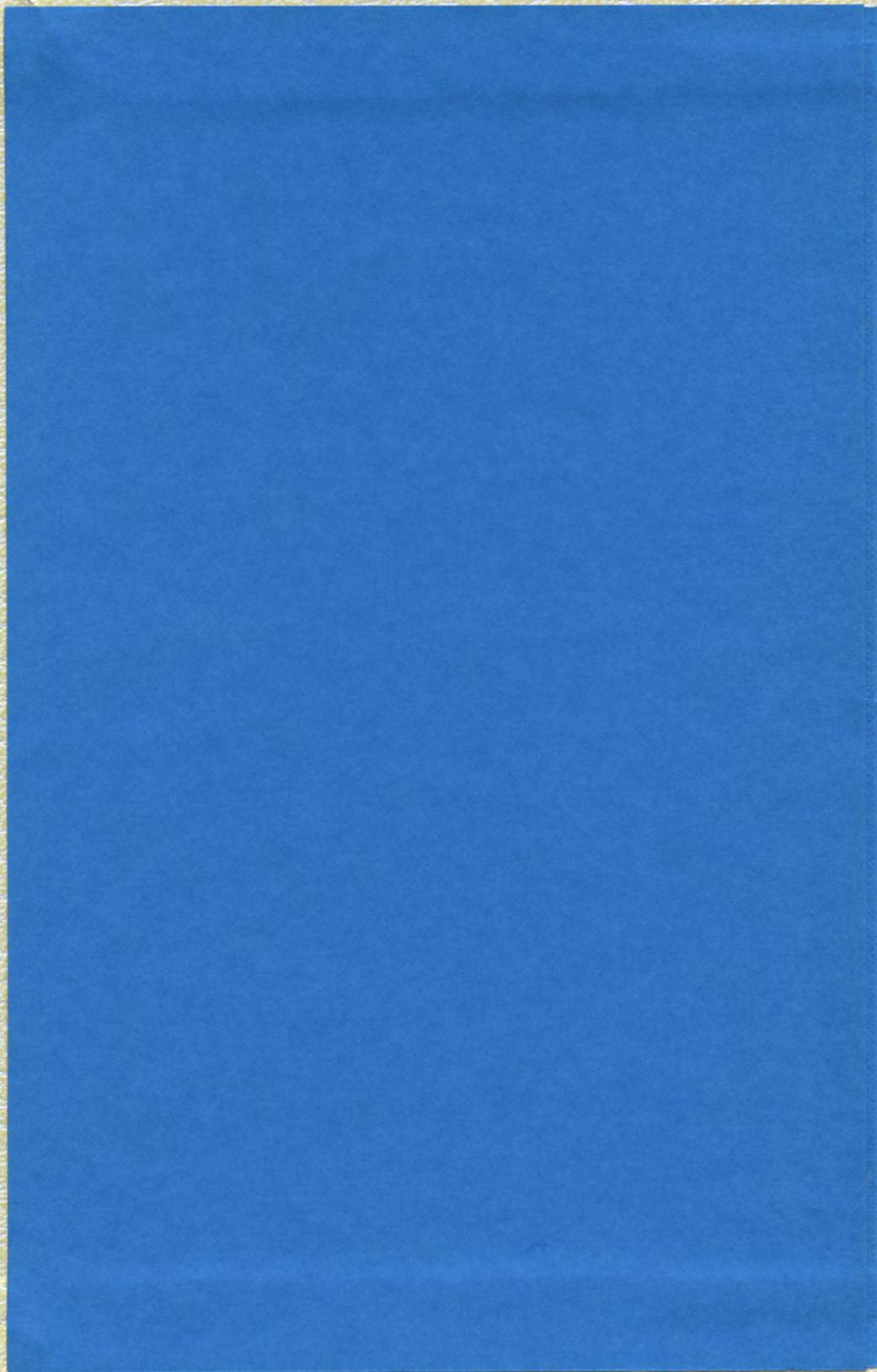


CAREERS
IN ANESTHESIOLOGY

Two Posthumous Memoirs

M.T. JENKINS
BY ADOLPH H. GIESECKE

FRANCIS F. FOLDES
AN AUTOBIOGRAPHY WITH
CONTRIBUTIONS BY
EPHRAIM S. SIKER



CAREERS
IN ANESTHESIOLOGY



*Headquarters Building of the American Society of Anesthesiologists.
Almost one third of the three spacious floors is devoted to the
collections of the Wood Library-Museum.
(From a painting by Professor Leroy Vandam)*

CAREERS IN ANESTHESIOLOGY

Two Posthumous Memoirs

M.T. JENKINS, M.D.

A Biography

by

ADOLPH H. GIESECKE, M.D.

FRANCIS F. FOLDES, M.D.

An Autobiography with Contributions

by

EPHRAIM S. SIKER, M.D.

EDITED BY

B. Raymond Fink

Kathryn E. McGoldrick

THE WOOD LIBRARY-MUSEUM OF ANESTHESIOLOGY
PARK RIDGE, ILLINOIS
2000

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EDITORS' NOTE PREFACE TO MEMOIRS

These memoirs inaugurate a new experiment in living history from the Wood Library-Museum of Anesthesiology. They present autobiographical panoramas of the protracted revolution which overtook anesthetic practice in the second half of the twentieth century. Principal participants here retell the motivations, actions, incidents and dominant events of their careers, virtually unburdened by limits of self-expression.

This volume pulsates with creative diversity, the throb of artisans busily weaving individual threads of their own making, into a tapestry more than a little reminiscent of a philosophy articulated by Chief Seattle at about the dawn of anesthesia.

This we know.

*All things are connected
like the blood
which unites one family*

*Whatever befalls the earth
befalls the sons and daughters of the earth*

*Man did not weave the web of life,
he is merely a strand in it.*

*Whatever he does to the web
he does to himself.*

Someone has said that the unexamined life is not worth living. Well, here is a clutch of lives examined, found pre-eminently

worth living—and most decidedly worth reading! As already indicated, they are distinguished invited cameos from the renaissance of anesthesiology in World War II and its aftermath. Their sequence is fortuitously geographic, rotating with the planet from west to east. Others awaiting the next turn of the press are delayed only by the incompressibility of time.

For the present group of bedside pleasures, you and I are deeply indebted to WLM's Board of Trustees and Publications Committee, to prince of librarians Patrick Sim, to Karen Bieterman, stellar assistant librarian, to our production expert, Roz Pape, and to devoted staff working at the headquarters of the American Society of Anesthesiologists. Thanks to the exceptional vision of our Society, a large part of that comely building is Paul Wood Library-Museum territory. Inside and out, the entire edifice exudes pride and dedication to the ageless ideals of the physicians who planned, own, and use it. Leroy Vandam's evocative painting, frontispiece to this and subsequent volumes, reflects the subtle unifying role of the Society in the careers you are about to savor.

—B. Raymond Fink, M.D.

—Kathryn E. McGoldrick, M.D.

EDITORS' PREFACE

TWO POSTHUMOUS MEMOIRS

The Wood Library Museum of Anesthesiology is here privileged to present two exceptionally edifying biographical works, composed under unusual auspices. Those of us who knew Pepper Jenkins are delighted to read the story of the genius which he brought to the practice, research, and organization of Anesthesiology. Every page of it sparkles with enthusiasm, wit, and wisdom, reported by his chief lieutenant and immediate successor, Buddy Giesecke. What an inspiring career, and what an accomplished example of biographical writing!

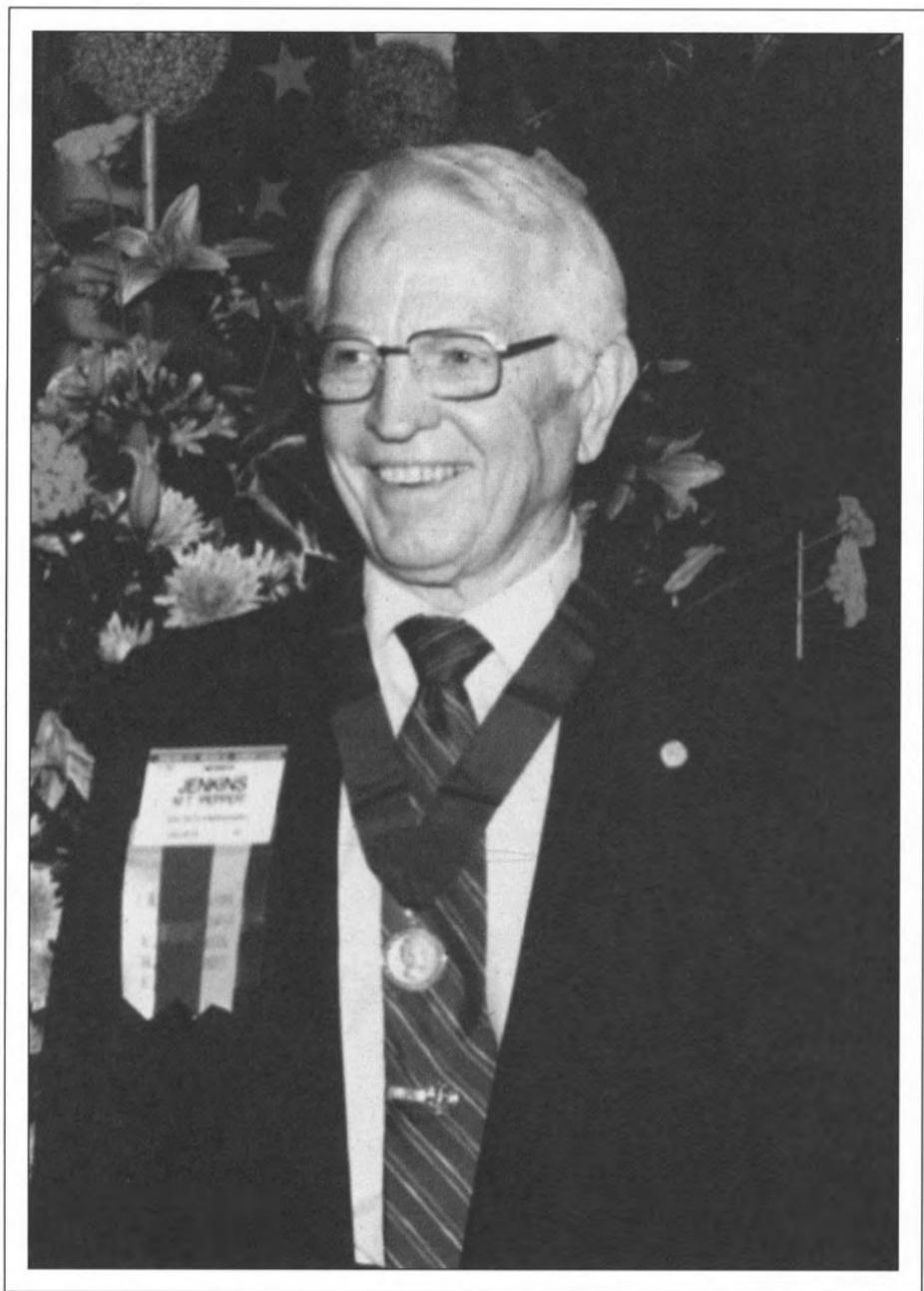
No less a tribute does justice to the verve and humor which the late Francis Foldes wove into the memories of his native, prewar Hungary and the gripping narrative of his classic odyssey in the United States.

“Death was too hastyfe ... to reve thee thy life.”

But Rick Siker has completed the record with a gripping account of later landmarks. These explain the affection and admiration felt by all who had the privilege of friendship or acquaintance with Francis, good-natured titan of American post-war anesthesiological history.

—B. Raymond Fink, M.D., Publications Chair

—Kathryn McGoldrick, M.D., Co-Chair



M.T. "Pepper" Jenkins, M.D., (1917-1994)

M.T. “PEPPER” JENKINS, M.D.

RETIRE D MCDERMOTT PROFESSOR AND
FORMER CHAIR

DEPARTMENT OF ANESTHESIOLOGY
AND PAIN MANAGEMENT

UNIVERSITY OF TEXAS
SOUTHWESTERN MEDICAL SCHOOL

A BIOGRAPHY

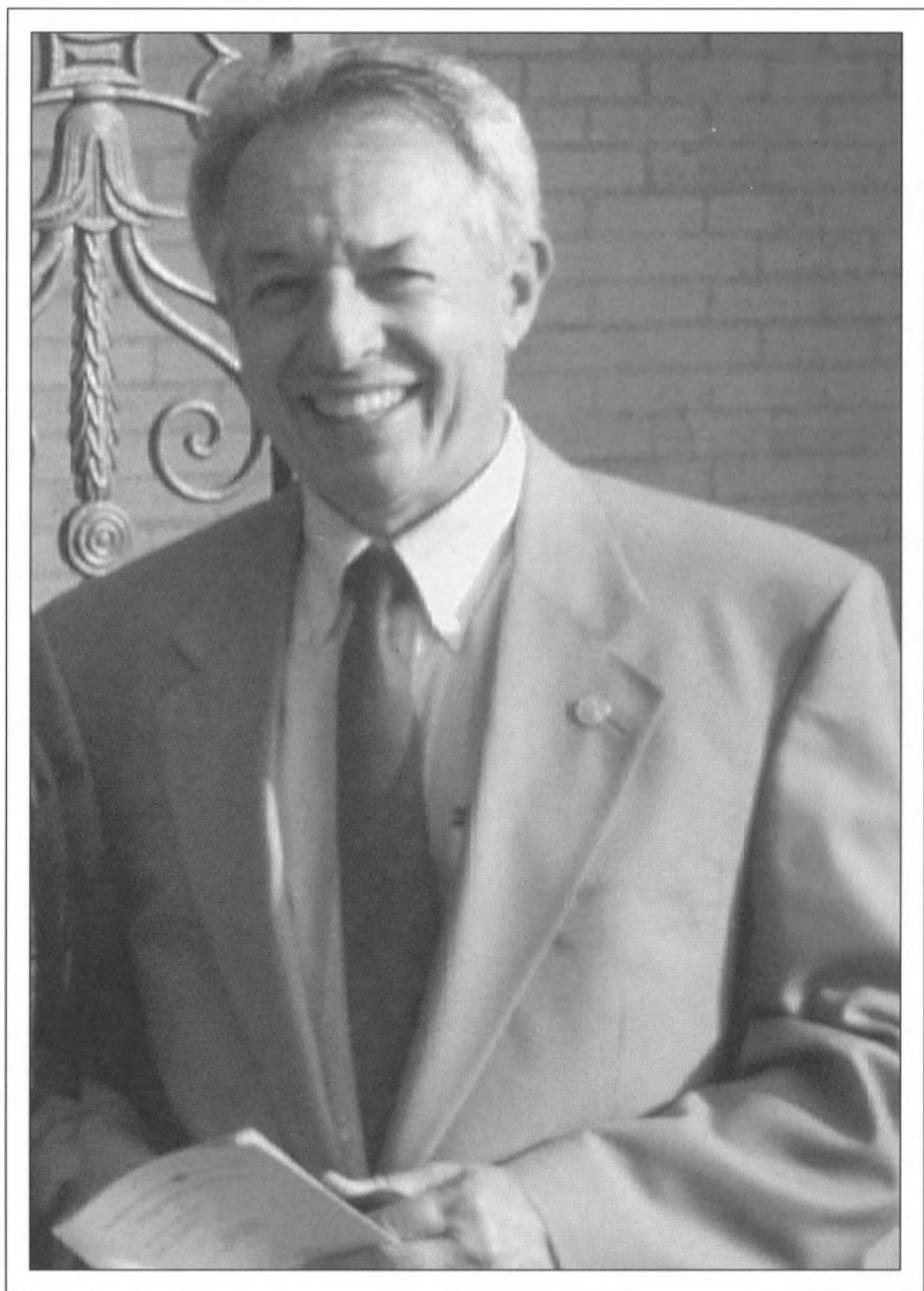
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UNIVERSITY OF TEXAS
SOUTHWESTERN MEDICAL SCHOOL
DALLAS, TEXAS



Adolph H. Giesecke, M.D.

FOREWORD

As I teach students and residents, I frequently ask questions about the pioneers of our medical specialty. I learned that knowledge of the history of our own department and its founder, Marion Thomas Pepper Jenkins, who died in 1994, was rapidly fading. I determined to write the history in a book entitled *Anesthesiology at Southwestern, The First Fifty Years* primarily for our residents, former residents, and faculty. The first six chapters deal almost exclusively with Pepper Jenkins's career. Raymond Fink reminded me that Pepper contributed greatly to organized medicine, especially the American Society of Anesthesiologists and the American Medical Association. He convinced me of the merits of publishing the first six chapters of my history as a biography of Pepper Jenkins. Because he was a leader of great stature in anesthesiology, his biography deserves a place in the *Careers* series. Readers who want subsequent information on the Department of Anesthesiology and Pain Management at the University of Texas Southwestern Medical School should consult the book mentioned above. In an effort to develop subjects in some detail, I did not follow a precise chronology. As a service to the reader, here is a time line.

- 1917. Marion Thomas Jenkins was born on February 11 in Hughes Springs, Texas. He did not like the name Marion so he was called "Pepper."
- 1940. Pepper received the Medical Doctor degree from the University of Texas Medical Branch, Galveston.
- 1941. Pepper completed a rotating internship at the University of Kansas in Kansas City. He began a residency in Internal Medicine in Galveston.
- 1942. Pepper reported for duty in the United States Navy, serving in the South Pacific aboard the seaplane tenders USS *Chandeleur*. He married Elizabeth Jean Weaver, a student nurse whom he met in Kansas City.

1944. Pepper was assigned to the United States Naval Dispensary, Little Rock, Arkansas. His first child, Gregory, was born July 31, 1945. Two more followed: Philip in 1947, and Christine in 1952.
1946. Pepper began a residency in General Surgery at Parkland Hospital, Dallas. On the advice of his mentor, Dr. Carl Moyer, he began a residency in Anesthesiology at Massachusetts General Hospital in September 1946.
1948. Pepper returned to Parkland to establish the Division of Anesthesiology of the Department of Surgery.
1949. Pepper established the Recovery Room at Parkland Hospital, the first recovery room west of the Mississippi River.
1950. Landmark article on use of balanced salt solutions in traumatic shock was published in the *Archives of Surgery*.
1951. Dr Robert Dodd joined the faculty and the application for a residency training program in anesthesiology was approved.
1955. Anesthesiology became a separate department in the University of Texas Southwestern Medical School.
1963. Pepper, along with Drs. Malcolm Perry, Charles Baxter, and James Carrico, participated in the unsuccessful attempt to resuscitate President John F. Kennedy after he was shot in Dallas.
1966. Mr. and Mrs. McDermott endowed the chair in anesthesiology, naming the chair in honor of Mrs. McDermott. Pepper was designated first holder of the Margaret Milam McDermott Chair.
1972. Pepper became President of the American Society of Anesthesiologists.
1974. Pepper was a delegate from the American Medical Association to the Peoples Republic of China.
1978. Pepper received the Distinguished Service Award of the American Society of Anesthesiologists.
1980. Pepper presented the Rovenstine lecture to a plenary session of the annual meeting of the American Society of Anesthesiologists.
1981. Pepper retired from the chair but remained in the department until 1994. Dr. Adolph “Buddy” Giesecke became the chairman.

- 1988. Pepper received the Distinguished Service Award from the American Medical Association. He was the first anesthesiologist in history to receive this prestigious award.
- 1994. Pepper died on November 21.

This history is dedicated to the students and residents whose constant inquiries have forced me to pay attention to academics; to my family whose patience permitted me to develop an academic career — my wife Roni and my children, Carl, Suzanne, Martin, and Eric; and to my colleagues whose collaborations have built the department. I thank my secretaries Joyce Mandujano, Sherry Jackson, and Brenda Jackman for the precise preparation of the manuscript and assistance with the illustrations.

— Adolph H. Giesecke, M.D.
Retired Jenkins Professor and
former Chairman Anesthesiology
and Pain Management
University of Texas Southwestern



Figure 1. Homer L. D. Jenkins, a family practitioner in Hughes Springs, Texas poses circa 1920 with his two sons, Vance on the left and Marion Thomas “Pepper” Jenkins on the right.

(PHOTOGRAPH COURTESY OF CHRISTI JENKINS)

M.T. “PEPPER” JENKINS, M.D.

A BIOGRAPHY

“What can be said of a man who has given so much of himself to so many others and to so many activities dedicated to enhancing medical care, education, and the quality of life?”

— E.S. SIKER, M.D.

1. A LEADER MATURES

On November 21, 1994, M.T. “Pepper” Jenkins, M.D. died peacefully at home in Dallas after suffering for four years with carcinoma of the stomach. He was a great teacher, clinician, and leader in organized medicine. His career was productive, filled with many achievements, and his works were recognized by numerous awards and honors. He was the founder of the Department of Anesthesiology at The University of Texas Southwestern Medical School.

To a major extent, the history of the department is the history of its founder. One cannot avoid spending considerable time and space on his early years if one is to understand his charisma, his impact on the department, and his contributions to the practice of anesthesiology in the world.

Pepper Jenkins was born in Hughes Springs, Texas, February 11, 1917, the son of a successful physician whose five brothers were also physicians. Pepper was filled with humorous stories about his childhood in a small town in the piney woods of east Texas. He was a remarkable storyteller, with a magical ability to involve the listener in the drama, conflict, and resolution of the tale. He told this story about his childhood and claimed that it was the source of his inspiration to a medical career.²

The elder Dr. Jenkins was called to attend a sick housewife and invited his young son, Pepper, to go along. The two rode for several miles in the horse-drawn carriage along the unpaved road leading away from town and finally arrived at the dirt-floored shack. In the yard were many well-nourished farm animals: pigs, chickens, and one fine cow. Dr. Jenkins took a history, did a proper examination, and made a diagnosis. He then spread out seven squares of wax paper on a shelf next to the cabin wall. He carefully measured one day's dose of medicinal powder onto each paper square. He planned to fold these separately to provide one week's therapy for the ailing housewife.

The wall above the shelf suffered from a large horizontal defect caused by failure of the mud caulking. Through this defect the family cow stuck her tongue, and with a graceful sweeping motion, consumed the entire week's medication, complete with wax paper squares. Pepper and his father both gasped in horrified amazement. "Dammit Doc," the farmer exclaimed, "if that junk hurts my cow, you are in trouble."

Pepper frequently helped his father with his practice of medicine, and when he finished high school was firmly convinced that he wanted to be a doctor. He majored in premed at the University of Texas in Austin and graduated with a bachelor's degree in 1936.

Pepper rarely spoke about his college days at The University of Texas at Austin or about his medical school days at The University of Texas Medical Branch at Galveston, where he received his M.D. degree in 1940. In spite of his lack of conversa-

tion, I know that he had powerful feelings about medical school and especially about his graduating class. He attended every class reunion and even had the responsibility of organizing the fortieth in 1980 and the fiftieth in 1990. He would talk about those who died, those who had grown fat, and those who appeared with new wives who were barely out of their teens. At the fortieth reunion he made name badges for all who attended. Each badge carried the doctor's picture taken from the yearbook in 1940. With a single glance, one's appearance in 1940 could be compared to that in 1980. Most were delighted and felt that this was a great conversation starter. Others were not amused at all. He did not repeat the idea at the fiftieth reunion.

