came to New York. He contacted all the major companies, without success. A dejected and de-
pressed Florey was about to leave for home when he phoned a smaller company, Pfizer. The medical director asked him to delay his trip home. An agreement was reached, and the antibiotic was produced commercially in sufficient amounts to be available to the American troops and the soldiers of the British and Canadian forces, when indicated. This is one of the most important medical events to have occurred during World War II.

Dr. William A. Altemeier was selected as one of the principal investigators to participate in the clinical cooperative trials on penicillin in America in the early 1940s. He taught the world the critical areas of infection and surgery. Dr. Wesley Alexander reported in this tribute to him, “he has reached hundreds of thousands of physicians in more than a thousand lectures, seminars and publications.”60 Cefoxitin gained the prominence it has in Canada by work done by Thal’s group at Parkland.61 Erwin Thal’s hard work and enthusiasm as chairman of the Committee on Trauma for the American College of Surgeons penetrated the frost line at the Canadian border.

When I was a resident, Dr. Fiorindo Simeone visited our early shock resuscitation room at the Montreal General Hospital. I awoke from my usual sleepy, post-lunch state as his group and Dr. Fraser N. Gurd engaged in lively dialogue regarding the pathophysiology and appropriate treatment of a patient in shock. The discourse was, at times, above my comprehension, but how stimulating the man was. His 1983 William Stone lecture is a classic composition of the evolution of the modern treatment and recognition of hemorrhagic shock.

The Journal of Trauma has had four editors in its 31 years. Each one has guided it through difficult times. Dr. William Fitts and Dr. John Davis are the only ones I have had the privilege to know. Each man visited our institution as a visiting professor. The lectures they gave, with enthusiasm, sparked a renewed interest in the care of injured patients at the M.G.H.

Dr. John Davis has a special place in the hearts of all of the surgical staff at the Montreal General Hospital. He came as visiting professor in 1970, just at the end of a disastrous strike with the government over medicare. He was successful in rekindling a positive purpose. He wisely pointed out that strikes, like wars, are events that end. You must make the most out of them as a human experience and get on with your life in academic surgery.

John Davis has a personal bibliography of academic publications in the hundreds. His original participation with Dr. John Howard’s research team in the Korean conflict led to the reduction of the amputation rate for popliteal injuries from 70% to 20%.62 His energies and purpose have guided the Journal of Trauma to the highest level of excellence. This is our reference for trauma care in Canada.

In reviewing all the issues of the Journal of Trauma for the past 31 years, one theme appears common. The general population and the medical community have a great apathy regarding the disease of trauma. In 1973, The Journal of Trauma, was dedicated to Dr. Sam Seeley on his retirement as Professional Associate of the Medical Sciences National Academy of Sciences, National Research Council. He was a co-author of “Accidental Death and Disability: The Neglected Disease of Modern Society.”63 It was published in 1966. In 1983, Dr. Donald Trunkey presented the problem again in Scientific American.64 Susan Baker also presented it in 1985.65

Dr. Donald Gann, in his presidential address to the AAST, had a profound message for all citizens and offered a reason for this apathy.66 He suggested that the word “injury” should be substituted for accident in an attempt to impress on all of us that an “accident” is clearly avoidable, not a fatalistic event. Dr. John West67 has been an early pioneer of prevention messages in high schools. Dr. Stewart Hamilton’s68 presidential address for TAC re-emphasized this and pointed out the prevention avenues to be explored to accomplish this.

Donald Trunkey’s publications are the most commonly quoted in our country. He has been both a colleague and friend, coming to Canada on numerous occasions to lecture at the meetings of the Royal College, the Canadian Medical Association, and the Quebec Association of General Surgery, and as a guest lecturer on other occasions. Bluntly, we have been told that all is not well regarding trauma care above the 49th parallel. He has stirred and stung the politicians, the medical establishments, and, especially, the elective surgical group. He has been a constant source of encouragement to the members of the Trauma Association of Canada.

The care of the burned patient has challenged and attracted outstanding surgeons in the United States and Canada. Curtis Artz was a man of tireless energy and a dynamic speaker, who devoted his life to treating the injured, especially those with burns. He closed his 1972 presidential address to the AAST with this profound challenge: “Renew your vows to your fellow-man; make your commitment; and go in peace.”69 The dedication of Dr. Basil A. Pruitt, Jr., to the care of burned patients is evident in a center of excellence, the U.S. Army Institute of Surgical Research, Fort Sam Houston, San Antonio, Texas. The teaching of all medical personnel and the presentations and research done by staff and visiting surgical scientists while working at this institution, have guided burn care throughout the world during the past 25 years. The paper by Drs. Goodwin and Pruitt on fluid resuscitation of burned patients with its resultant lung consequences is one example of their research excellence.70 It also has been my pleasure to work with Dr. William McManus on the ATLS Subcommittee.