Pepper developed wanderlust in medical school as many people do. He went to Kansas City to do his rotating internship at the University of Kansas Hospitals. He met and fell in love with a student nurse, Elizabeth Jean Weaver, better known as Betty. True love required patience because Betty had another year of nursing school and Pepper had signed to start a residency in internal medicine in Galveston beginning July 1941. Their separation was painful but both felt it was necessary for their careers. World history would intervene.

In Europe, Hitler had united the German-speaking peoples and had begun his war of territorial acquisition. In December 1941, while Pepper worked long and hard taking care of patients with cirrhosis and sickle cell anemia, the Japanese launched the infamous surprise attack on Pearl Harbor. Pepper was commissioned a Lt. Commander in the United States Navy Reserve Medical Corps March 23, 1942. Before departing for his assignment in the South Pacific, he returned to Kansas City to marry Betty on April 22. Betty went on to finish training for her R.N. degree, and Pepper reported for duty on the seaplane tender and troop transport, the *USS Chandeleur*.

Pepper described those days as mostly tedious and boring. He held sick call daily for robust young men in vigorous good health. The most memorable event that he described to me was



Figure 2. The USS Chandeleur, AV-10, a seaplane tender, is the ship on which Pepper Jenkins was assigned during World War II in the South Pacific. He spent most of his time in the sick bay, which occupied the forward part of the second deck behind the locker for the anchor chains. (PHOTOGRAPH COURTESY OF GREGORY JENKINS, M.D.)

the time he had to do an emergency appendectomy. With the help of two very good medical corpsmen, he induced the anesthesia with open drop ether. He had one corpsman maintain the anesthesia while he and the other corpsman did the appendectomy. The sailor survived, got well, returned to duty, and inspired Pepper's interest in anesthesia and surgery. The newfound inspiration would have to wait because the *Chandeleur* was part of the Pacific Fleet under the command of Admiral Chester W. Nimitz.

The fleet was engaged in a series of pivotal naval battles and many island invasions. The *Chandeleur* participated in four of these invasions, the most famous of which were Guadalcanal

and Kwajalein. These seemingly unimportant islands in a vast ocean were defensive strongholds for the Japanese, and their capture was an important part of Admiral Nimitz's strategy. To bypass them would expose the flank and rear of the fleet to counterattack. The many thousands of casualties from the bloody invasions were cared for in field hospitals and hospital ships or were evacuated to Tripler Hospital in Hawaii. Although he remained on the ship for most of the war, Pepper went ashore and managed large numbers of wounded and dying marines in the two invasions mentioned above.

Pepper's South Pacific experience ended when he was assigned to the United States Naval Dispensary, Little Rock, Arkansas, July 31, 1944. Here he was reunited with Betty and was engaged in the care of the wives and children of service men. Finally, they could take an apartment and live together as man and wife, having already been married for three years. Their first child, Gregory, was born on July 31, 1945. Two more followed: Philip in 1947 and Christine in 1952. The Japanese surrendered in August, 1945, and World War II was over. Pepper remained in the Navy until March, 1946. He continued to care for military dependents but had time to think about his inclination to specialize in surgery.

He investigated programs and learned of the reputation being built by the Surgery Service at Parkland and the Surgery Department of Southwestern Medical School. In those days the institutions were separate. Dr. John V. Goode was chairman of the medical school's Department of Surgery, and Dr. William Lee Hudson was chief of Surgery at Parkland Hospital. Both institutions had a remarkable history. The hospital began as a sanatorium in the park land at the intersection of Oak Lawn and Maple Avenues in 1894. The sanatorium in the park land became known as Parkland Hospital. A more substantial and beautiful red brick building opened in 1928 and eventually the old wooden building was removed. In 1954 the hospital moved to a new building on Harry Hines Boulevard, was dedicated to citi-

zens of Dallas County who lost their lives in both great wars, and therefore became Parkland Memorial Hospital.



Figure 3. The Sanatorium in the Park Land provided comprehensive care for hospitalized patients from 1894 until it was replaced with a more permanent brick building in 1928. (PHOTOGRAPH COURTESY OF PARKLAND HOSPITAL)

The history of the medical school was even more fascinating. Chapman⁶ reports that in 1900 Dallas had two legitimate medical schools (schools with a formal curriculum), the University of Dallas and the Dallas Medical College. In addition, the city had at least eight proprietary medical schools operated by entrepreneurial practitioners where the student could “read medicine” for an unspecified period, assist the doctor with his practice, and eventually push away and establish his own practice. The next ten years witnessed the emergence of medical schools associated with Southern Methodist University, Southwestern University at Georgetown and Baylor University at Waco. The famous Flexner report of 1910 recommended that the only medical schools in Texas that were good enough to

survive were the University of Texas Medical Branch in Galveston and perhaps Baylor Medical College in Dallas, and by 1920 all had disappeared except these two. Baylor College of Medicine operated in Dallas with moderate success until 1943 when the oppressive tactics of the Board of Regents of Baylor University caused severe unrest in the faculty. To escape the unrest and to take advantage of the generous gifts of some benefactors, Baylor College of Medicine moved to Houston in 1943 in the midst of World War II. However, many of the faculty and students refused to move.

They organized under the leadership of Dr. Edward H. Cary, an ear, nose, and throat specialist, and chairman of the board of Southwestern Medical Foundation which was established in 1939. The foundation sought support from local philanthropists to establish and maintain Southwestern Medical College. Classes were held in surplus military barracks called "the shacks," behind Parkland Hospital. Dr. Goode described it best in the text of a surgical grand rounds he presented on November 15, 1980.³

"I can assure you our school did not slowly evolve or just happen; it burst on the scene in 1943. Its birth reminds me of the account of the birth of Athena, who is said to have burst fully-grown from the forehead of Zeus. ... Southwestern Medical College, as it was first called, came from the head of Dr. E.H. Cary, fully developed (we started with all four classes) and poorly armed, but ready to compete with the sixty-seven medical schools then existing in the United States.

The Parkland Board of Directors gave permission for the use of Parkland as a teaching hospital. Just eight days after Baylor announced its removal to Houston, Dr. Cary went to Chicago and obtained a temporary permit to form a medical school. Classes opened in July, and Southwestern graduated its first sixty-one doctors just nine months later.

I don't remember any mention as to whether or not Zeus had a headache after Athena's birth, but I can assure you that we had many colossal headaches with the opening of Southwestern Medical College! Space was always a problem in those early hard times. Classes were held in the shacks and a local junior high school. A makeshift library had to be improvised.

1944 to 1946 were critical years. We needed superstars, and we got them in Tinsley Harrison, Arthur Grollman, Mort Mason, Carl Moyer, Dr. Sulkin, Dr. Goth, and many others. These men were gamblers who saw opportunity, a chance to do their thing, and they elevated us to the major leagues.

In 1949, two blessed events occurred. First of all, the New York Academy of Medicine donated a boxcar full of books and manuscripts to form our library. Next, the Texas legislature proposed the creation of a new state-supported medical school. Many cities vied for this plum, but we got it and became Southwestern Medical School of The University of Texas. This assured us of unlimited possibilities. From this point, we were on an upward spiral.”

Pepper was a man of courage (a gambler by Dr. Goode’s criteria) who saw an opportunity to learn and develop in an institution that was destined for greatness, and he came to Dallas to start his surgery residency in July 1946. In his own words, he describes what he found at Parkland in the next chapter with three important omissions, one professional and two personal.

The first omission was the state of the Anesthesia Service at Parkland when he arrived. He describes the state of the Surgery Service but does not say much about anesthesia. How did the Anesthesia Service develop at Parkland before Pepper came? Charles Tandy, in an address to the Dallas County Anesthesiology Society, March 13, 1993, developed the history of anesthesia in Dallas County in greater detail.⁴

“In 1841, John Neeley Bryan traded his ten-dollar horse to one of the heroes of the Battle of San Jacinto for a league of land on the east bank of the Trinity River and this became Dallas, Texas. Medical practice was primitive and frequently violent. In 1843, Dr. James Talbert, a young physician who had just moved to town was called to deliver a baby in the nearby village of McKinney. Before he arrived for the delivery, he was killed and scalped by a raiding band of Indians.

In 1850, the first legitimately educated physician came to Dallas. Ten years later, he recruited a young associate named Rufus Whitis to be the first anesthetist. Rufus gave out calling cards, which read “Physician in Charge of Chloroform Application.” By 1918, Dr. John Worley

had become the local anesthetist. He always carried a little black bag and wore a black frock coat. He joined forces with Dr. James Poe to establish a school for nurse anesthetists at Baylor Hospital in 1925. Ruby Daniel, a student who had completed two years at Baylor Medical School decided to drop out and take three months of training with Dr. Poe. She became the first anesthetist at Parkland Hospital. Ruby was a persuasive woman who convinced many of the operating room nurses at Parkland to become nurse anesthetists. Some of these became important faculty members in the school at Baylor. After several years, Dr. Daniel returned to complete medical school and subsequently became an ophthalmologist. Anesthesia at Parkland was covered by a dedicated group of nurse anesthetists and a series of transient doctors and near-doctors.”

We gain more insight from remarks, which Pepper made at the celebration of the twenty-fifth anniversary of the Anesthesiology Department, May 24, 1974.⁵

“In 1946, at the close of World War II, I was a surgical resident at Parkland Hospital, chief of the old Surgery B service under Drs. Lee Hudson, Carl A. Moyer, and Samuel Weaver. There were seven nurse anesthetists at Parkland, but no physician anesthesiologists and no teaching of anesthesiology in the medical school. In fact, there was only one board-certified anesthesiologist in Dallas at the time. Dr. Earl Wier was chief of the anesthesia service at Baylor Hospital, taking responsibility for a large training program for nurses. In addition, he had two residents — Ray G. Stark and Joe B. Wood.”

So anesthesia at Parkland Hospital was given by nurse anesthetists when Pepper arrived. Pepper admired their dedication and the professionalism of their work. He told many stories about his work with the nurses. Dorothy Dodson, who was better known as Dottie, regularly worked the late shift from 11p.m. to 7a.m. She was expert in the management of the victims of the “knife and gun club.” She was a miserly soul, seldom spending anything and always seeking new opportunities to make money. Pepper said that when she finished her night’s work at 7 a.m., she delivered newspapers door-to-door on her way home.



Figure 4. The nurse anesthetists at Parkland Hospital in 1948.
(PHOTOGRAPH FROM DEPARTMENTAL FILES.)

Although Pepper admired these nurses, his attitudes about nurse anesthetists changed in later years. He became an outspoken opponent of the American Association of Nurse Anesthetists and of the exploitation practiced by some anesthesiologists who hired “stables” of nurse anesthetists in order to exclude competition. Pepper fervently believed that the program should train physician anesthesiologists as long as sufficient numbers were available to be trained. Accordingly, the last remaining nurse anesthetist at Parkland retired in 1963, and the service was provided by physicians or medical students until Dr. Landers introduced the anesthesia care team in 1995.

The second omission is the source of Pepper’s pursuit of anesthesiology. I have mentioned that the emergency shipboard appendectomy inspired his residency in surgery and an interest in anesthesiology. That interest was to grow because of the influence of his mentors, Drs. Lee Hudson and Carl Moyer. Pepper provided us with some insight in his remarks at the twenty-fifth anniversary celebration.⁵

“With so few physicians in its practice, there was little inspiration for one to become an anesthesiologist at that time, since it was a new specialty and had developed among physicians only during the exigencies of the war years.

Like many surgical residents, I thought my patients had few if any surgical complications, and I voiced the opinion that most problems were due to anesthesia. Dr. Moyer challenged this defensive view and offered me an opportunity to gain experience in anesthesia before finishing the projected surgical training.”

Moyer’s influence in Pepper’s choice of careers was powerful. Pepper describes more of their interactions in the next chapter. Moyer not only selected his specialty but also the venue for his training. He insisted that Pepper go to the Massachusetts General Hospital for a residency in anesthesiology. One might think that Dr. Moyer was trying to rid his program of an unsatisfactory resident but the opposite was the truth. Drs. Moyer and Hudson recognized that progress in surgery would be linked to close teamwork with anesthesiology. Both felt that “Pepper” was



Figure 5. Pepper and Betty Jenkins on vacation 1975. (PHOTOGRAPH COURTESY OF CHRISTIE JENKINS.)

an excellent resident and had noticed that he had a strong interest in anesthesiology. They seized the opportunity to foster the training of a cooperative physician who would return to establish a department and training program in anesthesiology at Southwestern. Such was their ability to shape the future and influence the lives of their protégés.

Massachusetts General Hospital seemed a legitimate choice because Dr. Moyer had spent a year there as a research fellow before he joined the Surgery Department of the University of Michigan. In addition, Massachusetts General Hospital was the site of the first public demonstration of inhalation anesthesia one hundred years earlier in 1846. Already announcements of the grand centennial celebration of Ether Day were arriving in the mail. The preliminary program showed that Dr. Carl Moyer would be an invited speaker on the “Effects of Operation and Anesthesia on Renal Excretion of Water and Salt.” Anesthesia and Massachusetts General Hospital were on every doctor’s mind.

Pepper’s remarks at the twenty-fifth anniversary continue to reveal his feelings about anesthesiology:

“In less than six months as an anesthesiology resident at the Massachusetts General Hospital, I realized that anesthesia, despite its value for patient comfort and safety, transgressed upon the patient’s inherent normal physiology so severely as to have a great potential for morbidity and mortality. Also came the realization that medicine needed many more physicians dedicated to teaching anesthesiology, since about one in each fifteen of our population is anesthetized each year.”

The third omission, a personal one, relates to his initial contact with Margaret McDermott, a fascinating story that greatly influences subsequent development in the department. Pepper, Betty, and their infant son, Greg, arrived in Dallas in the summer heat of July 1946. They were a small part of a large crowd of recently discharged military personnel who were looking for opportunity in the big city. Because of the war, no new homes or apartments had been built since 1940. The housing shortage was extreme. After a few days in a motel, Pepper contacted an old

friend, a journalist who spent long periods out of town on assignment developing new stories. The journalist lived in a guesthouse, which he leased from a prominent lady named Grace Milam. With her permission, the journalist sublet the two-room guesthouse to the Jenkinses. The doctor with his charming young family were an instant hit with Mrs. Milam and with her daughter Margaret who was also a journalist and had recently returned from an extensive assignment to India for *The Dallas Times Herald*. Margaret Milam shared coffee on the terrace daily with Betty and enjoyed watching baby Greg grow and develop. Margaret would marry Eugene McDermott in 1952. Mr. McDermott was a founder of Texas Instruments. The powerful friendship, which blossomed in the backyard of Grace Milam's house, would subsequently develop into generous philanthropic support of many activities of the department, the medical school, and the city. (See pages 47 to 63.)

Now we have the background needed to understand pages 20 to 33, which were written by Dr. Jenkins.



*Figure 6. M.T. "Pepper" Jenkins.
M.D. (PHOTOGRAPH FROM
DEPARTMENTAL FILES.)*



Figure 7. Parkland Hospital was in use from 1928 until 1954. It has recently received the Legacy Project 99 Award by the American Institute of Architects and will be restored for various county offices. (PHOTOGRAPH COURTESY OF PARKLAND MEMORIAL HOSPITAL.)

2. THE DIVISION BECOMES A DEPARTMENT, 1946-1955¹

by

M.T. "PEPPER" JENKINS, M.D.

McDERMOTT PROFESSOR AND CHAIRMAN EMERITUS

During World War II the integrity of the Surgical Division of Parkland Hospital was maintained almost single-handedly by Dr. Lee Hudson, a particularly strong and dedicated member of the private practice community. He saw Parkland as the hospital for the indigent, not for private patients whom so many physicians in Dallas were trying to get into Parkland because the number of private beds in the city was scarce in those times. Dr. Hudson saw Parkland, also, as the proper training ground for residents in surgery, and he maintained a tight hold on the appointments to the service, both staff and residents, exercising an active supervisory control.

As evidence of his position in his community, Dr. Hudson is the only physician who has been president of the Dallas County Medical Society twice. He was elected president in 1939, when the medical community recognized many developments which impinged on the practice of medicine — for example, the formation of Blue Cross-Blue Shield, headquartered in Dallas and predicted to be an insidious forerunner of national health insurance. The County Medical Society provided a natural progression to the office of president, since it selected a president-elect each year. In 1939, however, the collective wisdom of the society asked the president-elect to remain in that position for an

¹Dr. Jenkins intended to write the whole history of the department, but he died without getting beyond 1955. This chapter was written for and published in *Surgery, the First Fifty Years* by R. F. Garvey, C. R. Baxter, M. T. Jenkins, and R. N. McClellan, published by The University of Texas Southwestern Medical Center in 1993. He chose to write it in the third person as if he were a detached witness to history, but he revealed his personal knowledge of his role and the roles of his mentors in the development of the division and ultimately the department of anesthesiology.

other year so that Dr. Hudson could be reelected as president. In addition, Dr. Hudson was so respected by the Dallas county government that he was appointed to the Board of Managers at Parkland, the only physician accorded this responsibility and, yes perhaps, honor.

During the World War II years, the appointments to the house staff in surgery were for short periods of time because all appointees were subject to active military duty and could not spend more than one year in surgical training following an internship. This was still true in 1946 several months after the close of the war when veterans were competing for residency slots and were determined never again to be general duty medical officers.

At Parkland in 1946, there were two surgical services with the unspectacular names of Surgery A and Surgery B. These two services rotated nights and weekends on call, and they both provided staffing service for the surgical outpatient clinics and to the allocation clinic, a clinic which served a triage role in assigning patients to the various clinics when it was not obvious to the clinic registrar where patients with indefinite complaints should be assigned. In addition, Surgery B took night call every other night for the Gynecology service and for emergencies while Surgery A responded to calls in the Emergency Room every other night for ENT and Ophthalmology, in addition to their own surgical and trauma patients. Surgery B had the more onerous of the additional assignments, since it accepted and admitted patients who had sustained incomplete spontaneous abortions. Before completing the abortion with a dilation and curettement, it was necessary to follow the absolute dictate of the chairman of OB/GYN, Dr. William F. Mengert, who decreed that patients with an incomplete abortion should have three days of normal temperature before having a dilatation and curettage. Consequently, Surgery B had a number of beds filled by these patients. Occasionally a gynecological patient was admitted who became a good candidate for hysterectomy, so the Surgery B house staff gained in this regard even though it occurred infrequently.

In 1946 the Surgery A senior resident was Dr. William McCook from Shreveport, Louisiana, and the junior resident was Dr. Nathan Tobolowsky. Permanent senior surgical staff were Drs. Lee Hudson and Charles Bussey. Three other surgical staff from the community, Drs. William N. Fuqua, Dale Austin, and Frank Kidd, took night call with the house staff. The senior resident for Surgery B was Dr. Reuben Harris from Birmingham, Alabama, and the junior resident was Dr. M.T. "Pepper" Jenkins. Senior staff surgeons were Drs. Sam Weaver and Walton Cochran. Community surgeons in private practice who were assigned to take night call included Drs. Robert S. Sparkman, Hudson Dunlap, and Manning B. Shannon.

Dr. Hudson made it a strict rule that the surgical house staff on call at night would notify the responsible surgical staff member each night of all patients as they were seen. Further, he required that the surgical staff be present for each of the operations done by the house staff at night. Needless to say, this was very demanding for them, and it meant that at least every sixth night each member of the surgical staff would be up all night supervising, assisting, and consulting with the house staff. Dr. Hudson thought this would be a great way for the young surgeons just returning from military duty to reenter practice.

Note that Dr. John Vivian Goode was not listed as a member of the senior consulting staff at Parkland. Despite his busy private practice, he served as chairman of Surgery for Southwestern Medical College. Likewise, Dr. Hudson's position in the medical college was not clearly specified, or at least his duties were not obvious. He, too, had a large private practice.

In June 1946, a truly spectacular luminary in the surgical field appeared on the full-time medical school staff, immediately captured the intense admiration of the house staff in both medicine and surgery, and also was greatly acclaimed by the private practicing community. This was Dr. Carl A. Moyer, fresh from the University of Michigan School of Medicine, where he had revised some of the dictums of his chief, Dr. Frederick Collier,



Figure 8. Carl A. Moyer, M.D., Research Professor of Surgery 1946-1951. (PHOTOGRAPH COURTESY OF DEPARTMENT OF SURGERY UNIVERSITY OF TEXAS SOUTHWESTERN MEDICAL SCHOOL.)

concerning fluid balance and intraoperative fluid requirements. Nevertheless, Dr. Moyer was still imbued with the thought, derived from his previous clinical investigation, that under circumstances of anesthesia and operation the human kidney had an inability to excrete salt, or in other words, had a renal intolerance to salt. This attitude was changed in 1950, as noted below. Dr. Moyer was greeted cordially and enthusiastically by Dr. Hudson, who played an important role in recruiting him to Dallas.

In the fall of 1946, Drs. Hudson and Moyer approached Dr. M.T. “Pepper” Jenkins, junior resident on Surgery B who was destined to become senior resident on January 1, and asked him

to consider setting up a Division of Anesthesiology in the Department of Surgery. Although Dr. Jenkins had some experience with anesthesia during his four-year stint on active duty with the U.S. Navy, he was not immediately overcome with joy at the prospect of going away for training in anesthesiology at the Massachusetts General Hospital, which Dr. Moyer, a former staff member there in anesthesiology, proposed to him. The plans outlined for Dr. Jenkins were for him to serve as senior resident on Surgery B for six months, then go to the Massachusetts General Hospital and spend six months to two years, and then return to Dallas and organize anesthesiology as a division of Surgery. Dr. Moyer proposed that Dr. Jenkins could return to his surgical training after the division became functional and could then fulfill another two years in surgery at Parkland, a program which had not yet been fully developed and approved by the Residency Review Committee (or whatever was the accrediting agency at that time) but which was in the offing.

The admiration that Dr. Jenkins held for Drs. Hudson and Moyer was great, as was evidenced by all of the Parkland house staff. This admiration was intensified when Dr. Jenkins observed that Dr. Moyer scrambled out of an operation when a nurse anesthetist was having difficulties with a patient. Dr. Moyer took over the anesthesia, bronchoscope the patient, put in an endotracheal tube where one had not been present before, and turned it back over to the nurse anesthetist before scrubbing back into the operation. Dr. Moyer said to Dr. Jenkins, "Could you do that? You can after you spend time at the Mass. General."

Dr. Jenkins did go to the Massachusetts General Hospital, taking a cut in monthly income from \$50 to \$41, plus a monthly allotment from the GI Education Bill, which still did not meet the expenses of moving to Boston, a city his wife designated as Deep-Freeze-on-the-Charles.

Dr. Jenkins returned from Massachusetts General Hospital in September 1948, when anesthesia ceased being designated as a service of the hospital and became the Anesthesiology Divi-

sion of the Department of Surgery, Southwestern Medical College. At this time, there were seven nurse anesthetists in the department. Parkland was a hospital of 415 beds and had the only Isolation Division in Dallas. There was no recovery room. In fact, there were no recovery rooms in any hospitals in Dallas or, for that matter, west of the Mississippi River, since the postanesthesia recovery room was a new concept.

Among those welcoming Dr. Jenkins to a new role in Parkland was Ms. Faye Pannell, director of the Nursing Services. She responded positively and enthusiastically to the proposal by Dr. Jenkins that a postanesthesia recovery room be established. Together, they decided to remove the partition between the white and colored (sic) waiting rooms just outside the operating room suite and convert the enlarged area to a recovery room large enough for five beds. The doors to the operating suite were moved farther down the hallway beyond the new recovery room to separate this area from general traffic and from those waiting outside the operating rooms.



Figure 9. Lurlene Lamb, nurse in charge of the recovery room since it opened in 1949, attends a patient with Dr. Jenkins in 1965.

(PHOTOGRAPH FROM A.H. GIESECKE'S FILES.)

The new recovery room opened on January 2, 1949, with one nurse, Mrs. Bobby (Lurlene) Lamb, who remained as the nurse in charge of the recovery room as it expanded in size and numbers of complement until she retired in 1988. It is conjectured that Mrs. Lamb saved as many lives as anyone else did at Parkland. She was very efficient, a good supervisor of student nurses on their rotations to the recovery room, and she was always pleasant and calm, even under the most harassing circumstances. Like a clock during a storm, she worked steadily and efficiently despite turmoil about her. Older nurses who had been out of the hospital environment for some time were sought out and employed by Parkland. Ms. Pannell assigned them to the recovery room for at least one month each to refurbish their old skills and teach them new ones.

At this time, the Division of Anesthesiology was given the responsibility of developing the oxygen therapy service for the hospital. This was an interesting period during which, with Dr. Moyer's help, we constructed a magnetic oxygen analyzer, similar to the Beckman devised by Dr. Linus Pauling which came on the scene some years later.

Dr. Moyer provided great help to the newly established Division of Anesthesiology. He assigned two surgery residents for four months each to Anesthesiology and two interns for six weeks each. In addition, senior medical students elected clerkships for three weeks. Adding these to the seven nurse anesthetists who were already in the hospital environment provided sufficient, although largely unskilled, hands and required the chief to supervise all five operating rooms.

There was a gradual attrition of the nurse anesthetists so that by 1952, when the application for an accredited residency was approved, the patient load in anesthesia was being covered primarily by these members of the house staff. As there were only two nurse anesthetists remaining, one of the them, Miss Dottie Dodson, worked a twelve-hour shift, six nights of the week. Surgical house officers consistently reported Dottie as

the most cooperative member of the Anesthesia Division. It was reported, though probably apocryphal, that Dottie threw a paper route on the way home every morning. Dr. Jenkins was heavily engrossed in patient care during this time, for he took call every Friday night. In addition, Ms. Dodson called him about nearly every emergency patient on the other six nights of the week. This continued until an additional staff member, Dr. Robert B. Dodd, also from Massachusetts General Hospital, joined the staff and alternated nights to receive telephone calls. (He later became chairman of Anesthesiology at the University of Maryland for twelve years and the chairman at Washington University School of Medicine for another period of time before retiring to Springfield, Illinois, where somehow he later became recruited as chairman of the department at Southern Illinois University School of Medicine.)

Pungent memories of Parkland’s operating suite: There were five operating rooms on the second floor of Parkland just above



Figure 10. Dr. Bob Capps, M.D. and Dottie Dobson, CRNA, discuss a patient in the break room in the surgical suite at the old Parkland Hospital, 1954. (PHOTOGRAPH FROM DR. M.T. JENKINS’S FILES.)

the kitchen from which the pervasive odors of cabbage cooking often upset the surgeons greatly, causing them to look for unscheduled iatrogenic perforations of the bowel. There were two delivery rooms, but Dr. William F. Mengert chose to have no anesthesia coverage for the delivery rooms stating, "Obstetricians must be completely self-sufficient and should not have to depend upon a chloroformist." Nevertheless, most nurses and many housestaff wives chose Parkland for their accouchement, a free service provided by the hospital with an anesthesiologist (with none other than the chief—who else?) in attendance. There was no air-conditioning in the operating suite, and large fans with sparking relays sat in open windows just above a gravel driveway next to the kitchen. The fans blew dust into the ORs and across the nonconductive floors. Shoes weren't conductive either. The primary agents in use were diethyl ether and cyclopropane, both highly flammable and explosive, and without the use of relaxants. For good reasons, the surgeons often referred to their experiences as "operating on horseback in a West Texas dust storm."

In September 1949, Southwestern Medical College became affiliated with The University of Texas and was called Southwestern Medical School of the University of Texas. What's in a name? The school started as Southwestern Medical College and this name applied from 1943 to 1949. Then it became Southwestern Medical School of The University of Texas. Later, this was changed to The University of Texas Southwestern Medical School, and then sometime later the Board of Regents decreed that it would be The University of Texas (Southwestern) Medical School of Dallas. It was obvious that the next name change would involve dropping "Southwestern" from the title. This created considerable anguish among the alumni, who viewed its deletion as tantamount to abolition of their alma mater and invalidation of their M.D. certificates. Then the Medical School became part of The University of Texas Health Science Center at Dallas, which now has become The University of Texas Southwestern Medical Center.

The name for the hospital has undergone changes, too. Its original name was the Park Lands Hospital, circa 1881, built on city park lands a few miles north of the city. It became Parkland Hospital in about 1928 when a wooden structure with wide porches was replaced at the same location by a handsome brick and mortar building. Then, during the construction period for the new hospital on Harry Hines Boulevard, the proposed name was Memorial Hospital, and that name stuck during the period 1952-1954. Again, the alumni of residents and interns and nurses from Parkland Hospital were incensed that their alma mater was about to be abolished and petitioned the administration to restore the name Parkland. Dr. Jenkins led the crusade with many letters to restore the name Parkland. So, it has been Parkland Memorial Hospital since 1954 with the word *Memorial* referring to those in the military from Dallas who lost their lives in two World Wars.



Figure 11. Drs. Nellie R. Luhn and Mary Boothe Steward, residents in anesthesiology pose with Pepper Jenkins in 1952. (PHOTOGRAPH FROM DR. M.T. JENKINS' FILES.)

In 1950 the chief of Anesthesiology acquired (was given) responsibility for the respiratory problems of poliomyelitis patients. At one time he and Dr. Nellie R. Luhn had forty-eight patients either in iron lungs (hyperthermia boxes in July and August with no air conditioning) or, when past the acute phase, on rocking beds. Parkland had the only isolation ward in Dallas; therefore, all polio patients were brought there. The years 1950-1953 were grim and discouraging, brightened only by three events.

- Texas Instruments Inc. became interested in our work with polio patients, and their engineers designed and built special equipment for respiratory studies, such as the pneumatograph.

- The Bennett IPPB apparatus, designed by Dr. John B. Dillion, chief of Anesthesiology at Los Angeles County Hospital, burst on the scene in 1952 and made artificial ventilation and ease of nursing care possible for a limited number of paralyzed patients. (Limited here, because the Bennett IPPB apparatus cost \$415, and the hospital administration balked at purchasing more than one per year).

- Dr. William F. Miller, a pulmonologist, joined the Internal Medicine staff in 1953 and accepted responsibility with the gratitude of all concerned for the ventilatory problems of patients outside the operating rooms and recovery room. Also, Dr. Miller was willing to take over the Oxygen Therapy Service. He had no argument from Anesthesiology.

In 1951 after Dr. Bob Dodd joined the staff, the residency program in Anesthesiology was provisionally approved by the American Board of Anesthesiology and by the AMA Council on Medical Education and Hospitals. Needing a pediatric affiliation for full accreditation, Parkland Hospital became affiliated with Children's Medical Center for its anesthesiology program in August 1953. Initially, the teaching staff at Children's Medical Center was Dr. Nellie R. Luhn and one resident at a time.

In September, 1954, Parkland Hospital moved from buildings on Maple and Oak Lawn Avenues to a new structure on Harry Hines Boulevard. The new hospital had ten operating rooms and four delivery rooms, all air conditioned, although no

other patient areas were cooled. The first operation in the new hospital was a vaginal hysterectomy on a young patient with tetanus after a criminal (sic) abortion. The operation was performed with great flourish by Dr. Mengert, who was anxious to be the first to spill blood on the new operating floors.

Dr. Mengert somehow overlooked notifying the relatives that this patient, if she survived tetanus, could have no subsequent pregnancies. Based on his own experience with tetanus patients, Dr. Jenkins talked at length with the family to explain the serious aspects of the disease, and Dr. Mengert's appraisal that a simple D&C would not remove the toxin-secreting organisms of *clostridium tetani*, nor would the antibiotics penicillin and tetracycline be effective against the organisms protected in pools of exudate or in masses of necrotic tissue within the uterus. Even the most skeptical relatives came to accept this explanation as they watched the young patient finally recover after three weeks of intensive treatment.

From 1951 to 1965, Drs. Jenkins and Luhn treated ninety-six tetanus patients (and one rabies patient who was first mistakenly diagnosed as tetanus), maintaining them in the recovery room at Parkland or at Children's Medical Center. (There were no ICUs during that period). The overall mortality rate reported for the first sixty-two patients was 13 percent compared with the national mortality rate of 40 percent.

In 1950, after he had worked cooperatively and successfully to have Southwestern Medical College incorporated into the University of Texas System, Dr. Moyer became dean of the medical school and remained as head of Surgery at Parkland, a post he had taken after Dr. Lee Hudson had relinquished it in Dr. Moyer's favor. For many reasons, Dr. Moyer became disenchanted with the deanship, probably, as many thought, because it dealt almost entirely with “small piddling minutiae,” which were irritating but demanded a considerable expenditure of time and energy. He was prepared to grapple with challenging problems. Consequently, Dr. Moyer left his post as dean in 1952 and

took up the position of professor and chairman of Surgery at Washington University in St. Louis, a position vacated by retirement of the eminent Dr. Evarts Graham, who had tried unsuccessfully several years before to recruit Dr. Moyer to Washington University as chairman of Anesthesiology. For a brief time after Dr Moyer's departure and before Dr. Ben J. Wilson was appointed chairman of Surgery, Dr. Jenkins was the senior member of the Surgery Department, having been elevated to the post of professor in 1951.

With five full-time staff members and seven residents in Anesthesiology in 1954, and with the support of Dr. Wilson, the chairman of Surgery, Dr. Jenkins applied to the medical school for departmental status. Dean George Aagaard acted favorably on the request by referring it to the Faculty Council with a recommendation that Anesthesiology be made a separate department. Departmental status became effective in September 1955 with the approval of Dr. Aagaard's successor, Dr. A. J. Gill. Since 1955 the Departments of Anesthesiology and Surgery have worked together with the common purpose of providing the best possible service and care to patients, just as they had always done when their relationship was a division to its department.

3. COPERNICUS REVISITED: THE RINGER'S LACTATE STORY

*Finally we shall place the Sun himself
at the center of the Universe.*

— Nicholas Copernicus, 1543

The inspiration to compare Pepper Jenkins to Copernicus belongs to Dr. Ed Johnson, Alumnus Professor and vice chairman of Anesthesiology and Pain Management at The University of Texas Southwestern Medical School. The analogy may seem pretentious at first, but gathers validity as one ponders the subject more deeply. Before 1532, scholars and theologians thought that all other heavenly bodies rotated around the earth. Copernicus, who was educated as a mathematician and a medical doctor, made precise observations and calculations and proposed that the sun was the center of our solar system and the earth along with the other planets rotated about the sun. This innovative proposal changed forever the way we think about the universe.

Before 1950, surgeons and physiologists felt that salt solutions were contraindicated in the perioperative period. The surgical patient was said to be intolerant of salt. Anesthetized patients were given small amounts of D5W and, if blood loss was excessive, they were given transfusions of whole blood from the newly developed blood banks. Pepper Jenkins and his colleagues proposed that balanced salt solutions (Ringer's Lactate in those days) are an important part of the fluid resuscitation. Their revolutionary proposal changed forever the way that physicians regarded fluid therapy in surgical patients.

Therapy with balanced salt solution in a surgical patient is arguably the most important development to ever come out of Southwestern Medical School. Pepper studied and published the history of fluid therapy in surgical patients.⁷ He divided the history into five epochs or developments, each of which initiated a



Figure 12. Pepper provides anesthesia for rigid bronchoscopy at Children's Hospital, circa 1952. (PHOTOGRAPH COURTESY OF CHRISTIE JENKINS.)

significant change in the clinical approach to therapy. Four of these are in the remote past: Harvey's description of the circulation of the blood (1628), Christopher Wren's injection of drugs into the veins of people (1657), Lister's germ theory of disease (1875), and Claude Bernard's milieu internus or "that bit of primeval sea within us" (1879). The fifth epoch was the innovative use of balanced salt solutions in the surgical patient, which I have always attributed to Pepper but which he himself willingly shared with his mentor, Dr. Carl Moyer, and his colleagues, Drs. G. Tom Shires, Ben Wilson, James Carrico, and Charles Baxter.

THE SITUATION BEFORE 1950

The traditional practice before 1950 was to withhold any salt-containing solution during surgery and for forty-eight hours

postoperatively. The rationale for this practice is found in research done by Dr. Moyer at Michigan and his mentor, Dr. F. A. Coller. The recently introduced flame photometer made measurements of sodium and potassium in body fluids possible. Physiologists had determined the sodium concentration in blood and urine and had described a precise balance. A healthy volunteer who was given a liter of normal saline would quickly excrete all of the water and salt in the urine and would remain in balance. Dr. Coller observed in postoperative patients that at least 50% of the sodium and water from a liter of normal saline was not excreted in the urine, but rather was retained in the body. The reduced sodium excretion (sodium retention) was thought to be an intolerance to salt; therefore, he recommended that salt should not be given to the surgical patient.⁸ Dr. Moyer found that anesthesia decreased glomerular filtration rate and reduced both the quantity and concentration of sodium, chloride, and potassium in the urine. The addition of surgery to anesthesia does not affect the magnitude of the changes, which do not stop at the end of anesthesia but rather persist for three to twelve days. He presented this work in the form of a lecture at the centennial celebration of the first public demonstration of anesthesia at the Massachusetts General Hospital in October 1946, and subsequently published his findings in the *Southern Surgeon*.⁹ He also recommended that salt solutions be withheld from surgical patients.

Dr. Moyer later reversed his opinion about salt solutions and publicly admitted that although his data published in previous years were correct, his interpretation of the data was false, and that his recommendations based on that interpretation were wrong. Surgical patients retained sodium, not because they were intolerant of salt, but rather because they formed an acute sequestered edema space. Patients needed balanced salt solutions to replace the deficit created because of the internal sequestration of fluid into the new edema space. Pepper wrote:

It seems quite appropriate at this point to praise a remarkable man, Carl A. Moyer, M.D. (1908-1970), as a giant among physicians in an era of outstanding men and women in medicine. He was a stimulating and provocative teacher of great integrity. It must not have been easy for him to reverse published opinions for which he had received considerable recognition and acclaim. His earlier influence was evident as visiting surgeons, mindful of Moyer and Coller's earlier admonitions, were appalled by the volume of balanced salt solutions being administered during anesthesia and operation at Parkland Memorial Hospital in the 1950s.

THE TURNING POINT, 1950

Landsteiner described the human blood types in 1901, enabling surgeons to safely transfuse blood from one human to another with a compatible blood type. This new lifesaving technology had limited clinical application until the first blood bank opened at the Cook County Hospital in Chicago. Transfusion therapy grew rapidly and was common practice in the management of wounded military personnel in World War II, so Pepper was very familiar with blood transfusions and the various reactions to blood when he established the Division of Anesthesiology at Parkland Hospital in 1948.

Dallas has always had a reputation for violence, and Parkland Memorial Hospital has always had a reputation as a center of excellence in the management of the consequences of violence. Pepper had many stories about the gunshot and stab wounds that he cared for in those days. I remember his account of the patient who was brought to the operating room for exploration and debridement of six small-caliber gunshot wounds of his back. The patient confessed that he was "visiting" his favorite girlfriend when her jealous husband came home. The husband got his revolver and was chasing the patient around the dining room table firing one shot after another. "You know," the patient said, "if that SOB had had one more bullet, he would have tried to kill me." This patient survived but many did not. Pepper became concerned with the outcome of such patients. In his mind,

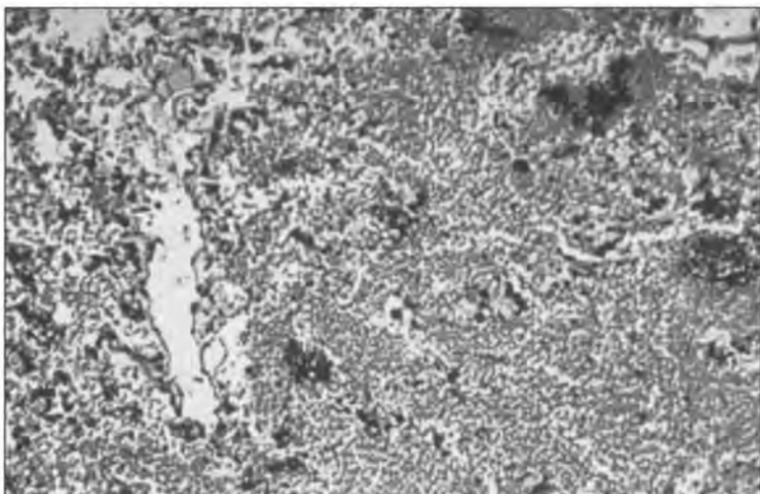


Figure 13. Microscopic appearance of the lung with congestive capillaries and alveoli filled with extravasated red blood cells. (PHOTOGRAPH FROM M.T. JENKINS'S FILES.)

he related the mortality to the number of transfusions that the patient received. The standard treatment for hemorrhagic shock from 1938 until 1950 was transfusion of whole blood to equal the volume lost and just enough D5W to keep the intravenous line open until more blood was needed.

In 1950, Pepper published a work that led him to propose the use of balanced salt solution in traumatic shock.¹⁰ The article reports eight patients with a presenting problem of shock, all of whom received rapid transfusions of whole blood. Three of these patients were the victims of trauma and the remainder had other acute surgical illnesses. The doctors became aware of progressive elevation of hematocrit, progressive loss of ventilatory compliance, and persistent ashen gray cyanosis in each of these patients. At autopsy the lungs were described grossly as "liver-lungs." Microscopic examination revealed alveolar cells still intact and pulmonary capillaries greatly distended. The pathological stigmata were consistent with congestive atelectasis.

CONGESTIVE ATELECTASIS—A COMPLICATION OF THE INTRAVENOUS INFUSION OF FLUIDS*

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PAUL BERT⁴ described congestive atelectasis as a phenomenon attending rapid decompression. Hurtado¹⁴ first described the microscopic appearance thereof in the lungs of guinea pigs. Fegler and Banister have performed well-controlled experimental studies upon its etiology relative to decompression. Their description of the gross and microscopic appearance of the lungs is as follows:

"Congestive atelectasis is the term chosen to describe a further lung change in which the microscopical picture showed maximal dilatation of the lung capillaries and complete exclusion of air from the alveolar spaces. Macroscopically the condition suggested gross hemorrhage. The areas affected were sharply limited and stood out from the surrounding tissue because of their liver-like, uniform, dark red coloration; thus they were readily distinguishable even when they co-existed with severe hyperemia in the same part of the lung. Closing the trachea before opening the chest intensified the contrast between hyperemia and congestive atelectasis. Inflation of the lung caused the congestive airless parts of the lung to disappear and a restoration of the normal pink coloration, which showed the condition to be congestive and not hemorrhagic. The areas affected by congestive atelectasis were not confined to a particular part of the lung surface nor to any one lobe. However, they seemed to develop more frequently around the hilum or on the dorsal surfaces."¹⁰

During the past nine years the gross and microscopic characteristics of congestive atelectasis in patients have been seen in more than 20 instances; and rapid decompression was not an etiologic factor in any case. The following case summaries present the clinical experience with the phenomenon during the last three years.

CASE SUMMARIES

Case I. — A. G. (Pkd. 38434), a 26-year-old male, was admitted August 9, 1946, with acute appendicitis and rupture of the appendix. Circulatory and respiratory status were satisfactory. Temperature, 99.6° F., pulse 100, blood pressure 120/70.

Appendectomy was performed, following anesthesia with pentothal sodium (0.5 Gm.), followed by cyclopropane and oxygen, and 160 units of "Intocostrin." Anesthesia was uncomplicated except for profuse sweating. No fluids were given intravenously before or during operation. Immediately postoperatively, a solution of 5 per cent dextrose in

*Read before the American Surgical Association, Colorado Springs, Colorado, April 19, 1950.

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Figure 14. Title page of the article which Pepper Jenkins claimed led to the revolutionary use of salt solutions in the surgical patient.

(PHOTOGRAPH FROM DEPARTMENTAL FILES.)

Pepper and his colleagues theorized that the fluid component of the transfused whole blood was being shifted out of the circulation into an acute sequestered edema space, concentrating the cellular elements and creating pulmonary congestion. He theorized that the concentrating effect could be minimized if the blood were diluted by simultaneous administration of a balanced salt solution, which mimicked extracellular fluid. The only such solution available at that time was lactated Ringer's solution, commonly known as Ringer's lactate.

In the laboratory, using anesthetized dogs bled into states of shock but without trauma, this same picture of congestive atelectasis was reproduced by the pressure reinfusion of shed blood. Further laboratory studies revealed an absolute increase in pulmonary red cell mass and decrease in pulmonary plasma volume. The research team had documented the clinical justification for the simultaneous administration of balanced salt solution with whole blood for traumatic hemorrhagic shock.

Sixteen years of precise laboratory and clinical research would be required to understand the pathophysiologic processes that explain the benefits of infusions of balanced salt solutions in hemorrhagic shock and trauma.¹¹ One of these studies was conducted in the early sixties when I was a resident in anesthesiology. The purpose of the study, which was organized by Dr. Shires, was to evaluate changes in plasma volume, red blood cell volume, and extracellular fluid volume in traumatized patients. The three volumes were measured with the “triple isotope” technique. Red cell volume was measured with tagged phosphate; plasma volume was measured with tagged albumin; and extracellular fluid was measured with tagged sodium sulfate. The isotopes were injected and measurements made when the traumatized patient arrived in the emergency room and two weeks later when the patient was ready for discharge. The measurements that were made when the patient was acutely traumatized were called “shock” volumes. These were compared with the measurements made when the wounds were healed, nutri-

tional status was normal, and the patient was considered to have recovered. The volumes after recovery were called "control." The pooled data showed that in the acutely injured state the patients had an 18 percent reduction in the red cell volume (363 ml), a 19.3 percent reduction in plasma volume (786 ml), and a 31 percent reduction in extracellular fluid volume (5200 ml). The conclusion was that traumatized patients in shock needed an average of five liters of balanced salt solution to replace the deficit of functional extracellular fluid.¹²

I managed the anesthesia for several of the patients in this study. I remember one in particular. He was a tall, handsome man in his mid-thirties in robust good health. Let's call him James. James was brought to the emergency room February 27, 1962, with a stab wound of the abdomen and marked hemoperitoneum. Because he was hypotensive, intoxicated, and incoherent, we had to take the history from his wife, who admitted that she had stabbed him. The isotopes were injected and samples taken. He was taken to the operating room for laparotomy, ligation of bleeders, and vigorous fluid therapy, but no transfusions. He recovered, and the isotopes were injected for the control volumes, which after comparison showed that when he was acutely injured his red cell volume was down 12 percent (210 ml), plasma volume was down 9 percent (324 ml), and extracellular fluid volume was down 25 percent (4795 ml).