Nutritional support of all surgical patients emerged from the University of Pennsylvania, with Dudrick’s71 classic article. Later, Curreri72 reported the use of the enteral diet in burned patients when the gut was functional. Moore’s73 publication on the benefit of the enteral diets as the means of nutritional support for multiple
trauma patients added to its credits. This publication reaffirmed the dictum of Gurd, Bounous, and McArule that a functioning gut should be used, not put to rest.

Dr. Preston A. Wade, the president of the AAST in 1962, named Dr. Robert H. Kennedy as United States' 20th Century "Mr. Trauma." In prehospital education and emergency room care and design he was a pioneer. He edited one of the American College's most popular and successful publications, "Emergency Care of the Sick and Injured." Trunkey, in his presidential address, praised the work of Jacobs, Maull, and McSwain for educating and providing consultations to prehospital workers and their systems. The time commitment and leadership to the BHATLS by McSwain is most commendable. This has upgraded the knowledge of these health care providers in our country. Lewis's thoughtful, precise paper on the rate of hemorrhage from different injuries has allowed appropriate decision making regarding "scoop and run" to be made. The use of the helicopter, popularized by Cleveland in Colorado, has penetrated the Canadian wilds.

When everyone was on the "MAST garment" bandwagon, repopularized by ATLS, Mattox sounded a clear warning about problems with the use of this garment. He brought the use of this device into proper perspective. In our library, his textbook with Moore and Feliciano already has many worn pages. In 1986, he was our visiting lecturer at the annual TAC meeting with the Royal College. His appearance gave his young society instant credibility.

Oscar Hampton stated that the categorization of a hospital should be based upon its capabilities to render life-saving treatment in the entire hospital facility, i.e., the emergency room, the operating room, and critical care areas. Dr. R Adams Cowley pioneered the institution of the trauma center concept. Dr. Boyd organized the state of Illinois in 1971. The American College of Surgeons' Committee on Trauma, has developed the criteria for "Optimal Care of the Trauma Patient," the reference document for designation processes in North America. Wolftherth has been diligent in his efforts to implement and record the present level of hospital designation in the United States and Canada. The publications of Shackford et al. provide the best data on the benefits of a trauma system, studying the results before and after the institution of the system, based on the recommendations of Wolftherth's consultative group. Champion's tireless search for a workable reproducible trauma scoring system with outcome has produced a model in the world's injury scoring. Politicians, bureaucrats, social health scientists, and hospital administrators are not always happy with all this data, but fortunately for trauma surgeons, they cannot ignore it.

Wayne State University, located in Detroit, is very close to Canada. The influence of the work of Lucas, Walt, Ledgerwood, and Wilson on the care of the injured in Canada is "significant." Their literature on liver injuries, the crystalloid/colloid controversy, coagulation in trauma victims, presidential addresses, and many others, have been totally utilized by us. They have taken time from heavy clinical and national responsibilities to be visiting professors at our universities and Royal College lecturers.

Dr. Harrison L. McLaughlin, a graduate of Queen's University, Kingston, Ontario, left a legacy of superior accomplishments in orthopedic surgery and trauma care. Leaving Canada after his internship, he spent his entire career at Columbia-Presbyterian Medical Center. He was an outstanding individual whose teaching, surgery, and academic accomplishments were culminated by his presidency of the American Association for the Surgery of Trauma, Chairman of the Committee on Trauma and honorary member of the American Academy of Orthopaedic Surgery.

Dr. Gerald Shaftan's Scudder Oration, in 1988, at the American College meeting, was a thorough look at the past and he predicted future innovations in trauma care. It was a true reflection of this man's career in academic trauma care.

Trauma systems are topical in Canada today. Dr. Gerald O. Strauch's article, "Trauma Systems, a Bibliography of Component and Issues," is constantly on the lender list from my office. As Director of the American College, Trauma Department, he has been a constant companion and source of instant help to the Canadian trauma community.