He went home and was next seen April 8, 1962, when he was brought to the emergency room with a gunshot wound of the abdomen. This time he was unresponsive, profoundly hypotensive, and intoxicated. I could get no information from him and had to take the history from his wife, who said that she shot him. The isotopes were injected, samples taken, and James was taken directly to the operating room for massive fluid and blood therapy, laparotomy, splenectomy, nephrectomy, and other repairs. He received antibiotics postoperatively and recovered. Before discharge the control volumes were measured and compared to the shock volumes. In the acutely injured state, James

had a 23 percent (356 ml) reduction in red cell volume, a 29 percent (1115 ml) reduction in plasma volume and a whopping 56 percent (10310 ml) reduction in extracellular fluid. I remember giving 15 liters of balanced salt solution during the surgery. James did not go home this time; he hired a lawyer and divorced his wife. This story has two important morals. First, the traumatized patient who is hypotensive needs five to ten liters of balanced salt solution for resuscitation. Second, don't stay with an abusive spouse. Dr. Shires published his findings in the *Archives of Surgery*.¹³

Dr. Shires published evidence that the new edema space in purely hemorrhagic shock (that is, massive blood loss without significant tissue damage) was intracellular. This was done by inserting a microelectrode into a single muscle cell of an animal in hemorrhage shock. With this electrode he could measure alterations in the resting membrane potential and mathematically relate the alterations to changes in water content of the intracellular space. He proved that the new edema space of pure hemorrhage is intracellular, whereas the new edema space of tissue injury combined with hemorrhage is both extracellular and intracellular.

Both hemorrhagic and traumatic shock results in deficits of functional extracellular fluid. The deficits are greater than the amount of blood lost externally and are due to an internal redistribution or sequestration of healthy functional extracellular fluid to the nonfunctional edema. When this deficit is completely replaced, the patient has gained five to ten kilograms of weight. Replacing the deficit with balanced salt solution carries demonstrable benefits. Dogs bled into standardized irreversible shock survived at a much higher rate if balanced salt solutions were included as part of the resuscitation. Balanced salt solutions produce similar reductions in mortality in human traumatic shock.

Any therapy that appears to be moderately successful generates excessive enthusiasm in some of its protagonists, and the resuscitation of traumatic shock with balanced salt solution was

certainly no exception. Salt solutions were poured into patients in huge quantities, many times for good reasons and many times for no reason at all. The good reasons included lack of availability of blood or blood products or traumatic shock in a Jehovah's Witness who refused blood on religious grounds. Such patients bled and were infused with balanced salt solutions until their hematocrits slipped as low as 10 percent, and survived. Clinicians began to believe that massive resuscitation could be accomplished with balanced salt solutions alone without blood products. Their apparent success generated an interesting debate called the "crystalloid-colloid controversy."

The lectures of Dr. Charles W. Whitten compared the two sides of the controversy to the opposing camps of enemy armies: the "crystalloid camp" and the "colloid camp." The colloid camp believed that the deficit created by hemorrhage was solely intravascular and that treatment should consist of whole blood, albumin, dextran, gelatin or hetastarch solutions, all of which stayed inside the vessels. The "crystalloid camp" proposed that hemorrhage resulted in deficits in intravascular volume and interstitial volume. Therefore, therapy should primarily be balanced salt solutions.

Pepper believed that both camps were wrong. Therapy with colloids alone would restore the deficit of intravascular volume but do nothing for the deficit in interstitial volume. Therapy with balanced salt solution alone resulted in peripheral edema, dilution of red cells, plasma protein, and clotting factors. Pepper contended that the most rational and appropriate therapy was to begin with balanced salt solutions, as much as two to five liters, followed by packed red blood cells to restore oxygen transport and/or plasma proteins to maintain oncotic pressure. He never had many nice words for dextran or hetastarch, reserving these substances for vascular surgery and for Jehovah's Witnesses.

Four decades of basic and clinical research have provided a clear understanding of the pathophysiology of acute sequestered edema and have resolved most of the controversies. The con-

cepts are confusing, but the important lesson for the clinician is simple. Traumatic shock should be treated with a combination of balanced salt solutions or “crystalloids” and blood products or “colloids.” In 1999, balanced salt solutions are used routinely all over the world in the resuscitation of hemorrhaging patients⁸ and have probably saved millions of lives.

The crystalloid/colloid controversy is still with us but it no longer resembles a war with opposing armies. It is now more of an informed discussion of the best primary treatment for an individual patient. The most recent development is initial therapy with a combination of the two, commonly called hypertonic saline/dextran. This is a masterful compromise but would not win Pepper’s approval because he was opposed to hypertonic solutions on the basis that they withdraw fluid from the intracellular space, aggravating the deficit of intracellular fluid. Pepper compared such situations to the farmer who was precision-minded and did not want to guess the weight of his pig, so he rigged a balance with a bucket and a board, put the pig on one end, stacked rocks on the other end until the two ends balanced, and then guessed the weight of the rocks.

Burns have always been a significant part of anesthetic practice at Parkland. The hospital has been blessed with dedicated nurses and surgeons who are committed to excellence in the care of these miserably ill patients; these professionals are committed not only to care but also to innovative advances in care. The most important of these advances in my mind is fluid resuscitation. Cardiovascular alterations occur almost immediately following burn injury. Fluid and electrolytes shift in massive quantities from the intravascular and extracellular spaces into the cells in the injured area. The extent of these alterations is roughly proportional to the area and depth of the burn. Fluid therapy to prevent or treat shock must take into consideration the extent and depth of burn.

Since 1960 many formulas have been proposed as guides to initial fluid resuscitation of hypovolemic shock following ther-

mal injury. Most of these formulas recommend combinations of crystalloid and colloid solutions, but they vary widely on the ratio of one to the other and the rate of infusion. All formulas are empiric, based on clinical experience using differing clinical endpoints. The formula that evolved from the fertile mind of Dr. Charles Baxter is commonly called the "Parkland Formula."¹⁵ Dr. Baxter is a native Texan, who graduated from Southwestern Medical School in 1954, trained in surgery at Parkland Hospital, and served in the U.S. Army at the Institute for Surgical Research, Fort Sam Houston, Texas. He joined the faculty of Southwestern Medical School and directed the Parkland Burn Center from 1961 until 1981. He is a superbly enthusiastic lecturer and protagonist of balanced salt solutions for the treatment of shock, burns, and the prevention of renal failure. He has received many awards for his contributions in the field of burn therapy.

Numerous studies suggest that adequate volume and sodium ion are both critical to satisfactory resuscitation in hypovolemic burn shock. The Parkland Formula was devised to provide specific replacement of known deficits measured by simultaneous determinations of red cell volume, plasma volume, extracellular volume, and cardiac output. Urine output remains the most valuable guide to the adequacy of fluid therapy. Acute tubular necrosis is extremely rare in properly resuscitated patients. The Parkland Formula has been widely adopted and is currently the standard against which new formulas must be compared.

OUR THOUGHTS ARE CHANGED

No doubt exists that balanced salt solutions have become a valuable part of the clinical management of surgical patients whether they suffer from diseases or injuries. The credit for development of the concept must be shared by Shires, Moyer, Jenkins, Carrico, Baxter, and others.

In his later years, Pepper worried about his legacy. Would he be remembered as the founder of our Department of Anesthesiology and its chairman for thirty-four years? Would he be

remembered as a president of the Texas Society of Anesthesiologists and winner of its Founders Award? Would the American Society of Anesthesiologists remember that he was president, Rovenstine lecturer, and winner of its Distinguished Service Award? Would he be remembered as the first anesthesiologist in history to win the Distinguished Service Award of the American Medical Association? He feared that most would remember him as one of the doctors who unsuccessfully tried to save the assassinated president on November 22, 1963. He most wanted to be remembered as one of the men who revolutionized fluid therapy in the surgical patient. Pepper was there when the idea emerged and he deserves credit for being an effective evangelist for the balanced salt solution message throughout the world, changing forever our attitudes about fluid therapy in the surgical patient. He can in all humility be compared to Copernicus.

4. THE MARGARET MILAM McDERMOTT CHAIR IN ANESTHESIOLOGY

*There is a strange charm in the thoughts
of a good legacy, or the hopes of an es-
tate, which wondrously alleviates the
sorrow that men would otherwise feel
for the death of friends.*

— MIGUEL DE CERVANTES, 1547-1616

The generosity and influence of Eugene and Margaret Milam McDermott and their daughter, Mary McDermott Cook, have profoundly shaped the development of The University of Texas Southwestern Medical Center at Dallas through four decades. One cannot find a building or program at UT Southwestern that has not benefited from the McDermott family's devotion to the medical center. Two of the most visible contributions are the Eugene McDermott Academic Administration Building and Plaza. The administration building, a landmark twelve-level structure constructed in 1974, gives the campus a striking focal point and houses major administration offices and departments. These include the offices of the president and vice presidents of the medical center and the deans of the medical and graduate schools. The Eugene McDermott Plaza is the architectural center of the main campus.

Eugene and Margaret McDermott have generously supported anesthesiology research, education, and environment over the years. Mr. McDermott established the Margaret Milam McDermott Chair in Anesthesiology in 1966 in his wife's honor. At the time it was established, the McDermott Chair in Anesthesiology was UT Southwestern's second endowed chair in any field and was one of only four endowed chairs in anesthesiology in the world. The initial holder of the chair was the founding chairman of the anesthesiology department, Dr. M.T. "Pepper" Jenkins. The story of the McDermott's relationship and



Figure 15. McDermott tower at the left and McDermott Plaza form the heart of the campus and the venue for graduation ceremonies of the University of Texas Southwestern Medical Center. (PHOTOGRAPH COURTESY OF THE UNIVERSITY OF TEXAS SOUTHWESTERN MEDICAL CENTER.)

generosity to the school and Department of Anesthesiology is the purpose of this chapter.

I have previously described the origin of the friendship between Pepper’s family and Margaret Milam McDermott in 1946 (see Chapter I). Margaret Milam was a journalist, having attended Sweetbriar and The University of Texas at Austin. She was named a distinguished alumnus of U. T. Austin in 1978.

She began her career in journalism as society reporter for the *Dallas Times Herald* in 1938, and in a short time became the society editor. She began to write articles about World War II and emerged as a respected war correspondent, spending two years in India beginning in 1944. She met Pepper and Betty Jenkins and their infant son Greg when she returned from India in 1946 to find them living in her mother’s guest house. She enjoyed coffee and conversations with Betty on the terrace and watched baby Greg grow and learn new tricks. She advanced

her career as a correspondent by spending 1947 to 1949 in post-war Germany, and 1949-1951 in Japan. These were ideal assignments to develop and extend her interest in art. She was able to see beyond the rubble of war and appreciate the beauty of the art and architecture. Her refined good taste and interest in the quality of the environment would have a profound influence on the appearance of the Anesthesiology Department and the campus.



Figure 16. Margaret Milam McDermott is a generous benefactor to Southwestern Medical School and to its Department of Anesthesiology and Pain Management.

(PHOTOGRAPH FROM
DEPARTMENTAL FILES.)

Margaret married Eugene McDermott in 1952. Born in Brooklyn in 1899, Mr. McDermott was educated as a geophysicist at Stevens Institute of Technology and at Columbia University. He and J. C. Karchner became partners to develop an idea into an industry. Mr. Karchner's idea was to use the seismograph in oil exploration.

The seismograph was a mechanical instrument that could detect earthquakes, and scientists of that time believed that by

using the instrument earthquakes might be predicted and ultimately prevented. Mr. Karchner had been in the Navy during World War I, using sonar (reflected sound waves) to detect submarines. His idea was to drill a hole, bury a stick of dynamite, explode it, and measure the reflected shock waves with the seismograph. Because oil has a different density than shale, sand, or rock, the intensity of the reflected shock waves was different. A pool of oil could be located and its depth predicted. The process was named reflective seismology. The early trials were successful and the instruments were patented. In 1930, Mr. McDermott formed a partnership with Mr. Karchner and several others to form Geophysical Services Inc., or GSI, to manufacture and market the new technology. GSI became a petroleum industry leader, but it was the subsidiary electronics firm Texas Instruments (TI) that was to make history. Over the years, TI created the first silicon transistor (1954), the first integrated circuit (1958), the first single-chip microprocessor (1970), and

Figure 17. Eugene McDermott, founder of Texas Instruments Inc., believed in creative people more than machines. This philosophy guided his philanthropy in his later years. (PHOTOGRAPH FROM DEPARTMENTAL FILES.)



the first single-chip speech synthesizer (1978). Mr. McDermott was TI's first chairman of the board and continued as a director until his death in 1973.

Eugene McDermott's interest in the medical center began with his support of Dr. Philip Montgomery's research in cancer. Dr. Montgomery tells the story like this: Montgomery graduated valedictorian of his class from the Dallas Country Day School, which would later become St. Mark's School of Texas. The distinction was awarded to him by the chairman of the Board of Trustees, none other than Eugene McDermott. Montgomery then went to medical school in New York and trained in pathology in Boston. He returned to Dallas to join the faculty of the medical school and to begin a career-long investigation of cancer. He needed a new machine for his research and thought that Mr. McDermott might help him buy it. He made an elaborate well-reasoned justification for the grant to Mr. McDermott, but was refused. He bought the machine from other sources, and his research was so successful that a year later he needed an associate. Once again he went to Mr. McDermott to request a grant to support his associate, and this time his request was immediately approved. Dr. Montgomery was puzzled and asked, "I don't understand. Last year you said no and this year you said yes. What's the difference?" Mr. McDermott responded, "It's simple. I believe in people more than I believe in machines." That principle guided all of his future contributions to the medical center. In 1957 Mr. McDermott was elected to the Southwestern Medical Foundation Board of Trustees. He was named chairman of the Scholarship and Student Loan Committee in 1962, elected a member of the Executive Committee in 1964, and elected a vice president of the Foundation in 1967.

The friendship between the Jenkins and the McDermott families grew stronger in spite of the pressures of building careers. The Jenkinsses had two more children, Philip and Christie, and the McDermotts had a daughter, Mary. Just when things were going well, tragedy struck the McDermotts. The business was

successful and family life was bliss until Mrs. McDermott developed a malignant tumor in 1956. Mr. McDermott consulted Dr. Montgomery to find the best surgeon to remove the tumor. He was willing to travel anywhere to get the best possible result. To the amazement of all concerned, Dr. Montgomery recommended Dr. Ben Wilson, the chairman of Surgery at Southwestern Medical School.

Ben J. Wilson was born on September 13, 1922, in Kokomo, Indiana. He received his medical doctorate from the University of Indiana in 1944 and interned at Wayne County Hospital, Eloise, Michigan. While there he met and trained under Carl Moyer. He then served two years in the Army Medical Corps in Sendai, Japan. He came to Dallas in 1947 to serve a fellowship in surgical research under Dr. Moyer, followed by a residency in surgery at Parkland Hospital. In 1952 he became the first full-time chairman of the Department of Surgery and probably the youngest medical school departmental chairman in the nation. Dr. Wilson had superb surgical skills, an intense interest in patient care, a bedside teaching manner second to none, and a desire to promote research activity in the department. In 1960, after eight years as chairman of Surgery, Dr. Wilson left the school to establish a private surgical practice in Grand Junction, Colorado and ran a successful cattle ranch on the side. In 1976 he retired from surgery and ranching and moved to Phoenix, Arizona, where he became an accomplished portrait sculptor, specializing in statues and busts of prominent people in academic medicine. He completed a full-length sculpture of Dr. Carl Moyer called “The Mentor” in 1992, which presently stands at the doctors’ entrance to Zale Lipshy University Hospital. In addition, he sculpted a life-size bust of Pepper in 1995, which is currently exhibited respectively in the department at Parkland Memorial Hospital and at the Wood Library Museum in Park Ridge, Illinois. His genius is apparent in his ability to establish and succeed in four careers. If Dr. Wilson was chosen to operate on Margaret, then Pepper must do the anesthesia.

Figure 18. "The Mentor" inspired by Carl Moyer and sculpted by Ben Wilson stands at the doctors' entrance to the Zale Lipshy University Hospital. (PHOTOGRAPH FROM A.H. GIESECKE'S FILES.)



Margaret McDermott required two operations at Parkland Hospital, but she recovered well and returned home. During her convalescence, which required a year, Mr. McDermott was discovered to have a malignancy. This also required surgery at Parkland Hospital, and Pepper gave the anesthesia. Now both man and wife were at home feeling puny and miserable. They decided to take an extended vacation to Europe. She visited art museums, and he visited important engineering sites. They stopped in London for a week on the way home and bought a Bentley automobile. This car developed a fame of its own.

The Bentley was a magnificent car, beautifully designed and engineered. The tall chrome radiator cover led to the long straight hood, which concealed the twelve-cylinder engine. Four doors opened to the beautifully appointed, wood paneled interior with fold-down tray tables and cup holders for each passenger seat. Although it turned heads as it majestically cruised down the street, it was not very reliable; in fact, it was in the shop more



Figure 19. Ben Wilson and his bust of Pepper Jenkins taken June 1995. Ben Wilson is former Chairman of Surgery at Southwestern Medical School. (PHOTOGRAPH FROM A. H. GIESECKE'S FILES.)

than it was on the road. Mrs. McDermott grew tired of its undependable nature. She grumbled that the Bentley was a lemon and that she preferred American-built cars, especially those with air conditioning, commonly called “factory air” in those days. Somehow they did not anticipate that even a majestic Bentley would get very hot in the Texas summer. For a while the Bentley remained parked and unloved. Now Dr. Montgomery and Pepper went to see Mr. McDermott one day about some matter or other. Toward the end of the interview, which had gone well, Mr. McDermott looked the anesthesiologist in the eye and said,



Figure 20. The Bentley given to Pepper by Eugene McDermott and driven by Pepper until his death. (PHOTOGRAPH COURTESY OF GREGORY JENKINS, M.D.)

“You like foreign cars. I’ll give you that Bentley in the driveway.” Pepper gulped in surprise and exclaimed, “Sir, do you know how much that car is worth?” Mr. McDermott replied smiling, “I surely do, I paid for it!” So the Bentley became Pepper’s.

Pepper enjoyed picking visitors up at the airport to bring them to the hospital or to their hotel. All were mightily impressed. The Bentley became a powerful recruiting tool. On the ride in from the airport, any prospective candidate for the faculty post was convinced that he was joining the most prosperous department in the country, never mind that the salaries offered were in the twentieth percentile of the nation’s medical schools. However, the Bentley proved to be no more reliable in its new owner’s hands than in Mrs. McDermott’s. It constantly required service, and parts were hard to get. Pepper complained one day to Dr. Montgomery, “That Bentley costs me so much that Betty thinks I have a mistress.” As a demonstration of continuing support for the anesthesiology department, the McDermotts underwrote the development of monitoring equipment and visiting professors

and lecturers. Pepper chose these visitors from England and would ask each to bring a supply of belts and parts with him when he came. I remember picking up one of many visitors from Sheffield, England. Pepper had asked him to bring a muffler and tail pipe. This poor man got off the plane with the muffler and pipe, which were about nine feet long and weighed about forty pounds. He said the airline would not accept them as checked baggage and they were so awkward that they created real problems with fellow passengers when he tried to stow them.

The car stayed with Pepper his entire life. He added an air conditioner, which had to be put in the trunk because there was no room under the hood. He had it extensively reconditioned in 1970. When Pepper died, this car, which played such an important role in the history of the department, passed to Greg Jenkins, the oldest son. Now, prospective faculty candidates are picked up in ordinary cars from the airport if they are lucky. The rest take a taxi.

Although Mr. McDermott was not a graduate of the Massachusetts Institute of Technology, he had a great admiration for the excellent engineering education that was available there. He contributed some money to establish scholarships for young Texans who wished to attend M.I.T. The institute organized a banquet to honor its benefactors and invited the McDermotts. At the banquet they were seated next to Dr. Henry Beecher, the chairman of Anesthesiology at Massachusetts General Hospital. Dr. Beecher was also holder of the endowment named the Isiah Dorr Chair at Harvard Medical School. The conversation soon centered on Pepper. Dr. Beecher described Pepper as the most promising resident that he had ever had in the program. This was very complimentary, considering that a list of the former residents of the hospital reads like a roll call of the world's greatest anesthesiologists. The McDermotts described some of the conditions at Southwestern Medical School and Parkland Hospital and asked Dr. Beecher what he thought that they could do for Pepper. Without hesitation he responded, “Endow a profes-

Figure 21. Henry Beecher, Isiah Dorr Chairman of Anesthesiology at Harvard University and Massachusetts General Hospital trained Pepper in anesthesiology and gave him this picture in 1951. (PHOTOGRAPH COURTESY OF CHRISTIE JENKINS.)



sorship for him.” They talked more about it and thought that it was a good idea but out of reach financially. So the subject was dropped.

Ten years later, in April 1966, they were seated at breakfast one morning, and Margaret McDermott read an item in the *Dallas Morning News* that her husband had endowed the chair and had named it for her, the Margaret Milam McDermott Chair in Anesthesiology. She knew that the endowment was coming, but was totally surprised to learn that it would be named in her honor. What a wonderful gift this was on a beautiful spring morning. This was the fourth endowed chair in anesthesiology in the world. Oxford University in England had the Nuffield Chair (1936), Harvard University had the Isiah Dorr Chair (funded in 1917 but not occupied until 1941); Washington University had the Mallinckrodt Chair (funded in 1950 but not occupied until 1971); and now Southwestern had the Margaret Milam McDermott Chair.



Figure 22. The seal or insignia of the McDermott Chair in Anesthesiology. (PHOTOGRAPH FROM DEPARTMENTAL FILES.)

Pepper was proud and excited. The thought of the honor, the prestige, the tribute, the comparison with the great universities of all time was overwhelming. He determined to give the event the significance it deserved. He worked with a medical artist to design a seal that would forever be associated with the chair and the department and which is filled with profound meaning. Some years later I wrote a description of the seal for the graduation booklet, which is included.

In the form of an eternal circle, the seal has the initials of The University of Texas Southwestern Medical School at Dallas at the top. The key in the center symbolizes the key role that anesthesiology plays in the relief of surgical pain. The kidney shape in the handgrip of the key symbolizes Dr. Jenkins's innovative work with balanced salt solutions in the treatment of hemorrhagic and surgical shock. The locking device of the key is shaped like a shamrock, symbolizing the Irish

heritage of the McDermott family. The lone star is the symbol of the state of Texas. On the left is the oriental poppy, the plant source of opium, symbolizing the pharmacologic relief of pain. On the right is the *Chondodendron tomentosum*, the plant source of curare, symbolizing surgical relaxation. The circle binds the alumni of the program into everlasting union with the institution that trained them.

In 1973, Mr. McDermott's support of Southwestern Medical School expanded to an area of his lifelong interest and activity when he established the Eugene McDermott Center for Human Growth and Development. This chair is complemented by the foundation's recently endowed Philip O'Bryan Montgomery, Jr., M.D., Distinguished Chair in Developmental Biology.

As a result of a grant made in 1974, new offices, conference rooms, and library space for the Anesthesiology Department were built and furnished during the expansion of Parkland Memorial Hospital. Mrs. McDermott participated in the project's design and the selection of colors and furnishings. She wanted the anesthesiology residents, who had horrible work schedules, to have a pleasant work place where they could relax and study. They endowed the M.T. "Pepper" Jenkins Professorship of Anesthesiology in 1977, which I held until my retirement in 1998 and is now held by Dr. Charles Whitten.

Following Eugene McDermott's death, his wife skillfully managed their foundations to advance his goals, but in addition she worked fervently to improve the ambience of the campus. Without her input, it might have become just another concrete jungle. She started with Anesthesiology but progressively improved the appearance of the entire campus environment through her love of art and beauty. Some outstanding examples are the heroic "Fresco Bono" by David Navros, the "Mentor" by Ben Wilson, and the hundreds of southeast Asian textiles that grace the walls of Zale Lipshy University Hospital.

In December 1991, the Excellence in Education Foundation—established in 1961 by Texas Instruments founders Eugene McDermott, Erik Jonsson, and Cecil H. Green—contributed \$30



Figure 23. The monumental “Fresco Bono” by David Navros decorates the entrance to the Gooch Auditorium on the Southwestern Medical Center Campus. (PHOTOGRAPH COURTESY OF THE UNIVERSITY OF TEXAS SOUTHWESTERN MEDICAL CENTER.)



Figure 24. A beautiful example of the Oriental tapestries that Margaret McDermott selected to decorate the walls of the Zale Lipshy University Hospital and the Aston Ambulatory Care Center. This one is from the Eugene McDermott Center for Pain Management. (PHOTOGRAPH FROM DEPARTMENTAL FILES.)

million to UT Southwestern to support new research initiatives in molecular genetics and human disease. In recognition of this gift, the UT System Board of Regents created the Eugene McDermott Distinguished Chair in Molecular Genetics.

In 1950, Eugene McDermott founded the Biological Humanics Foundation as a means to support research in human growth and development. Following his death, the foundation was chaired by Margaret Milam McDermott for several years and subsequently by their daughter, Mary McDermott Cook. Between 1973 and 1991 this foundation also made grants of more than \$2 million to fund special research projects at UT Southwestern. In 1992, under the leadership of Mrs. Cook, the trustees of the foundation, in consultation with Mrs. McDermott, decided to dissolve the foundation and give all its residual assets to UT Southwestern. The funds—totaling almost \$6 million—were used for an endowment to support the Eugene McDermott Center for Human Growth and Development and to create the Eugene McDermott Pain Management and Research Center.



Figure 25. Mary McDermott Cook continues in the finest tradition of civic responsibility and goal-oriented philanthropy established by her parents. (PHOTOGRAPH COURTESY OF MRS. COOK.)

The new pain management center has a unique program that combines state-of-the-art patient care with comprehensive basic and clinical pain research. The center was initially directed by Dr. Darrell Tanelian. Part of the funds from the final gift of the Biological Humanics Foundation was added to the endowment of a professorship in pediatric genetics, which had been established anonymously in 1988. In February, 1993, the UT System Board of Regents voted to rename the professorship the Mary McDermott Cook Distinguished Professorship in Pediatric Genetics.

In 1969, the UT System Development Board awarded Eugene its highest honor — the Santa Rita Award. The award recognizes those who demonstrate great concern for higher education. In 1973, Eugene received the prestigious Linz Award, Dallas’ highest honor for civic achievement. A resolution adopted by the Southwestern Medical Foundation Board of Trustees in 1973 reads:

Mr. and Mrs. McDermott have made numerous gifts to the Foundation to strengthen the faculty, enlarge the research, and to enhance the capital building program of The University of Texas Southwestern Medical Center at Dallas. These benefactions created a lasting memorial to a man who worked for better health for all, who enlarged the frontiers of science, and who searched for new dimensions to the outreach of the human mind and spirit.

Eugene McDermott’s lifelong professional and personal contributions have helped shape the cultural life of Dallas and Southwestern Medical School. His interests embraced the Dallas Public Library, the Dallas Museum of Fine Arts, the Dallas Symphony Orchestra, and the Dallas Zoological Society. Eugene McDermott has passed, but his interests have been perpetuated by Margaret and their daughter, Mary, through their skillful management of the foundations. Motivated by a sincere drive to follow through with Eugene’s interests and by her own desire to improve her community, Margaret presently serves on the Boards of the Dallas Museum of Art, the Dallas Arboretum

& Botanical Gardens, and the Zale-Lipshy University Hospital. She is a member of the Development Board of the University of Texas at Austin. Her tireless efforts have been recognized. She is an Honorary Board Member of Hockaday School, a private school for girls, an Honorary Alumna of Massachusetts Institute of Technology, and a Distinguished Alumna of both Highland Park High School and The University of Texas at Austin.

The McDermotts have created a magnificent legacy for the Department of Anesthesiology, Southwestern Medical Center, and the city of Dallas, and it all started in Mrs. Grace Milam's backyard.

5. ASSASSINATION, NOVEMBER 22, 1963

"I said, 'Mr. President, you can't say now that Dallas doesn't love you.' Seconds later he was shot through the neck, and then through the brain."

— Mrs. John Connally, 1964

Three shots rang out, the President died, and the world stood still. The silence was deafening. It is difficult to imagine a world that suddenly goes silent. Millions of people simultaneously paused to reflect on the significance of the event to their particular circumstance. Regular programming on all radio and television stations was halted to cover the sad news of the event and to play sorrowful music between late-breaking news releases. History had fallen on Dallas like a dense fog, and Parkland Memorial Hospital was in the middle of it. At the time, Parkland had earned a reputation as a modern, well-equipped, well-run, busy hospital, a hospital which would be the pride of any metropolis. Joined to the hospital like a Siamese twin was Southwestern Medical School, striving to achieve excellence in research and teaching. In 1963, Parkland was the principal trauma center for the city and was accustomed to receiving the victims of gunshot wounds. On this day the victims were President John F. Kennedy and Governor John Connally.

Without doubt, the event had profound significance on the history of the world. It also had profound significance on the history of the Department of Anesthesiology. I had finished my residency and a fellowship year in research in July 1963. I had waived the opportunity to go into private practice in El Paso, Texas, and had joined the faculty of Southwestern Medical School. I believed in the mission of Parkland Memorial Hospital as a safety net for the people of Dallas, especially the poor. On this day, I asked a colleague to cover my room because I wanted to join Pepper and others to talk about a proposed re-

search project over lunch. While we were eating, a call came over the hospital's public address system, "Dr. Shires to the emergency room STAT!" Hold on, I thought! Dr. Shires was chairman of Surgery; nobody would ever call him "stat" to the emergency room. Stat calls were for the interns and residents, not for the chairman of Surgery. I gulped one last bite, went to the phone to call the operator, and learned that the President of the United States had been shot. The time was 12:30.

Pepper said that he would go to the emergency room and that I should go to the anesthesia workroom to bring some equipment. In those days emergency rooms were not equipped with oscilloscopic cardiac monitors or automatic ventilators. I took five minutes to gather a "bullet" cardioscope, an anesthesia machine, and an anesthesia work cart. Arriving in Trauma Room 1 at about 12:40, I saw Jackie Kennedy in her blood-stained suit in the corner of the room as I wheeled in the equipment. Dr. Jim Carrico and Pepper were by the president's head. Dr. Carrico had successfully inserted an endotracheal tube just before Pepper's arrival. Dr. Carrico was a surgery resident and had just

Figure 26. The Electronics for Medicine, Operating Room Model — 1 requiring needle electrodes is the cardioscopic monitor taken by A. H. Giesecke to assist in the attempted resuscitation of President Kennedy.

(PHOTOGRAPH COURTESY OF THE
WOOD LIBRARY-MUSEUM.)





Figure 27. The Ohio Heidbrink Anesthesia machine with three gases like the one that A. H. Giesecke took to the emergency room for Pepper Jenkins to use in the attempted resuscitation of President Kennedy. (PHOTOGRAPH COURTESY OF THE WOOD LIBRARY-MUSEUM.)

finished a rotation on the anesthesiology service, during which he had performed over fifty endotracheal intubations. Dr. Malcolm Perry was converting the neck wound to a tracheostomy. An oral surgeon was cutting down on the saphenous vein in the right ankle. These events are all described in detail in an article published in *Texas Medicine* in January 1964.¹⁶ The following quotations are taken from that article.

— “When President John F. Kennedy in a moribund condition entered Parkland on November 22, there was never opportunity for medical history taking. Such a history, had it been taken, would have shown that the patient had survived several illnesses, the dangers of war, the rigor of exposure in icy waters, and ... had waged grueling electoral campaigns in spite of a serious and painful back injury.

At 1 p.m. Dr. William Kemp Clark, associate professor and chairman of the Division of Neurosurgery of The University of Texas Southwestern Medical School, declared him dead. During the interim of less than thirty minutes, continuous resuscitative efforts were made. Later that day, several attending physicians filed reports. The following identifies these physicians and gives the gist of their reports:

Charles J. Carrico was the first physician to see the President. A 1961 graduate of Southwestern Medical School, he is twenty-eight and a resident in surgery at Parkland. He reported that when the patient entered the emergency room on an ambulance carriage, he had slow agonal respiratory efforts and occasional cardiac beats detectable by auscultation. Two external wounds were noted. One a small wound of the anterior neck in the lower one-third. The other wound had caused avulsion of the occipitoparietal calvarium and shredded brain tissue was present with profuse oozing. No pulse or blood pressure were present. Pupils were bilaterally dilated and fixed. A cuffed endotracheal tube was inserted through the laryngoscope. A ragged wound of the trachea was seen immediately below the larynx. The tube was advanced past the laceration and the cuff inflated. Respiration was instituted using a respirator assistor on automatic cycling. Concurrently, an intravenous infusion of lactated Ringer's solution was begun via catheter placed in the right leg. Blood was drawn for typing and crossmatching. Type O Rh negative blood was obtained immediately.

In view of the tracheal injury and diminished breath sounds in the right chest, tracheostomy was performed by Dr. Malcolm O. Perry and bilateral chest tubes inserted. A second intravenous infusion was begun in the left arm. In addition, Dr. M.T. Jenkins began respiration with the anesthesia machine, cardiac monitor and stimulator attached. Solu-Cortef (300 mg.) was given intravenously. Despite those measures, blood pressure never returned. Only brief electrocardiographic evidence of cardiac activity was obtained."

I set to work immediately to attach the cardiac monitor to the President. In those days needle electrodes were necessary. I cannot describe the sensation that came over me as I pushed the needle electrodes into the skin of the President of the United States. The screen on the oscilloscope registered a flat line. Dr. Jackie Hunt tapped me on the shoulder and said, "Dr. Duke needs

you across the hall. The Governor has been shot in the chest." Until this happened, I did not realize that anyone else had been wounded. In short order, Drs. Charles Baxter, Robert McClelland, Fouad Bashour, and Kemp Clark arrived in the room to assist in the resuscitation of the President. Their reports are also published in the article in *Texas Medicine*. I invite the true historian who wishes to know all the details to refer to that article for their reports. I will quote Dr. Jenkins's report because of the intensity and duration of attention that it demanded from the public in subsequent years.

"Dr. Jenkins is professor and chairman of the Department of Anesthesiology at Southwestern Medical School. He is forty-six, a graduate of The University of Texas Medical Branch in Galveston, and was certified by the American Board of Anesthesiology in 1952. During World War II he served in the Navy as a lieutenant commander."

* * *

"When Dr. Jenkins was notified that the President was being brought to the emergency room at Parkland, he dispatched Drs. Giesecke and Hunt with an anesthesia machine and resuscitative equipment to the major surgical emergency room area. He ran downstairs to find upon his arrival in the emergency operating room that Dr. Carrico had begun resuscitative efforts by introducing an orotracheal tube, connecting it for controlled ventilation to a Bennett intermittent positive pressure breathing apparatus. Drs. Baxter, Perry, and McClelland arrived at the same time and began a tracheostomy and started the insertion of a right chest tube since there was also obvious tracheal and chest damage. Drs. Peters and Clark arrived simultaneously and immediately thereafter assisted respectively with the insertion of the right chest tube and with manual closed chest cardiac compression to assure circulation. Dr. Jenkins believes it is evidence of the clear thinking of the resuscitative team that the patient received 300 mg hydrocortisone intravenously in the first few minutes."

* * *

"For better control of artificial ventilation, Dr. Jenkins exchanged the intermittent positive pressure breathing apparatus for an anesthesia machine and continued artificial ventilation. Dr. Gene Akin, a resi-

dent in anesthesiology, and Dr. Giesecke connected a cardioscope to determine cardiac activity."

* * *

"During the progress of these activities, the emergency room cart was elevated at the feet in order to provide a Trendelenburg position, a venous cutdown was performed on the right saphenous vein, and additional fluids were begun in a vein in the left forearm while blood was ordered from the blood bank. All of these activities were completed by approximately 12:50 p.m., at which time external cardiac massage was still being carried out effectively by Dr. Clark as judged by a palpable peripheral pulse. Despite these measures there was only brief electrocardiographic evidence of cardiac activity."

* * *

"These described resuscitative activities were indicated as of first importance, and after they were carried out, attention was turned to other evidences of injury. There was a great laceration on the right side of the head (temporal and occipital), causing a great defect in the skull plate so that there was herniation and laceration of great areas of the brain, even to the extent that part of the right cerebellum had protruded from the wound. There were also fragmented sections of brain on the drapes of the emergency room cart. With the institution of adequate cardiac compression, there was a great flow of blood from the cranial cavity, indicating that there was much vascular damage as well as brain tissue damage. President Kennedy was pronounced dead at 1 p.m."

* * *

"It is Dr. Jenkins's personal feeling that all methods of resuscitation were instituted expeditiously and efficiently. However, he says, the cranial and intracranial damage was of such magnitude as to cause irreversible damage."

We will return to the President later, but my attention was turned at this point to the Governor, who lay wounded in Trauma Room 2. John Connally's health had been in the news on two previous occasions. As Secretary of the Navy, he was accidentally stabbed in the eye by a fixed bayonet while reviewing ROTC troops, and shortly after his inauguration as Governor he had an inguinal herniorrhaphy. When he arrived with the President at Parkland's emergency room, the Governor had gunshot wounds

of the chest, right wrist, and left thigh. Because he was conscious, I suggested that he be moved directly to the operating room. Dr. Duke had already put in a chest tube on the right, had applied an occlusive dressing over the chest wound, had placed a Foley catheter with recovery of 150 ml urine, and was doing a cutdown in his right ankle. His chest and right axilla were being shaved in preparation for a right thoracotomy. I will quote from my section of the article in *Texas Medicine*. The modern anesthesiologist will be interested in the sharp differences in the way the Governor was managed compared with the standard of anesthetic practice in 1999. I considered myself a cutting edge anesthesiologist, but almost everything I did is now obsolete.

“Because of the patient’s poor color, respiratory distress, and probable large blood loss, Dr. Giesecke decided to omit thiopental and to use cyclopropane and oxygen. Accordingly, he asked for quiet and for the Governor to be covered with a clean cotton blanket. At 1 p.m. (just twenty minutes after the Governor arrived in the emergency room) Dr. Giesecke started slowly with 800 cc cyclopropane per minute plus 2 liters of oxygen per minute. The Governor’s color had improved, but his respiration was still rapid at 40 with grunting exhalations. The governor lost consciousness without excitement at 1:07 p.m. and was given 80-mg succinylcholine chloride very slowly intravenously to prevent hard fasciculations and passive regurgitation. Laryngoscopy was atraumatic and easy, and no abnormalities were noted. The pharynx and trachea were sprayed with 4 per cent cocaine and intubated with a 34 Fr. Endotracheal tube with a Knight-Grimm-Sanders cuff, which was inflated to provide a good fit.

During the induction, Dr. Hunt connected the leads to the electrocardiograph monitor. She reported a very transient bradycardia during the intubation. The pulse rapidly returned to 100 and the electrocardiogram looked normal. A blood pressure cuff and stethoscope were applied to the left arm, and blood pressure was noted at 100/70. The explosion-proof X-ray machine was moved in and X-rays taken of the chest, right arm, and left thigh and leg. Blood was drawn for typing and crossmatching, and the hemoglobin was reported at 15.2 gm per 100 cc; urine was normal. Respirations were controlled; the position of the endotracheal tube was checked by auscultation of the chest and

reference to the X-rays. The Governor was placed in a semilateral position with the wounded side up. The right arm was supported from the operating table by a sling over the chest. The skin incision was made at 1:35 p.m., fifty-five minutes after the Governor arrived in the emergency room.

Dr. Shaw, Dr. James Boland, resident in thoracic surgery, and Dr. James Duke, resident in surgery, operated for one hour and forty-five minutes. The patient's position was changed to supine, and Drs. Gregory and William Osborne operated on the arm and Drs. Shires, Baxter, and McClelland operated on the left thigh simultaneously.

The cyclopropane was turned off at 4:45 p.m., and 50 mg meperidine was given intravenously. The Governor regained consciousness during the application of the cast to the right arm and forearm. The endotracheal tube was irrigated with 50 ml normal saline in 10 ml increments, followed by suctioning, which yielded moderate amounts of bloody mucus. The oropharynx was cleaned. The estimated blood loss at surgery was 1296 cc in the chest bottle, suction bottle, and weighed sponges. Urine output was 450 cc. He received 3 liters of lactated Ringer's solution, 2 liters of which contained 5 per cent dextrose; 2000-ml whole blood; and 125 ml 5 percent dextrose in water. His color was pink, pulse 110, blood pressure 120/70, and his extremities were warm and dry. He was awake, could open his eyes, and nod his head on command; therefore, he was extubated. Total anesthetic time was three hours and fifty minutes; total operating time was three hours, fifteen minutes. Upon extubation, Governor Connally spoke immediately, saying he felt well, but he was somewhat restless. The immediate postoperative course was satisfactory, without hypotension, and with only a hint of cyanosis, which resolved over the following three to four hours, during which time he complained of soreness of his right shoulder and a sensation of needing to urinate, caused by the urethral catheter. During surgery he received one million units of penicillin after it was determined that he was not sensitive following a discussion with his wife and a call to Dr. W.B. Swift of Forth Worth. In addition, he received 500 mg tetracycline. He had received 0.5 cc tetanus toxoid in the emergency room before transfer to the main operating suite."

Dr. Robert R. Shaw, professor of thoracic surgery, performed the thoracotomy, removed rib fragments, debrided the chest

wound, closed a laceration of the middle lobe, and observed a hematoma of the lower lobe. He had just returned to Dallas after spending a year and a half in Kabul, Afghanistan, as head of a Medico team. Dr. Shaw was a graduate of the University of Michigan, was fifty-eight years old, and had practiced in Dallas for twenty-five years, mostly at Baylor Hospital. As soon as the operation on the chest had been concluded, Drs. Gregory and Shires started the surgery that was necessary for the wounds of the right wrist and left thigh. Dr. Charles F. Gregory was an orthopedic surgeon certified in 1953 by the American Board of Orthopaedic Surgery. He was forty-four, professor and chairman of orthopedic surgery at Southwestern Medical School, and a graduate of the Indiana University School of Medicine, Indianapolis. He was a veteran of both World War II and the Korean War. He debrided the wound, reduced the fracture, and applied



Figure 28. Audrey Bell, Nursing Director of the Parkland Operating Suite, left and Buddy Giesecke explain the posting procedure to Governor John Connally whose right arm is still in a sling following his wounding. (PHOTOGRAPH FROM A. H. GIESECKE'S FILES.)

a cast. Dr. George Thomas Shires, thirty-eight, was professor and chairman of the Department of Surgery at Southwestern Medical School. He was a 1948 graduate of Southwestern and a former Navy officer. Dr. Shires performed the surgery for exploration and debridement of the gunshot wound of the Governor's left thigh.

The Governor recovered slowly. He learned to sign his name with his left hand so well that only experts could later tell which hand did the signature. On November 30, 1963, he wrote an open letter to the employees and staff saying, "Parkland has proved again that it is one of the finest institutions of its kind in the world." In a subsequent letter he wrote, "The severity of my wounds probably would have resulted in death had there been any delay in medical treatment. Fortunately, a hospital such as Parkland was available, staffed with personnel trained to react swiftly to any circumstances. I was saved because men and women of great skill and experience were on hand to perform their duty." This is high praise from a very important person, and I am happy to say that the tradition of excellence continues.

I spent Friday night, Saturday, and Saturday night in the hospital so that I could be immediately available for the Governor. Pepper came in early Sunday morning to do his office work, saw that I was exhausted, and sent me home. I greeted my family, dressed, and we went to church. Returning from church, I heard on the radio that Oswald had been shot and had been taken to Parkland. I thought, "My God will it never end? Pepper is there and can't do his paper work." Again I quote from *Texas Medicine*.

"On November 24, two days after the shooting of President Kennedy and Governor Connally, an ironic event brought to Parkland the man whom Dallas police had charged with the murder of the President. Lee Harvey Oswald, twenty-four, had been shot. Initial care and surgery were handled by Parkland physicians, including some of those who had cared for the President and the Governor. Oswald was brought into the emergency room at 11:32 a.m., to the operating room at 11:42 a.m., and at 1:07 p.m. he was pronounced dead in spite of all efforts.

The surgery performed on Oswald, who had been shot in the upper abdomen and chest, was done by Drs. Shires, Perry, McClelland, and Jones, and included an exploratory laparotomy, thoracotomy, and efforts to repair the aorta, vena cava, and multiple organ injuries.

In a statement concerning resuscitative efforts for Oswald, Dr. Jenkins reported that Dr. Ron Jones, after being notified through the office of the administrator of the hospital, informed a surgical and anesthesiology team that Lee Harvey Oswald had sustained a gunshot wound and was being brought to the emergency operating room for emergency and definitive treatment. By the time that the patient, Oswald, was registered into the emergency operating room, there was assembled a resuscitative team in the emergency room. Dr. Jenkins recalls that the following physicians were members of the resuscitation team: Drs. Jenkins and Akin, with an anesthesia machine and full resuscitative equipment for the maintenance of ventilation; Drs. Gerry Gustafson, Dale Coln, and Charles Crenshaw, all residents in surgery, who were prepared to introduce cannulae into the veins via cutdowns or percutaneous puncture; Dr. Ron Jones with chest drainage equipment; Dr. William R. Osborne, resident in orthopedics, for necessary orthopedic services; and Dr. William Risk, resident in urology, for evaluation of possible urological damage. Dr. Perry was present to direct the surgical approach. There were many other medical personnel present in addition to these, but the physicians named figured importantly in the initial resuscitative experience, Dr. Jenkins said.

As the patient, Oswald, was brought into the operating room, Dr. Akin introduced a cuffed endotracheal tube and connected it to an anesthesia machine for assisted ventilation or controlled respiration with oxygen. It was obvious that the patient was in extremis as judged by his general pallor, the cold extremities, the dusky or ashen gray color of his nail beds, his gasping respiration, and his dilated pupils and dry conjunctiva. There was a small, oval, traumatized area in approximately the sixth intercostal space, and a foreign object, thought to be a bullet, could be palpated in his right posterior axillary line at about thoracic dermatome ten. No time was expended in making these observations and evaluation of the patient's status, for at the time the endotracheal tube was being inserted, three members of the staff were performing venous cutdowns, one in each lower extremity and one in the left forearm. These were performed by Drs. Coln, Crenshaw, and

Gustafson. Because of the obvious chest wound and appearance of pneumothorax on the left, Dr. Jones inserted a chest tube and connected it to a closed waterseal drainage bottle. The head of the emergency room cart was lowered into a Trendelenburg position. There was no perceptible peripheral arterial pulsation. However, the cardioscope tracing showed electrical cardiac activity with a heart rate of approximately 130 per minute. Blood was sent to the blood bank for immediate typing and crossmatching, and two units of uncrossmatched type O, Rh negative blood was started by pressure infusion from plastic blood containers.