Approximately 10,000 Canadian physicians have taken the Advanced Trauma Life Support course since 1981. Dr. Paul Collicott, Irvine Hughes, and Dr. John George started and organized the "Cornhuskers' Conference" concerning the care so critical to injured patients during that "golden" hour. In the early 1980s, Dr. Robert Gillespie and Dr. David Pilcher often came to eastern Canada and made big contributions to start the ATLS program. Dr. Max Ramenofsky is the present chairman of the Subcommittee on ATLS and has continued to make many new contributions to this excellent course. As a teaching tool for trauma care, it is now and will continue to be a part of medical history in North America and around the world. At McGill, Dr. David Mulder decided that our graduating medical students, if they wished, should have the opportunity to take the entire course. For seven years, each February, we have taught 100 students. It is the most popular course taught by surgeons at McGill.

Through the generosity of Dr. James Salander, I was able to participate in his course offered to graduating students of the Uniformed Services University of Health Sciences, Bethesda, Maryland. Here I became aware of the procedures necessary to run a medical school program successfully. All the advice freely given to me was invaluable in our own setting. At the end of the course, Dr. Norman Rich had each instructor to his office. I was so impressed that a chairman of a department of surgery
would take the time to say hello and have a chat. This gracious gentleman’s contributions to vascular surgery have made medical history.

Each of the past presidential addresses of the AAST and the infant TAC has had a profound message. George Sheldon’s address, “Medical Education and the Trauma Surgeon—The Role of AAST,” is an extensive document that could be marketed commercially as one of the five best sellers. From Robert Freeark’s, “The Trauma Center: Its Hospitals, Head Injuries, Helicopters, and Heroes,” I would like to quote from his description of a less controversial hero. He is “Dr. H. Blaisdall Shirtrndon, an academic trauma surgeon, who unlike many of his academic colleagues, takes care of patients, teaches residents, operates in the middle of the night, and has worked in public and now private institutions.”

The care of injured patients dominates the energies of the people here. Anxiety reigns in both the United States and Canada about inadequate medical funding. Schwartz recorded, four years ago, the deficit of payment through the DRG system. Politicians such as Kennedy and Rockefeller see votes and prestige in the proposal of a medicare system that covers all Americans.

The popular press and some of your medical publications refer to two attractive aspects of Canada’s medical plan. It is universal, where all people living in Canada are insured. Most importantly, approximately 9% of the gross national product is used to finance it. This is a reality for the following reasons. Some expensive medical services, i.e., critical care beds, are quietly rationed. This has led to unacceptable care for patients needing cardiac surgery and level I trauma care. Only one province, Ontario, adds extra monies to hospitals designated level I trauma centers.

Canada has the lowest proportion of its gross national product directed to medical research and development of all major industrial nations. In 1983 and 1984, Canada spent 0.25% in trauma research compared to 2% for the United States. These are the reasons that our financing costs are low. We can provide good patient care by our heavy reliance on the developing technologies and new research emanating from the United States. We are fortunate and financially in a favored position as instant consumers of all new and important medical developments.

The Trauma Association of Canada is one of the only societies of the Royal College to reach out across the borders of our country. Friendship, like so many intangibles in the world, cannot be measured by statistics or money. It does not appear on curricula vitae or the Dean’s honour list. It is a very personal event that each one of us cherishes. For all members of the Canadian medical community, those who have trained, wholly or in part, in America, are members of your surgical or medical societies, sit on the boards of your journals, or have participated in any other events that have brought us together. This friendship is real. It is a sustaining force and a life-long asset.

Canadians and the members of the Trauma Association of Canada have made small but significant contributions to the care of injured patients. Our historical accomplishments should be a source of pride to all of us. When we are concerned about the small numbers of patients to record, remember the work of Frederick Banting and the discovery of insulin. He did not need p values or modern statistical analysis to have an impact on the importance of the discovery of insulin. The Journal of Trauma provides the developing academic centers with an international forum for their publications.

We are voracious consumers of all the literature made so readily available to us by the protected freedoms of the United States. This allows Canada to provide good care for the injured at a lower cost. I am personally confident that you will emerge with a payment system that we as consumers can rely on in the future, assured of the same academic vitality and leadership as in the past. The fine men and women of the American Association for the Surgery of Trauma, since its founding, have a history of being caring physicians. The hands of friendship starting with the care of a “coureur des bois,” in 1822, symbolize an eternal bond between us.

Dr. Fraser N. Gurd is Canada’s senior ambassador of trauma care. He and his late wife, Lulie, “an American,” epitomized all aspects of the hands of friendship. I am so proud that he is here today and would like to thank him for his valuable advice on this address and his lifetime stimulation and encouragement in my career as a trauma surgeon.

Acknowledgment

I would like to express my thanks and appreciation to Dr. Fraser Gurd for his guidance in the preparation of this address. I would also like to thank Mrs. Maria Cortese and Mr. Benoit Paquette for their secretarial assistance.

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