It was obvious that this patient had sustained such an injury that he was continuing to lose blood internally very rapidly. Drs. Shires, McClelland, and Perry collaborated in the decision to move the patient immediately to the main operating suite for emergency laparotomy, since the suspected path of the bullet would seem to traverse the left leaf of the diaphragm, the aorta and inferior vena cava, and perhaps the right kidney and part of the liver. (Dr. Risk had inserted a Foley catheter into the urinary bladder, obtaining only a scant quantity of urine which was not blood tinged.) With the anesthesia machine still connected to the patient, he was transported to the elevator and into the operating room, which had already been prepared for emergency surgery."

I interrupt the quotation at this point to recount an unfortunate incident with the press corps covering the assassination and related news. Pepper has described the resuscitation team that had been assembled to greet Mr. Oswald. A similar and impressive group of reporters and cameramen had gathered to record anything that they could see during Mr. Oswald's arrival. They filmed the ambulance as it came up the driveway; they filmed the unloading and waited in the corridor while the resuscitation team did its work in the trauma room. They filmed the emergence of the team from the trauma room and the entry into the elevator. The emergency room is on the ground floor, and the operating rooms are on the second floor. Some of the cameramen ran up the stairs to the first floor and pushed the elevator button. When the elevator door opened the cameramen were

busily flashing and filming the amazed group in the elevator. This was a shameful delay in the surgical management of a critically wounded man. Afterward Pepper and Dr. Shires recommended that the elevator door on the first floor be permanently closed. To this day the emergency room elevator has no opening on the first floor. Now I continue with the quotation from *Texas Medicine*.

"The abdominal incision was made at 11:44 a.m., twelve minutes from the time the patient was first admitted to the emergency operating room. In describing the patient's condition, Dr. Jenkins says that by the time of the beginning of surgery, type-correct blood (A-1, Rh negative) was available and was administered under pressure through the three venous cutdowns. Under the influence of blood administration and pulmonary ventilation with 100 per cent oxygen, the patient's pulse rate slowed from 130-150 to 80 per minute, and by 12 o'clock he had a discernible peripheral blood pressure, recorded at about 60 systolic, and by 12:10 p.m. his blood pressure was 90/60 and his pulse rate remained regular at 80 per minute. By 12:15 p.m. he had received 3000 ml of blood and 800 ml of 5 per cent dextrose in lactated Ringer's solution. Estimated and measured blood loss at this time was 4000 ml. By 12:30 p.m. he had received 6000 ml of blood and 1 gm of calcium gluconate intravenously. His measured blood loss at this time was 5000 ml, and it was also obvious that an additional quantity was sequestered in his bowel lumen and bowel wall.

At this time the surgical and anesthesia teams consulted about the patient's fluid status and decided that he needed a quantity of balanced salt solution; therefore, in two of the cutdown veins, 5 per cent dextrose in lactated Ringer's solution was begun. Despite this rapid blood and fluid replacement, the patient's pulmonary status seemed satisfactory in that there was no perceptible change in compliance, as judged by the resistance to ventilation by compressing the reservoir breathing bag. At 12:37, Dr. Akin, who was monitoring the heart sounds with a chest stethoscope, reported that the cardiac tones were becoming weaker and the pulse rate was slowing from the previous rate of 80, to 60, to 40, to 30, and then became imperceptible. These changes in rate were verified by a change in electrical activity as shown on the cardiophone. Palpation of the heart through the diaphragm from the abdominal op-

erating site was performed by Dr. Shires, who reported that he could not feel cardiac activity and he noted that the aorta had now ceased to pulsate. Dr. Perry opened the left chest with an incision at approximately the fourth intercostal space, extending from the sternum laterally to the left anterior axillary line. Under direct vision it was verified that rhythmic cardiac activity had ceased, the heart was dilated. Ten milliliters of 10 percent calcium chloride were injected into the chamber of the left ventricle. The heart, which had been flaccid prior to this injection, showed an increase in muscular tone and was not dilated. One mg of epinephrine hydrochloride in 90 mg of 1 per cent lidocaine was injected into the left ventricular chamber, reducing the heart in overall size.

Ventricular fibrillation ensued. Manual cardiac systole (cardiac massage) was begun by Dr. Perry while the internal defibrillation apparatus was readied. Four attempts at ventricular defibrillation were made, with Dr. McClelland applying the defibrillation paddles to the heart, utilizing successively voltages of 240, 360, 500, and 750 without successfully effecting defibrillation. Between the applications of the defibrillation paddles, manual cardiac systole was continued alternately by Drs. Perry and McClelland. At 12:55 p.m., the internal pacemaker, provided by Dr. Bashour, was attached to the heart, but the electrical stimulus provided by this pacemaker was not effective in producing visible cardiac systole. Two other attempts at internal defibrillation were made. The second defibrillating current produced asystole, but the internal pacemaker still did not stimulate effective cardiac activity.

Manual cardiac systole was restarted, causing palpable carotid pulse, but the patient's obvious external appearance was that circulation was ineffective as judged by the development of an ashen gray cyanosis. With an ophthalmoscope, Dr. Jenkins had periodically checked the retina for circulation during the resuscitative processes, and the retina could be visualized until 1:05 p.m., when it was apparent that the lens had become opaque, and retinal circulation was not observed. The patient was pronounced dead at 1:07 p.m. The bullet, which was palpable in the right posterior axillary line, was removed and sent out by the operating room supervisor, Miss Audrey Bell, to be turned over to the legal authorities. As a summary of fluid replacement, this patient received fifteen and one half units of blood and 4200 ml of 5 per cent dextrose in lactated Ringer's solution.

It is Dr. Jenkins's personal feeling that all methods of resuscitation were instituted expeditiously and efficiently. Having observed this patient from the time he was wheeled into the emergency operating room, Dr. Jenkins felt that Oswald sustained a period of cerebral hypoxia or anoxia for the period of time lapsing between the gunshot wound which he received and the time that effective ventilation with oxygen was started in the emergency operating room. Considering the cerebral changes which would begin at the time of initial anoxia, notably cerebral edema, Dr. Jenkins felt that many vital centers, including the cardiovascular center, were irreparably damaged, despite all resuscitative measures, introducing the final cardiac asystole. The trauma which patient Oswald had sustained was too great for resuscitation.”

Oswald was shot by Jack Ruby as he was being transferred from the Dallas County Jail. Ruby was captured, but before he could be tried for murder, he died in Parkland Memorial Hospital of carcinoma of the lung. The deaths of Oswald and Ruby silenced forever any secrets that they may have had about motives or conspiracy.

Presidential assassinations leave a deep scar on our collective memory and consciousness as a nation. When President Kennedy was shot, the federal government had at its command tremendous resources. Yet the subsequent monumental investigative work done and reported by the Warren Commission did not satisfy the skeptical nation. Conspiracy theories developed and gained momentum. Pepper was required to testify before the Warren Commission on several occasions both in Dallas and in Washington, D.C. He received many requests from the authors of the books on the assassination and the conspiracy theory. He always shared his time with these people and tried to answer their questions honestly. They wanted to know the exact location and appearance of the wounds in the president's body. His answers were consistent. One must remember that only ninety minutes passed from the time that Oswald fired the first shot at 12:30 until the body was placed aboard Air Force One for the trip back to Andrews Air Force Base and the autopsy at the U.S. Naval Medical Center in Bethesda, Maryland. The medical team

in Dallas spent only twenty-five minutes in the futile attempt at resuscitation. Little time was spent in detailed examination and recording findings. These tasks were left to the autopsy. Not all of the physicians involved in the resuscitation were as generous with their time as Pepper was. Most remained silent for the next twenty-five years. Some did not want their names associated with one side of the controversy or the other. Probably, the pathologists who were officers in the United States Navy kept silent because of perceived duty to their President and in deference to the wishes of the family who pressed to keep certain findings secret.

Dennis Breo, a reporter for the *Journal of the American Medical Association*, interviewed the three pathologists who did the autopsy and published his report in the *JAMA* in May 1992.¹⁷ Subsequently Dr. George Lundberg, an editor of *JAMA*, wrote the following in an editorial:¹⁸

“Based on solid, unequivocal forensic evidence as reported by Mr. Breo in May and October, I can state without reservation that John F. Kennedy was struck and killed by two, and only two, bullets fired from one high-velocity rifle. The first bullet entered the back at the base of the neck and exited the front of the throat. The abrasion and contusion collar of the skin of the back is diagnostic of a wound of entrance. The second bullet entered the back of the head and exploded the right side of the head, destroying the brain with a surely lethal wound. The inward beveling of the bone at the back of the skull and outward beveling at the front is diagnostic of the direction of the bullet’s path. Thus, both bullets struck from behind. No other bullets struck the President. A single rifle fired both. These firsthand accounts of the autopsy and the scientific forensic evidence are indisputable.

A series of unbiased experts, forensic scientists, pathologists, and radiologists over the years have reexamined the Kennedy autopsy findings using the written materials, testimony of Humes, Boswell, and Finck, the Zapruder film, photographs, X-rays, and microscopic slides. Support from the experts for the published findings and interpretations of the autopsy team and the Warren Commission has been unanimous, except for Cyril H. Wecht, M.D., J.D., who now expresses strong

dissent. Yet even he stated agreement in 1966 and wrote in 1973 that “all shots were fired from the rear.”

While the Kennedy autopsy report was far from perfect (no mention was made of adrenals, pituitary, thyroid, parathyroid, larynx, trachea, ureters, urinary bladder, testes, prostate, gastrointestinal tract, spinal column, or dissection of the neck [apparently largely because of limitations placed by the family]) the pathologists got the salient forensic facts right.”

Mr. Breo published an interview with the four key players in the resuscitation attempt at Parkland: Drs. James Carrico, Malcolm Perry, Pepper Jenkins, and Charles Baxter.¹⁹ The interview followed the release of a sensational book by Charles Crenshaw, which claimed that the bullets struck Kennedy from the front and that the autopsy photos must have been altered. All four of the key players agreed with the autopsy findings that the bullets were fired from above and behind. Mr. Breo reports that Dr. Robert McClelland, professor of Surgery at Southwestern Medical School disagrees, not because of what he saw during the resuscitation, but rather because of his study of the Zapruder film. Mistakes were made in the observations, in the reports, and in the testimonies, but these mistakes do not change the inevitable conclusion. Pepper was mistaken when he said that fragments of cerebellum had protruded from the wound. These fragments were cerebrum rather than cerebellum. Dr. Robert McClelland wrote in the chart and he and I both testified to the Warren Commission that the President’s head wound was on the left side. Neither of us had done a detailed examination of the President’s head. I have wished on many occasions since, that I had testified I did not know where the wounds were. I never dreamed that such a simple mistake would provide support to those who believed that a conspiracy existed, that autopsy findings had been altered, and that the pathologists had maintained silence for twenty-five years to hide the “real truth.”

The most popular manifestation of the conspiracy theory was Oliver Stone’s movie “JFK.” Pepper was invited to play the

role of Dr. Jenkins in the resuscitation scenes of the movie. His performance was superb and nobody even noticed that he was thirty years older than he should have been. He took part even though he did not agree with the conspiracy theory. He said that the movie is great, but it is not a documentary. Pepper believed firmly that Oswald was the lone assassin, and that information published in the *JAMA* in 1992 should convince even the most skeptical cynic that no conspiracy existed. He believed that Gerald Posner got it right in his book, entitled *Case Closed*.²⁰ He had several interviews with Mr. Posner and frequently referred to his book.

The significance of these events on the history of the Department of Anesthesiology is difficult to measure. We can measure the thousands of hours that Pepper spent in testimony and interviews, but these did little to advance the department and were, at best, a distraction. The real benefit was that for a brief interval the attention of the world was sharply focused on the excellence of Parkland Hospital and its Departments of Anesthesiology and Surgery.



Figure 29. Parkland Hospital physicians who tried unsuccessfully to resuscitate President John F. Kennedy included (clockwise from top left) anesthesiologist Pepper Jenkins, surgeon James Carrico (now Chairman of Surgery at Southwestern Medical School), surgeon Charles Baxter and surgeon Malcolm Perry.

(PHOTOGRAPH REPRINTED FROM JAMA 267:2805, MAY 27, 1992).

6. WORLD-CLASS: NATIONAL AND INTERNATIONAL RECOGNITION OF DR. JENKINS AND HIS DEPARTMENT

*“God is not willing to do everything, and
thus take away our free will and that
share of glory which belongs to us.”*

— NICCOLO MACHIAVELLI, 1532

Pepper’s energy and achievements in his thirty-three years as Chairman are difficult to describe. Even more difficult is to give each achievement and award its proper individual worth when the list is so long and complex. Dr. Rick Siker expressed this thought best in his obituary for Pepper, “While the worth of Pepper Jenkins’ contributions... cannot be adequately measured by listing the offices he held (or the awards he received), one gains a sense of this man’s enormous energies.” Here is my assessment of the way Pepper, and coincidentally the department, achieved world-class fame.

I believe that many factors of his dynamic personality and work are responsible: his open policy of hospitality; his ability to remember names and faces; his ability to identify a goal and then to organize, work, and persevere to achieve the goal; and his charm as a lecturer (scientific, eponymous, and memorial). At least these factors deserve individual consideration.

The first factor contributing to the department’s world-class reputation was Pepper’s willingness to invite and receive anesthesiologists from all over the world to visit, train, and to teach. Initially they were sponsored by a grant from the McDermotts. These anesthesiologists came, learned the balanced salt solution message, and returned home to recommend that their younger colleagues should visit Dallas. A trickle of visitors in the early sixties became a stream, then a river, then a torrent. In the mid-seventies we had so many that I had serious doubts that we could get our work done. Pepper’s guest book reads like a

roll call of the world’s best known anesthesiologists. Most of these guests stayed for brief visits, but we always had a senior visiting professor for a month at a time and two or three younger visiting assistant professors who stayed a year or longer. The department leased a two-bedroom apartment because Pepper found that an apartment with maid service and a well-stocked kitchen was cheaper than a hotel. The dean was always suspicious of the apartment and audited it carefully. I am sure that he suspected all manners of immoral activities in that small space. In spite of his suspicions, he occasionally borrowed it to house one of his guests who was on a prolonged visit to the campus.

The visitors were always a great stimulus to the residents and younger faculty. They brought ideas about the care of patients that we would have never considered, and they asked probing and sometimes embarrassing questions about things that we



Figure 30. Pepper Jenkins poses with Sir Robert Macintosh, Nuffield Professor Emeritus of Anaesthesia, Oxford, England. Sir Robert was speaker at the Twenty-fifth Anniversary of the Department in 1974 and one of Pepper’s hundreds of visitors. (PHOTOGRAPH FROM A. H. GIESECKE’S FILES.)

took for granted. The visiting assistant professors were especially instructive. They were well-educated and trained, mostly in the British system. They had passed their fellowship exams and had the title of Fellow of the Faculty of Anaesthetists of the Royal College of Surgeons of London (FFARCS) or Fellow of the Faculty of Anaesthetists of the Royal College of Surgeons of Ireland (FFARCSI). They were skilled clinicians and were here long enough to adjust to this institution and have a real impact on the practice and teaching of the art and science of anesthesiology. These young men and women discovered the experience in Dallas to be a valuable credential when they returned home to apply for a consultant's post.

Pepper faced a great challenge when he asked for temporary licensure for the visitors so that they could have clinical responsibilities. In those days a medical doctor from a foreign medical school was required to take a national examination, apply for licensure in Texas, and receive at least two years of post-graduate training in the United States. Obviously, those requirements did not fit with the design or purpose of the visitors' program, so Pepper was at odds with the Texas State Board of Medical Examiners. The Texas Legislature requires a review of all of its laws every ten years. The process is called "sunset review" and assures that our laws are not too out of date. Pepper's request for temporary licensure for the visitors arrived in Austin at the time that the Medical Practice Act was being reviewed under the sunset provisions. Coincidentally, Dr. Christian Barnard had just done the world's first heart transplant in Cape Town, South Africa. The legislators had visions of Dr. Barnard spending a year in Texas to teach our surgeons how to transplant hearts, and so they wrote in provisions for temporary licensure for distinguished doctors from other countries. The visiting doctors were permitted to have responsibilities for clinical care that were incidental to their teaching or research. Because Pepper's visitors always worked with residents as apprentices, teaching was always the primary goal and the patient care which

resulted was considered incidental. Pepper made the case before the board that because the visitors had achieved fellowship status, they were one in ten thousand in the British population and that they were sufficiently distinguished to qualify for the program. So, after years of effort, the visiting assistant professors were given temporary Texas medical licenses without having to take the national exams or training in the United States. The temporary licenses were severely restrictive and required the visitor to return to the country of origin at the end of the year. This program could not be used as an easy way to immigrate.

Pepper was widely recognized for his hospitality to his colleagues and protégés from the United Kingdom. In 1968 he was made an Honorary Fellow of the Faculty of Anaesthetists of the



Figure 31. Pepper Jenkins on the right in full academic regalia holds the scroll signifying his admission as an honorary Fellow of the Faculty of Anaesthetists of the Royal College of Surgeons of Ireland. Pictured with him are Harold Love, Dean of the Faculty of Anaesthetists, left, and Stanley McCollum, President of the Royal College of Surgeons in 1978. (PHOTOGRAPH COURTESY OF CHRISTIE JENKINS.)

Royal College of Surgeons in London, and in 1978 he received the equivalent Honorary Fellowship from the Faculty of Anaesthetists of the Royal College of Surgeons in Dublin, Ireland.

The second factor leading to Pepper's success was his superhuman ability to remember names and faces. After a brief encounter, he had cataloged face and name in his brain. Years later the recognition would be instantaneous, "Hello, Henry how are you? Your wife, Jane, was suffering from back spasms, I hope she is well. You had two children, Mike and Suzie, I expect that they are grown now!" Everyone nearby would share the amazement and warmth of the recognition and greeting. It failed only when Henry was divorced and remarried with a new wife and family.

I am sure that natural talent is a partial explanation. Some people have a talent for languages and can speak several. Pepper had a talent for names. I know that he worked hard at perfecting the talent. I remember seeing him prepare for a committee meeting. He memorized the names of the committee members in advance so that when he met them he could put the name with the face. He traveled extensively over the United States with the directory of the American Society of Anesthesiologists in his lap. The directory contains an alphabetical list plus a geographical list organized according to state and city. The pilot would announce that we are now flying over St. Louis, Missouri. Instead of looking out of the window to see the arch, Pepper would open the directory and review the names of all the anesthesiologists who practice there.

The proudest manifestation of this talent came at a reunion that Pepper held for all previous visiting assistant professors in the Pompadour Room of the Café Royal in London during the meeting of the Association of Anaesthetists of Great Britain and Ireland, September 10, 1982. The reunion was attended by 120 people including all former visiting faculty to the department and their wives. Pepper called the group to order to thank those

who had arranged for the room for the reception and to report on the state of the department. The polite crowd moved to the walls of the room leaving an open space in the center where Pepper stood speaking. He then began to publicly introduce each one in turn. He moved about the room announcing each name aloud and telling a brief story of their most significant experience at Parkland. I was not there but those who were have told me that all present were filled with wonder and each ear waited for Pepper to make a mistake in a name, a wife's name, or a poorly remembered experience. It did not happen. The recitation was perfect.

The third factor contributing to the success of Pepper and the department was his ability to identify a goal, then to organize and to work persistently to achieve the goal. This characteristic benefited both the department and organized medicine and was widely recognized. He could make a plan for action and accommodate for unexpected events without losing sight of the goal. His luck was such that more of the unexpected events were favorable than inhibitory. His first goal was to establish an accredited residency program.

By 1951 Pepper had established a popular clerkship for students and an educational rotation, which was mandatory for surgery residents, but his dream of a residency program required two or more fully trained anesthesiologists on the teaching staff. Pepper turned for help to Harry Beecher, chairman of Anesthesiology at Massachusetts General Hospital, and Dr. Beecher turned to Robert Dodd, a graduate of the University of Nebraska Medical School, who on the advice of a cousin did some anesthesia in his internship and was ordered to Fitzsimmons Army Hospital as an anesthesiologist during his mandatory military service. After discharge and some time practicing in Milwaukee, he went for a residency at Massachusetts General Hospital. After he finished in 1950, he stayed on for a while as an instructor until he could find a suitable position.

On the basis of Beecher's high opinion of Pepper along with some correspondence and phone calls, Dodd set out for Texas to work in a school and hospital, which he had never seen for a man whom he had never met. Dodd describes his experience in an article written for the Pepper Jenkins Festschrift²¹.

"Parkland was a superannuated, dark, and dreary city-county hospital. The medical school campus consisted of war surplus Quonset huts scattered over the lawn, or mud, within walking distance of the hospital.* The quality of the faculty was superb, and the morale of the student body was high.

Air conditioning in the operating rooms consisted of gigantic fans in the substerilizing rooms between the operating rooms. "Sterile" Texas dust would blow across the surgical theater as the surgeons plied their trade. On particularly hot days, especially for long procedures, we would suspend the drapes at the head and foot of the table to maximize air circulation to the patient.

Typical patients were very ill or heavily traumatized charity patients. The lucky anesthesiologist on call saw a lot of trauma, frequently of the shooting and stabbing variety. "More gunshot wounds and stabbings than I saw in the South Pacific during the War," Pepper used to say. One patient I remember vividly was a young Mexican-American man with "Born to Lose" tattooed across his chest. He was brought to the operating room with a bullet wound of entry through the "o" in "Lose" and died of cardiac tamponade.

Faculty and medical students and their families were also patients. After all, it was the best medical staff in Dallas. Pepper gave Mary a saddle block for the birth of our son, Bob. About five months later, I reciprocated by anesthetizing Betty for the birth of their daughter, Christie. Betty still complains about how tightly I held the mask on her face. I guess I was nervous."

In spite of his nerves, Dodd began work on a textbook on *Diethyl Ether: Its Effects in the Human Body* while he was in

* These were neither war surplus nor Quonset huts, but rather were a series of connected prefabricated buildings built especially for this purpose in 1943 with the approval of the War Department because doctors were needed in all military services.



Figure 32. Dr. Robert Dodd, center, recruited by Pepper to be the second fully trained anesthesiologist at Parkland Memorial Hospital with his wife, Mary, right, at the twenty-fifth anniversary in 1974. He later became chairman of Anesthesiology at three important universities: Maryland, Washington at St. Louis, and Southern Illinois. (PHOTOGRAPH FROM DR. M.T. JENKINS'S FILES.)

Dallas.²² He went to Baltimore as chairman of Anesthesia at the University of Maryland in 1953; to St. Louis as Henry Mallinckrodt Chair of Anesthesiology, Washington University in 1956; and finally to Springfield, Illinois, as chairman of Anesthesiology, University of Southern Illinois in 1969. All in all, he was Chairman at three universities, proving that Pepper's first addition to the staff was a true academician and a man of great potential. His presence at Parkland achieved the goal of establishing an approved residency training program in anesthesiology.

Pepper affiliated with Children's Hospital to increase the number of pediatric patients for the residents. He named Nellie R. Luhn director of the Anesthesia Service there. The experience for the residents was terrific. Children's service grew in



Figure 33. Nellie R. Luhn, M.D., was the second resident in the Parkland program. She remained on the faculty and became the Chief of Anesthesia at Children's Hospital.

(PHOTOGRAPH COURTESY OF GEORGE RACE.)

volume and complexity. Luhn remained at Children's Hospital until she announced her marriage to Guido Currarino, a pediatric radiologist, and resigned from the faculty in 1966. A new Children's Hospital was planned and scheduled to open in 1967. Luhn's resignation could have precipitated a serious crisis in the department except for some of Pepper's foresight and good luck.

Pepper had the responsibility for making a movie for the American Society of Anesthesiologists that would be used to recruit medical students into careers in anesthesiology. The movie included segments from several teaching hospitals showing interesting activities. One of the segments was made at Duke University, and Pepper spent a week in Durham working with the frustrated chairman of Anesthesiology, Dr. C. Ronald Stephen. In a bold moment Pepper invited Dr. Stephen to join the faculty of Southwestern and he accepted.

Dr. C. Ronald Stephen, whose lectures had been compared to the sermons of a fundamentalist, evangelical preacher, was

resigning his chair. He was frustrated by his failure to convert the Division of Anesthesiology at Duke into a separate department, and he was attracted by the opportunity to return to a full-time pediatric practice in a children’s hospital. Dr. Stephen was a graduate of McGill University in Montreal and had served as chief of anesthesia at Montreal Children’s Hospital. He had written a textbook on pediatric anesthesia and had invented the “Duke



Figure 34. The Duke Inhaler, a self-administered vaporizer for trichloroethylene analgesia in laboring parturients, was one of Ron Stephen’s most important contributions to medicine. The patient held the mask to her face and breathed deeply during a painful contraction. If she became unconscious, her grip would weaken, the inhaler would fall off of her face, and she would breathe air until she recovered. The chain and wrist strap assured that she would always know where the inhaler was.
(PHOTOGRAPH COURTESY OF THE WOOD LIBRARY-MUSEUM.)

Inhaler," a hand-held, self-administered vaporizer for trichloroethylene analgesia in laboring parturients, the Stephen-Slater valve, a nonbreathing valve for pediatric anesthesia, and the FNS vaporizer for halothane. He had done the first halothane anesthetic in the United States in fulfillment of a research grant from Ayerst Laboratories. He was also editor-in-chief of the journal *Survey of Anesthesiology*.

Because of these accomplishments and many others, Dr. Stephen already had an international reputation as a distinguished professor before he arrived in Dallas. He was in demand as a lecturer on a variety of subjects all over the world. He was an established investigator and launched well-funded research projects on two new anesthetic agents immediately on arrival. The first was a new intravenous agent, which ultimately was named ketamine, for poor-risk patients and those with burn injuries. The second was a new nonexplosive inhalation agent, which came to be named enflurane.



Figure 35. C. Ronald Stephen, M.D. was already an accomplished academician when he came to Dallas.

(PHOTOGRAPH COURTESY OF
GEORGE RACE.)

He engineered the move to the new hospital and established the first day surgery unit in Texas. Dr. Stephen recognized that the eight operating rooms in the new building were far too many for the eighty-inpatient beds. The operating rooms had been seriously overplanned. He reasoned that an active day surgery unit would assure that the eight operating rooms would be properly used. This was a risky concept because day surgery units were a novelty and virtually untried in pediatrics. The new unit was a smashing success with children and parents who dreaded separation, with surgeons who appreciated the reduced paperwork and hassle, and with insurance carriers who appreciated the reduced cost. Dr. Stephen added associates, including Drs. E. Warner Ahlgren and Ted Bennett, who joined him as coauthors on the second edition of his popular textbook, *Elements of Pediatric Anesthesia*.²³ By 1970 the innovative work at Children’s Hospital had been accomplished, and the work had become routine. We were not surprised to learn that Dr. Stephen had accepted the prestigious Mallinckrodt Chair of Anesthesiology at Washington University in St. Louis.

He followed Dr. Robert Dodd, who resigned that post because the administration refused to grant departmental status to his division. Departmental status was part of the package demanded by Dr. Ron Stephen who remained The Mallinckrodt Chairman until his retirement in 1985. He is an enthusiastic historian, and since his retirement has served as a trustee of the Wood Library-Museum and has been active in the Anesthesia History Association, serving as editor of the newsletter and president in 1998. Pepper’s strategy to put our children’s hospital on the map from the viewpoint of academic anesthesiology was beautifully accomplished by Dr. Stephen’s presence.

Through the years Pepper recruited and developed many more talented academic anesthesiologists. Several have become chairmen of departments (see Table 1 on page 115). Although their contributions to the reputation of the department are significant, by 1970 the label “World Class” had already been earned

and attached to the department. Perhaps the most significant contribution to the reputation of the department was Pepper's monumental service to organized medicine.

Pepper never belonged to an organization just for the fun of it. If he belonged, then he had to participate to the maximum extent of his energy, and his energy was tremendous. He assumed leadership roles until he had served as president, then he suffered a psychological letdown when he became past president. This was a frequently repeated theme in his career. It was so with the medical staff at Parkland Hospital, where he was secretary 1952-53 and president 1956-57. It was true with the Texas Society of Anesthesiologists, where he was secretary/treasurer 1958-60, vice president 1960-61, president 1962-63, and winner of the Founders Award (equivalent to a distinguished service award) in 1987. The theme was repeated in the Section on Anesthesiology of the Southern Medical Association, where he was secretary 1960-61, vice chairman 1961-62, and chairman 1962-63. It was repeated again in the Association of University Anesthesiologists, an elite invitational society of university academicians. Pepper was on the Board of Counselors 1960-65 and president 1965-66. The theme was true in the Academy of Anesthesiology where he was vice president 1977-79 and president 1980. After he retired from the chair in Anesthesiology in 1981, he remained part-time in the department. He never returned to active clinical practice, but he did continue his energetic efforts in organized medical politics. He was elected to Southwestern Medical Center's Faculty Senate, where he once again worked his way into the leadership, serving as president 1984-85. If one understands this psychological drive for leadership roles, then one can understand the magnificent work that Pepper did in the American Society of Anesthesiologists (ASA) and the American Medical Association (AMA).

Simply listing the posts that he held does not adequately describe the quality or the quantity of his effort. Listing the posts does not adequately describe the hours of phone calls, the moun-

tains of correspondence, the days and weeks away from home and office, the careful analysis of the goals and abilities of the societies and his inspiration for their future. He was first elected from the Texas Society of Anesthesiologists to the House of Delegates of the American Society of Anesthesiologists in 1960. By 1963 he was the director of the delegation and served in the ASA's Board of Directors.

He was appointed to the Board of Governors of the American College of Anesthesiologists (ACA) 1965-70. Today few people remember the ACA, which was a subsidiary of the ASA. Historically, the ACA certified anesthesiologists on the basis of written and oral exams similar to the American Board of Anesthesiologists (ABA), except that the certificate was available earlier in one's career and was available to noncitizens. The work was time-consuming and contentious because the work of the college always competed and conflicted with the work of the ABA. Pepper worked toward harmony and compromise. He saw solutions where others could only see problems. He felt strongly that the ACA should be preserved in order to offer some form of recognition to the thousands of anesthesiologists who are well-trained and do a good job but because a myriad of human reasons never became certified by the ABA. However, his wisdom did not prevail, and in 1987 the ACA ceased its certifying activities and became a committee of the Wood Library-Museum, charged to maintain a registry of the five thousand anesthesiologists who had previously been certified.

Pepper's popularity and vision for the American Society of Anesthesiologists and its 18,000 members propelled him into the offices of first vice president in 1970, president-elect in 1971, and president in 1972. He was proud of several innovations during his term, including the regional refresher courses. His persistent efforts on behalf of the ASA were recognized by a grateful society. The five-day annual meeting of the ASA contains only one plenary session. The purpose of this highly ceremonial session is to hear the invited Rovenstine Lecturer, to present the

Distinguished Service Award, and to present the Excellence in Research Award. He won the Distinguished Service Award in 1978 and he gave the Rovenstine Lecture before an estimated four thousand anesthesiologists at the annual meeting of the ASA in 1980.



Figure 36. Jess B. Weiss, President of the American Society of Anesthesiologists, presents the 1978 Distinguished Service Award to Pepper Jenkins at the 1979 annual meeting. (PHOTOGRAPH COURTESY OF THE WOOD LIBRARY-MUSEUM.)

He began his work with the American Medical Association on the Section on Anesthesiology in 1960, and the theme of leadership was repeated. He became assistant secretary, then secretary, then vice chairman, and finally chairman in 1969. He became a delegate from the ASA to the AMA House of Delegates in 1972. From that body he was appointed to the Interspecialty Advisory Board and served two terms as chairman in 1975 and 1976.

In 1973 the Chinese Medical Association issued an invitation through the Liaison Office of the People’s Republic of China in Washington, D.C. to the American Medical Association to send a delegation of twelve physicians for an official visit from July 9 to 30, 1974. Pepper was chosen to be one member of the delegation. He accompanied Dr. Malcolm Todd, president of the AMA; Drs. Russell Roth and C. A. Hoffman, the two immediate Past Presidents; chairman of the AMA Board of Trustees, Dr. Richard Palmer; Dr. James Sammons, executive vice president; three members of the Board of Trustees, Drs. Kenneth Sawyer, John Chenault and Donald Wood; chairman of the Interspecialty Council, Dr. Jay Arena; Director of International Medicine, Dr. John Cowan; and four laymen — Mrs. Roth, Mrs. Hoffman, AMA executive vice president, Joe Miller, and *Chicago Sun Times* columnist, Mrs. Jules Lederer (Ann Landers).

Pepper felt that the visit was very important for American medicine and for himself. He gave many lectures on his trip to China to groups of doctors, medical students, church groups, ladies groups, etc. He wrote a detailed report on the trip, which is available in the archives of the Wood Library-Museum and served as the source for this summary.

As official guests of the Chinese government, the AMA delegation was received with overwhelming hospitality. The time was carefully planned from early morning until night, and implementation was so smooth that Pepper was unaware of any difficulties managing the itinerary and holding the large group together. The group visited thirty-one health-care institutions, including thirteen Western hospitals, five Western medical schools, three traditional hospitals and associated medical schools, health services in three factories, health services in three communes, and one research institute, in addition to an audience with Minister of Health Madam Lin Hsiang-jiu. Sightseeing was not neglected, and the delegation had specially planned visits to the Forbidden City, the Summer Palace, the Great Wall, the Ming Tombs, the Imperial Palace in Shenyang, an industrial exhibit

in Shanghai, the zoo in Kuangchou, and acrobatic shows in Shenyang, Talien, and Shanghai.

Evenings were occupied with official dinners and entertainment. Pepper had only two opportunities to take leisurely walks to watch people at their ordinary activities and children at play. Aside from these walks, the delegation was always together. The only irritation suffered by the group was the lack of air conditioning. His lengthy descriptions of the July heat in China resemble characterizations of the summer in Texas. The Chinese always passed out fans and Pepper said, "We all learned to fan automatically and continuously. Like the accessory muscles of respiration, the muscles used in fanning are volitional and would stop working once I fell asleep." However, the discomfort caused by the weather was compensated by the cheerful hospitality of the hosts and the bounteous feasts of Chinese delicacies. He describes eating jellyfish, sea slugs, whale stomach, duck feet, shark fins, and other treats.

Pepper summarized his conclusions regarding medical services in China thus:

1. Outstanding work is being done by some Chinese physicians and Chinese hospital staffs in replanting severed arms, legs, hands, feet, fingers, and toes.
2. Striking results are being achieved by the Chinese in the treatment of severe burns.
3. Methods of treating fractures, which would be regarded as unorthodox by Western standards, seem to produce excellent results and should be studied by us.
4. Acupuncture as a method of reducing pain perception during operations is used in not more than 15 percent of Chinese major operations and presents features that should be further studied because it may reduce some complications of surgical operations. Its widespread use in Western surgery seems highly unlikely.
5. Acupuncture as treatment for a wide range of common medical complaints reportedly has been in use for more than 3,000 years. It has not produced very satisfactory results in the past, we judge,

- since they have looked for newer methods, and there is no scientific evidence to show that anything has changed in the present.
6. Chinese progress in eliminating venereal disease and many other public health hazards is highly commendable. Many of the modern pestilences fall within the perimeters of political, social, and economic action, and transcend the capabilities of medicine to cope with them. During the past twenty-five years, since Chairman Mao Tse-tung proclaimed the establishment of the People's Republic of China, the power of the government has been directed toward the elimination of venereal diseases, improved housing and sanitation, better nutrition, enforced physical discipline, and rigorous population control. We are led to believe that the Chinese people are fiercely devoted to the government, reflecting the intense and continuous political and psychological indoctrination in which all participate. As a major message from China, the population and the government proclaim preventive medicine to be a political-social-economic-cultural problem for which medicine may provide the theory while the government provides the muscle.

Pepper left China feeling that in 1974 the country had many positive attributes for life. At the same time, he recognized many negative aspects whose total effects were for the good of the people. These included no elitism but true egalitarianism; no poverty, but also no great wealth; no begging — begging is a crime against the State; no crime, or at least there are certainly no repeat criminals; no venereal disease; and no inflation. Everything was owned by the government, which could not afford inflation. Of great importance to physicians, there were no professional liability problems, because the lawyers were banished to the communes to reidentify with the masses when the law schools were closed in 1966. Lawyers had not been brought back from the commune, and the law schools had not reopened in 1974.

One benefit of Pepper's visit to China was the attitude that he developed toward acupuncture. He was frequently consulted regarding the growing popularity of acupuncture in the United States and helped formulate official policy of the Texas State

Board of Medical Examiners, the ASA, and the AMA. The uniform opinion of the AMA delegation to China was that acupuncture as analgesia, anesthesia, and therapy for a variety of diseases merited controlled study. The critics were mostly marginal M.D.s who supervised groups of non-English speaking Orientals whose qualifications were unknown, treating various diseases without scientific rationale. These critics contended that acupuncture had been employed in China for 3,000 years and needed no further investigation.

Largely because of Pepper's influence, the Texas State Board of Medical Examiners ruled that acupuncture constitutes the practice of medicine and falls within the purview of the Medical Practice Act of Texas. Also, the Board of Counselors of the Texas Medical Association has published its opinion that acupuncture should be considered strictly as an investigative procedure and should be permitted only in medical centers and hospitals having committees on research in humans.

He helped draft the policy of the ASA, which stated:

The American Society of Anesthesiologists is gravely concerned over premature application of acupuncture to American patients for relief of pain during surgery. The safety of American medicine has been built on the scientific evaluation of each technique before it becomes a widely accepted concept in medical practice. The premature use of acupuncture in the United States at this time departs from this traditional approach.

A potentially valuable technique, which has been developed over thousands of years in China, is being hastily applied with little thought to safeguards or hazards. Among the potential hazards is the application to the patient who has not been properly evaluated psychologically. If acupuncture is applied indiscriminately, severe mental trauma could result in certain patients.

Another hazard is the possible misuse by quacks in attempting to treat a variety of illnesses, including cancer and arthritis, thus diverting the patient from obtaining established medical therapy. Exploitation may delude the public into believing that acupuncture is good for whatever ails you.

Acupuncture may indeed have considerable merit and may eventually find an important role in American medicine. That role can only be determined by objective evaluation over a period of years.

As the discipline most seriously concerned, the American Society of Anesthesiologists feels a great responsibility to learn what it can through dialogue with Chinese acupuncture specialists.

Pepper predicted, “China is an awakening giant, and if the country is not racked by revolutions in the future, it will be a nation of great power and will export more than just acupuncture to the capitalist world.” Today we are able to realize the wisdom of Pepper’s prediction in 1975.

The visit to China was an early high point of Pepper’s labors with the AMA but certainly not the endpoint. He served on the Council of Medical Specialty Societies from 1969 to 1978 and the Coordinating Council on Medical Education. The Coordinating Council was changed to the Council on Medical Education (CME) and Pepper was elected to membership in the CME by the House of Delegates in 1976. The Council on Medical Education is the agency that approves and accredits medical schools to offer the Doctor of Medicine degree. Once again, the committee’s work is tedious and emotionally exhausting. Each application for accreditation is typically accompanied by approximately a thousand pages of supporting material, which must be read and understood before the scheduled site visit requiring three days to a week. He served as chairman of the CME from 1980 to 1983.

He was on the Liaison Committee on Graduate Medical Education and the Accreditation Council for Graduate Medical Education. This is the approval and accrediting agency for all residency-training programs in all specialties in the United States. He was vice chairman of that council in 1981 and chairman in 1982. He was appointed by the AMA to the Board of Directors of the National Residents Matching Program. This program, well known to all senior medical students, is the national system of matching medical school graduates with the residency training

programs of their choice. He served on the Liaison Committee on Specialty Boards and was chairman from 1980 to 1982.

We all recognize that the work of these councils, committees, and boards is important, and we are happy that somebody is willing to sacrifice the time and effort required to keep the massive system of medical education in motion. Pepper made that sacrifice and most of us don't even realize that every day we enjoy the benefits of his vision of the future, his wisdom, and his skillful negotiations. In recognition of his work in the AMA, he was awarded the Distinguished Service Award in 1988. He was the first anesthesiologist in history to win this prestigious award. The front piece is a photograph of Pepper receiving the AMA's Distinguished Service Award.

Many organizations, which Pepper had not served directly, honored him with awards that were recognition of his service to the profession and to society in general. He was elected an honorary member of Alpha Omega Alpha by the chapter at Southwestern Medical School in 1971. AOA is an honorary society whose membership is composed of medical students in the upper 10 percent of their class in the junior or senior years. Pepper did not make it as a medical student but was honored to receive it in recognition of thirty-one years of continuing contributions to medical education. His response was typical: "... clearly a case of intelligence established by a vote." He received the McQuiston Award from the Illinois Society of Anesthesiologists in 1981, and the same society awarded him the Ralph Waters Prize in 1988. He received the Dannemiller Memorial Educational Foundation Award for teaching excellence in 1987. The Baylor Medical Center Anesthesiologists gave him their Leadership Award in 1972. The Alumni Association of The University of Texas Medical Branch in Galveston gave him the Ashbel Smith Distinguished Alumnus Award in 1974, and the Dallas County Medical Society gave him the Max Cole Leadership award in 1990.



Figure 37. The medallion of the Ashbel Smith Distinguished Alumnus Award of the University of Texas Medical Branch in Galveston received by Pepper Jenkins in 1974. (PHOTOGRAPH COURTESY OF CHRISTIE JENKINS.)

A critic might say that medical politics takes one away from the practice of medicine too much, that it imposes too much of a burden on colleagues who have to fill the breach, and that the rewards are few compared to the monumental amount of time consumed. I believe that the critics are wrong and that voluntary service to organized medicine is the factor that has pushed our health care system to the forefront in the world, and that Pepper was a leader in the push. I have no doubt that his service and the recognition that he received made this department “World Class.”

The fourth factor contributing to Pepper’s success and recognition of the department was his popularity as a lecturer. He was a superb lecturer with a powerful feeling for the importance of his message and an ability to hold the spellbound attention of his audience with homespun humor, with quotations from classical literature, and with admonitions to improve the quality of their practice of medicine. I often wondered where he got his

material. When I cleaned out his office after his death, I learned. He had several notebooks full of "one liners." Some were handwritten, some were typed, and some were cut from another document and pasted. They were not organized into categories, so that in preparation for a lecture he browsed through the pages reading them over until he found just the right ones. In this way he memorized the whole lot so that they were available for ad lib use. Here is a man who appreciated humor and worked hard to incorporate it into his teachings. I have reproduced below a page of one of the notebooks.

"On the average he does all right, but like the statistician who drowned in a creek of average depth of one foot, he sometimes goes in over his head".

"His only urgent concern was the hereafter."

"Instead of loving his enemies, I wish he would treat his friends a little better."

"If there are two sides to every argument, why is there only one answer?"

"Old _____, as he is affectionately known by his friends and admirers, both of them."

"To paraphrase General DeGaulle: Agreements are like treaties, roses, virginity, and youth. They last while they last."

"We are practicing an art which consists largely of balancing probabilities."

"I wouldn't say that resident is our laziest, but he is the only one whose self-wind watch runs down at work."

An example of the way that this system served him is the nomination of Dr. Arthur Keats to be president-elect of the Association of University Anesthesiologists in Houston, Texas, March 11, 1972. Dr. Keats and Pepper were longtime friends. Although Dr. Keats was six years younger than Pepper, their residencies in anesthesiology at Massachusetts General Hospital overlapped one year. In 1953, Dr. Keats moved to Houston to be director of the anesthesia service at Ben Taub Hospital. He

became chairman of the Anesthesiology Department at Baylor College of Medicine from 1955 to 1974. He also served as editor-in-chief of the journal *Anesthesiology* and at the time had a reputation for toughness, insisting that articles be scientifically and linguistically correct. Pepper had been president of the Association of University Anesthesiologists in 1966. At the lunch before the business meeting of that dignified academic society, Dr. Keats approached Pepper, telling him that he would like to be President of the society and asking Pepper to nominate him at the business meeting, which would follow lunch. Pepper enthusiastically agreed and scribbled some notes on the margin of his program. I found the program with Pepper’s marginal notes among his papers after he died. The whole society smiled and laughed at Pepper’s remarks and Dr. Keats was easily elected on the first ballot.

“As a senior member I appreciate — I think — being relegated to the membership category of consultant, which means essentially that we can diagnose but not treat, or as our Houston host, Art Keats, so pointedly phrased it, “you senior members have reached the era of decrepitude when you find infidelity more pleasant to contemplate than to cope with.” Speaking of our Houston host, Keats, I have risen primarily to reflect the opinions of a large group of normally vigorous, younger luminaries of this association who agree that Keats should be nominated for president-elect. Yet each of these younger members expressed some personal impediments to making the nomination, not related at all to Art’s qualifications for this position. As one said, “Arthur may object to this now, so if I make it, then my next article submitted to the journal *Anesthesiology* may come back marked, “good only to be recycled,” or “I suggest you shred this carefully and use for confetti at the funeral of your next patient.” Another of the active members suggested that, with his obvious zest for living and his exuberant sense of the absurd, Art would find moments of pleasure even in the drudgery of the council meetings. An ancient philosopher once observed that even the ugliest of trades have their moments of pleasure. As that philosopher said, “Now if I were a grave-digger, or even a hangman, there are some people I could work for with a good deal of enjoy-

ment!" As president-elect of the AUA, Art Keats would work for you with a good deal of enjoyment, and I wish to nominate him."



Figure 38. Pepper Jenkins addresses the Texas Society of Anesthesiologists at the historic Shamrock Hilton Hotel in Houston. The hotel was torn down a few years after this meeting was held. (PHOTOGRAPH COURTESY OF CHRISTIE JENKINS.)

Hidden in the humorous quotation above is a sincere recommendation to elect Art Keats to lead the association for the next two years. Pepper's address always carried a serious message, most often cloaked in humor. By invitation he gave many memorial lectures. One of the best of these was his memorial for Dr. David Little of Hartford, Connecticut, who followed Pepper as president of the American Society of Anesthesiologists. The full text of the address, which is one of Pepper's finest, is in the archives of the Wood Library-Museum. The lecture was presented at a meeting of the New England Society of Anesthesiologists in Vergennes, Vermont, September 23, 1983.

Pepper took a quotation from classical literature and in a flattering way used it to describe Dr. Little's life and career.

Thomas Wolfe wrote, “Some few have the quality of richness and joy in them and they communicate it to everything they touch. It is first of all a physical quality then it is a quality of the spirit.” Dave applied both physical and spiritual energy to his many projects in the ASA. For example, at the summer meeting of the ASA Board of Directors in August 1972, when I was presiding, the ASA had just received an invitation to join still another group interested in trauma. In fact, this was the ninth group in my tenure that claimed proprietary rights to the study and treatment of trauma. The group had chosen the acronym STEP, meaning Study of Trauma and Emergencies Project. Dave Little, first vice president of the ASA, wrote this on the blackboard:

STEP (Study of Trauma and Emergencies Project)
SLUDGE (Society for Lessening Unnecessary Deaths from Geriatric Emergencies)
WASTE (World Association for the Study of Trauma and Emergencies)
DEBRIE (Directors of Emergency Boutiques for Resuscitation – Intensivist Services)

Dave said STEP would surely lead to SLUDGE, WASTE, and DEBRIE, and he said that president-elect Rick Siker had done the work of a *trove* of committees in disposing of sludge, waste, and debris. I challenged Dave, “What is a trove of committees?”

“Oh, Pepper,” he said, trying not to sound unnecessarily condescending there before the Board of Directors, “A trove is a collective noun indicating a generic group, like a flock of geese, or a herd of cattle, or a pride of lions,” and then from the membership of the Board of Directors these others came floating up:

A slumber of anesthesiologists
A slash of surgeons
A rash of dermatologists
A brace of orthopedists
A hassle of psychiatrists

At this point, Gerry Converse (from Florida, now deceased), was so bothered by the phonetic spelling of the word *DEBRIE*, that he rose from his seat, stalked to the blackboard, scratched through *DEBRIE*, wrote it properly, *DEBRIS*, and sat down, and Dave said, “Gerry was

not part of the trope – so he didn't know the phonetic spelling," but Gerry joined in the frivolity of collective nouns to describe medical specialties —

<i>A dribble of urologists</i>	<i>A clot of hematologists</i>
<i>A pool of urologists</i>	<i>A push of obstetricians</i>
<i>A cast of orthopedists</i>	<i>A family of GPs</i>
<i>An eyrie of ophthalmologists</i>	<i>A warren of gynecologists</i>
<i>A herd of otologists</i>	<i>A beat of cardiologists</i>
<i>A gaggle of laryngologists</i>	<i>A shadow of radiologists</i>
<i>A stiff of pathologists</i>	<i>A cavity of dentists</i>

Pepper continued to tell stories which described Dr. Little's humility (he wore a button which read "Dave who?"), his flair for the dramatic, his skill as a speaker ("oratory you could waltz to"), and his love of good books. Pepper ended his eulogy with the following:

*Some men are more missed
 Than lamented
 When they die.
 Others are deeply mourned –
 But scarcely missed.
 Some very few, like Dave Little,
 Are greatly lamented,
 Deeply mourned,
 And sorely missed.*

Pepper's popularity as a lecturer never faded and he was invited to give the Rovenstine Lecture before the plenary session of the ASA October 14, 1980. The ASA has three awards of highest honor: the Excellence in Research Award, the Distinguished Service Award, and the invited Rovenstine Lecturer. Pepper won the Distinguished Service Award in 1978 and delivered the Rovenstine Lecture in 1980. The complete text of the lecture is available in the Wood Library-Museum, but I will summarize the enduring points here. His lecture contained the characteristic appropriate quotations from classical literature, but it lacked the evangelical fire that his lectures usually exhibited, probably because of the respect that he felt for the occasion and

the respect that he had for his subject matter. His basic theme was the adverse influence of government on medical education and practice and how doctors were unwittingly drawn into planning that influence, not realizing that it was evil. He compared it to the movie *Bridge on the River Kwai*.

In the movie, a group of British engineers were taken prisoners by the Japanese in Burma during World War II. They were forced to build a railroad bridge over the river Kwai. Because they believed in excellence they built a superb bridge. Then they realized that the Japanese would use the bridge to transport troops and munitions to the front to defeat the British and American forces. The British commander was extremely proud of the completed bridge, but managed with the last bit of energy from his bullet-riddled body to fall across the plunger of the detonator and blew the bridge to pieces.

Pepper began with a tribute to Dr. Emery Rovenstine, saying that he had left a magnificent heritage for the future of anesthesiology. Dr. Rovenstine had predicted the future, but did not define who should be responsible for it. Pepper felt that we must all be responsible, that we cannot leave it to the experts who may be talented and well informed, but are flawed. Even Dr. Rovenstine could not predict the effects on medical care imposed by an officious public and an intrusive government inspired by misguided physicians meaning to do good. He used the pressure for mandatory continuing education as the example for his point.

Academicians and the officious public were concerned whether doctors were competent and felt that they must be able to improve and periodically prove their competencies. Pepper pointed out that neither competence nor incompetence had precise definitions, but like pornography, one can recognize incompetence when he sees it. If competency is related to continuing medical education and if we were to require continuing medical education, then it follows that we must control the quality and establish a bureaucracy to assure that the courses all meet a cer-

tifiable standard. Now in 1999 all of these things are reality, but in 1980 Pepper believed that mandatory continuing medical education was evil and, like the engineers in the movie, he felt that well-intentioned physicians were collaborating in a massive program which ultimately must be destroyed.

He then moved on to quota systems for various ethnic and racial groups and concluded that these were leading us to an oppressive nationalized system of health care. The federal government will tell us who can receive a medical education, what specialty they can enter, where they can practice, and what the character of their practice will be. The doctors who encourage nationalization have good intentions, but the path from good intentions to coercive deeds is short. Organized medicine, through its attempts to improve medical care nationally, will find itself in the antithetical position of cooperating with an oppressive nationalized system of health care. He then put the responsibility for the future of anesthesiology directly in the hands of the members of the ASA by saying, "Anesthesiologists hasten an unsavory future when they set their practices in an exploitative mode, such as by supervising and directing such numbers of nurse anesthetists that neither the patient nor the surgeon has a real choice and both are exploited. Responsibility for the future lies with each individual anesthesiologist, who supports anesthesiology as the practice of medicine by or under the direct supervision of the anesthesiologist."

Pepper's lecture was received with polite applause, but I don't believe that it changed the inevitability of mandatory continuing education, which has become a reality. Pepper's warnings about an oppressive nationalized system of health care still hang ominously over our collective heads. The responsibility for planning the future of the practice of anesthesiology still rests in the hands of members of the ASA. In his remarks about exploitative practice, he did provide some solace for those sincere anesthesiologists and nurse anesthetists who wish to prac-

tice as a care team. And that brings us to his evolving attitude about nurse anesthetists.

Pepper arrived at Parkland Hospital from the Navy in 1946 to find that nurse anesthetists gave all anesthetics. His immediate attitude was gracious acknowledgement of their presence, their skill, and their commitment. He realized that anesthesia was necessary and only the nurse anesthetists were around to give it. His attitude became pragmatic acceptance. As his experience as a surgical resident progressed, he began to assign most of his patients' complications to the faulty judgement and inadequate knowledge of the nurse anesthetists, and his attitude changed to condescending toleration. His work in the ASA made him aware of practice situations where anesthesiologists were supervising large “stables” of nurse anesthetists in order to gather large incomes. This type of practice excluded the entry of other anesthesiologists and Pepper felt that it exploited both the patient and the surgeon. Pepper's attitude became forgiving opposition. As president of the ASA, Pepper was confronted with an increasingly militant national organization of nurse anesthetists, which sought an expanded scope of practice and increased independence, and he became an obstinate adversary. He expressed his position in an article written for Eckenhoff's *Controversy in Anesthesiology*.²⁴ The article deals specifically with regional anesthesia but in it Pepper expressed his feelings that nurse anesthetists had insufficient education or training to be making independent medical judgments related either to regional or general anesthesia. He maintained this obstinate adversarial attitude until his death.

His attitude had a profound practical effect on the character of the clinical service at Parkland Hospital. The nurse anesthetists at Parkland when Pepper came were gradually lost through natural attrition but were not replaced. Residents were added to provide the clinical care previously attributed to the nurses. The department became an all-M.D. service, boasting reduced mortality and morbidity and displaying great pride in its lofty



Figure 39. Pepper Jenkins receives the Max Cole Award of the Dallas County Medical Society in 1990. (PHOTOGRAPH COURTESY OF THE DALLAS COUNTY MEDICAL SOCIETY.)

achievement. Pepper consistently resisted any proposal to introduce nurse anesthesia into any facet of the practice at Parkland. He refused to participate in the training of nurse anesthetists, feeling that enough candidates were available to fill the residency and dreaming that some day sufficient anesthesiologists would be trained to replace nurse anesthetists both statewide in Texas and perhaps nationwide. Now we realize that Pepper's

glorious dream can never become reality and that anesthesiologists and nurse anesthetists must work together as a team for the good of the patient and the clinical service of the hospital.

If you have read this far, you have a feel for Pepper’s energy, his enthusiasm, his achievements, and his greatness as a man, but not the reality. To discover his powerful charm you would have to shake his hand and feel its warm firm grip. You would have to feel the surprised amazement when he recognized and called you by name. You would have to be inspired by one of his elegant, silver-throated lectures. You would have to feel the electricity when he entered a room. You would have to feel the power of reinforcement when he took your side in a controversial issue and, even more important, feel the sense of complete defeat when he sided with the opposition. With Pepper in charge we didn’t even have to ask how the department achieved a “World Class” reputation.

Pepper announced to the dean and the department that he wanted to step down from the chair in 1979. The dean requested that Pepper stay on as interim chairman until a search committee could successfully locate a permanent chairman. The search committee consisted of a mixture of basic scientists, clinical scientists, and clinicians. A nationwide search was started. We all knew that finding a new chairman would be easy, but replacing Pepper would be impossible.

TABLE 1
 ACADEMIC CHAIRS OR VICE CHAIRS OF
 ANESTHESIOLOGY WHO TRAINED OR WORKED AT
 PARKLAND HOSPITAL UNDER PEPPER JENKINS

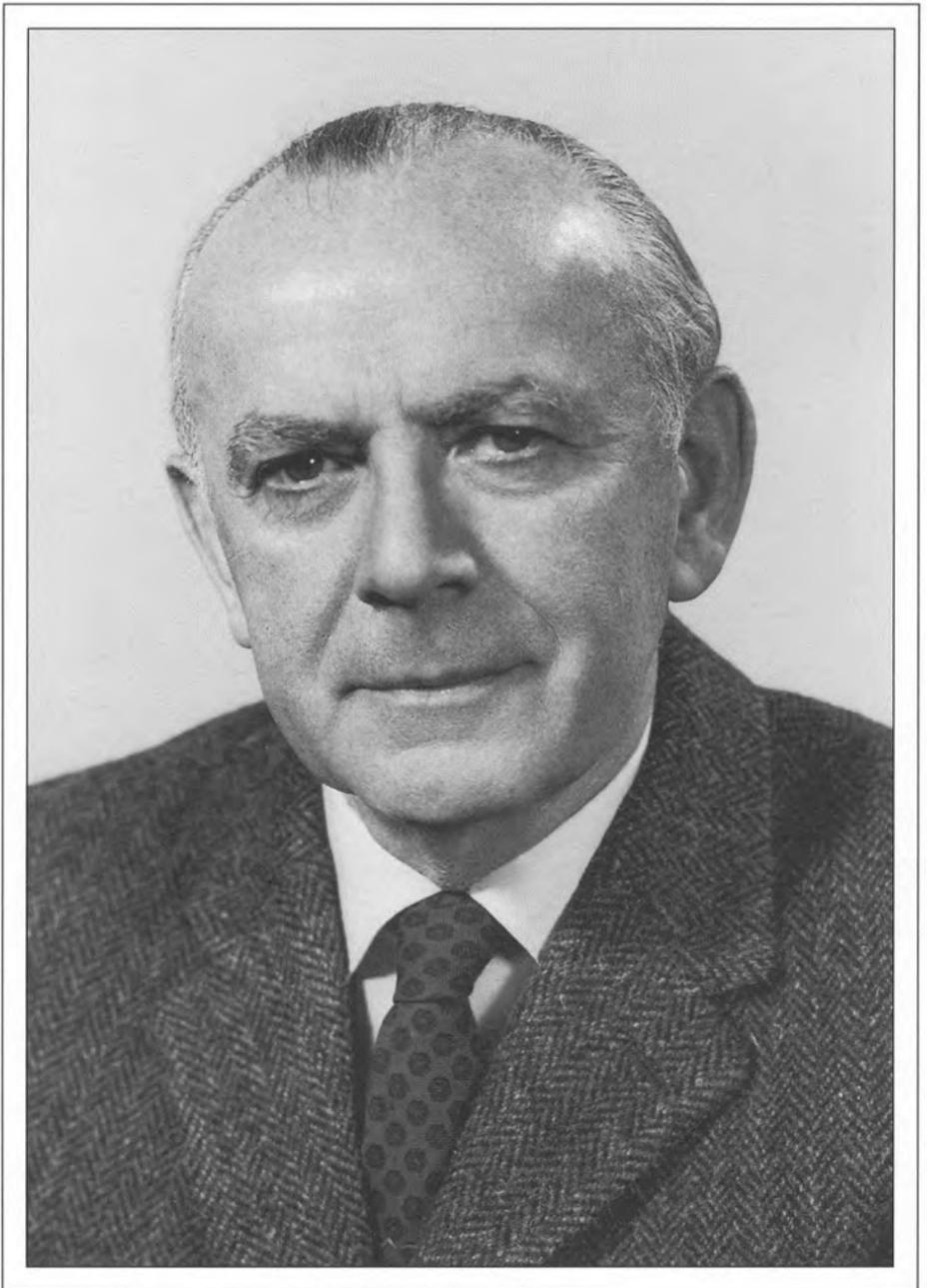
Robert B. Dodd, M.D.	Chair, University of Maryland, 1951-59; Mallinckrodt Chair, Washington University, St. Louis, 1959-70; Chair, University of Southern Illinois, Springfield, 1970-95
Norman James, FFARCS	Chairman, Department of Anaesthetics, Royal Melbourne Hospital, Melbourne, Australia 1954-59
C. Ronald Stephen, M.D.	Mallinckrodt Chair, Washington University, St. Louis, 1970-85
Robert T. Capps, M.D.	Vice Chair, University of Washington, Seattle, 1959-60; President, American Society of Anesthesiologists, 1980
Burnell R. Brown, M.D.	Chair, University of Arizona, Tucson, 1970-96 (deceased 1997)
E. Warner Ahlgren, M.D.	Chair, Texas A&M University, Temple, 1978-93
Adolph H. Giesecke, M.D.	Vice Chair, UT Southwestern, Dallas, 1974-81; Chair, UT Southwestern, Dallas, 1981-92
L. Roy Krumperman, M.D. Robert W. Vaughan, M.D.	Chair, Temple University, Philadelphia Chair, University of North Carolina, Chapel Hill, 1982-96
Prithvi P. Raj, M.D.	Chair, Pain Management Service, Medical College of Georgia, Atlanta, 1989-95
Tsuguharu Ishida, M.D.	Professor and Co-Chair, Emergency and Critical Care Medicine, Hyogo College of Medicine, Hiroshima, Japan, 1995 (deceased 1995)

- Edward R. Johnson, M.D. Vice Chair, UT Southwestern, Dallas, 1985-92 and 1994-98, Interim Chair, UT Southwestern, Dallas, 1993-94
- Robin Elwood, M.D. Chair, University of Oklahoma, 1993-Present
- Jan Peter Jantzen, M.D. Chair, Anaesthesia and Intensive Medicine, Krankenhaus Nordstadt, Hanover, Germany, 1993-Present
- Keiichi Tanaka, M.D. Chair, Emergency and Critical Care Medicine, Fukuoka University, 1993-Present
- Hironori Ishihara, M.D. Vice Chair, Anesthesiology, University of Hirosaki, Hirosaki, Japan, 1990-Present

REFERENCES

1. Siker ES: Obituary, M. T. Pepper Jenkins, M.D., JAMA 1995;273:669.
2. Giesecke AH: Introduction to Pepper Jenkins Festschrift. Seminars in Anesthesia. 1988;7:1-3.
3. Garvey RF, Baxter CR, Jenkins, MT, McClellan RN: *Surgery, The First Fifty Years*. Dallas: The University of Texas Southwestern Medical Center, 1993, p. 9.
4. Tandy C: Anesthesia along the Trinity. An address to the Dallas County Anesthesiology Society, March 18, 1993.
5. Jenkins MT: Reunion, Department of Anesthesiology. Dallas: The University of Texas Southwestern Medical School at Dallas, 1974.
6. Chapman JS: *The University of Texas Southwestern Medical School*. Dallas: Southern Methodist University Press, 1976.
7. Jenkins MT: History of sequestered edema associated with surgical operations and trauma. *Contemporary Anesthesia Practice* 1983; Philadelphia: F.A. Davis, 6:1-32.
8. Collier FA, Campbell KN, Vaughan HH, Lob LV, Moyer CA: Postoperative salt intolerance. *Ann Surg* 1944; 119:533-42.
9. Moyer CA, Collier FA, Lob LV, et al: Some effects of an operation, anesthesia, and composition of parenteral fluids upon the excretion of water and salt. *South Surg* 1949; 15:218-47.
10. Jenkins MT, Jones RF, Wilson B, Moyer CA: Congestive atelectasis: A complication of the intravenous infusion of fluids. *Ann Surg* 1950; 132:327-47.
11. Shires GT, Carrico CJ. Current status of the shock problem. In *Current Problems in Surgery*. Chicago: Yearbook Medical Publishers, 1966.
12. Crenshaw CA, Canizaro PC, Shires GT, Allman A: Changes in extracellular fluid during acute hemorrhagic shock. *Surg Forum* 1962; 13:7.
13. Shires GT, Coln D, Carrico J, Lightfoot S: Fluid therapy in hemorrhagic shock. *Arch Surg* 1964; 88:688-93.
14. Lucas CE, Legerwood AM: Hemodynamic management of the injured. In Capan LM, Miller SM, Turndorf H (eds.). *Trauma Anesthesia and Intensive Care*. Philadelphia: J. B. Lippincott, 1991, chapter 4.
15. Baxter CR: Crystalloid resuscitation of burn shock. In Polk HC, Stone HH. *Contemporary Burn Management*. Boston: Little Brown Co., 1971.
16. Three patients at Parkland. *Texas Medicine* 1964; 60:60-74.

17. Breo DL: JFK's death—the plain truth from the MDs who did the autopsy. *JAMA* 1992; 267:2794-2807.
18. Lundberg GD: Closing the case in *JAMA* on the John F. Kennedy autopsy. *JAMA* 1992; 268:1736-8 (editorial).
19. Breo DL: JFK's death, part II: Dallas MDs recall their memories. *JAMA* 1992; 267:2804-7.
20. Posner GL: *Case Closed*. New York: Random House, Inc., 1993.
21. Dodd RB: Down my memory lane, or up yours! *Seminars in Anesthesia* 1988;7:33-7.
22. Dodd RB: *Diethyl Ether: Its Effects in the Human Body*. Springfield: Charles C. Thomas, 1962.
23. Stephen CR, Ahlgren EW, Bennett EJ: *Elements of Pediatric Anesthesia*. Springfield: Charles C. Thomas, 1970.
34. Jenkins MT: Nurse anesthetists should not administer regional anesthesia. In: Eckenhoff JE (ed). *Controversy in Anesthesiology*. Philadelphia: W. B. Saunders Co., 1979.



Francis F. Foldes, M.D., (1910-1997)

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AN AUTOBIOGRAPHY

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PREFACE

I relinquished the Chairmanship of the Department of Anesthesiology at Montefiore Medical Center/Albert Einstein College of Medicine in 1975. Freed of administrative chores, my energies could be directed to laboratory and clinical research. After observing the feverish activity going on in my laboratory, my former resident, associate, and successor as Chief of the Anesthesiology Department at Mercy Hospital in Pittsburgh and lifelong devoted and supportive friend, E.S. Siker, remarked, "I see that in your retirement you are running into the sunset." In the last few years, however, I realized that age is catching up with me and, instead of running, I am limping into the sunset. My memories of the past have gradually become less vivid, and wishing to preserve them for my children, grandchildren, and friends, the time had come to do something about it. The invitation of my friend, Raymond Fink, to write an autobiography supplied the necessary impetus to get me started.

The first 31 years of my life, spent in Hungary, encompassed the last few relatively peaceful years before the catastrophe of World War I and the political, moral, and economic upheaval of the 20-year period between World Wars I and II. My life during this period exemplifies the trials and tribulations of a middle-class Jewish boy, fighting against almost insurmountable odds to overcome the obstacles created by virulent anti-Semitism, ultimately to fulfill his lifelong dream and become a physician.

The remainder of my long life has been spent under completely different circumstances in the United States. A chain of events beyond my control diverted me from internal medicine to anesthesiology. I had the unique opportunity to witness and participate in the explosive development of anesthesiology which made possible the undreamed of achievements of surgery during the second part of the 20th century.

The initial section of this reminiscence deals primarily with matters not related to my life and activities as an anesthesiolo-

gist. The latter section will be devoted to my experiences in the specialty.

All my life, awake and in my dreams, I have been haunted by the tormenting question: why was I spared from the horrors of the Holocaust when three beloved brothers and the majority of my classmates in the 1928 graduating class of the Jewish Gymnasium in Budapest perished without a trace, in their prime of life. To preserve my sanity, I had to believe I survived to be able to help others, just as I have been helped, through the grace of providence and by many people to escape, with my wife, the cauldron of Central Europe in the middle of World War II.

My story is told without embellishment. The only constraint I will place on my narrative will be: *De mortuis nil nisi bonum*, of the deceased only good should be said.

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Ephraim S. Siker, M.D.

FRANCIS F. FOLDES, M.D. AN AUTOBIOGRAPHY

Part One LIFE IN HUNGARY

1. EARLY CHILDHOOD, (1910-1914)

I was born on June 13, 1910 in Budapest. My father, Lipót, was a teacher in the elementary school of the Jewish reform community. My mother's name was Nelly. I had four brothers; Miklós, Imre, Béla, and László, who were, respectively, 17, 12, 10, and 8 years older than I. I also had a sister, Margit, who was 18 months younger than I. I vaguely remember, that at first, we lived in a flat consisting of two rooms, a kitchen and an inside toilet, all facing a courtyard. We had no bath. I cannot recall the living and sleeping arrangements of the eight people squeezed into this small space but remember that every morning we had to wash in cold water at a sink in the kitchen and that we had our weekly baths in a tin tub filled with water heated on the cooking stove. When I was about three years old, we moved to a much larger apartment, which consisted of an entrance hall, a kitchen, a storage room for foodstuff, three large rooms, an inside toilet, and a bathroom. There was only one entrance from

the hall to the first room, and to get to the third room one had to cross the first and second rooms. The bathroom opened from the second room and the toilet from the hall. All week there was only cold water in the bathroom. The coal burning water heater was used only on Saturday evenings when everybody had a warm bath. This process lasted until midnight. After we moved to this apartment, my mother was able to hire a live-in-maid, who slept in the kitchen on a folding bed. The maid got up at 6:00 a.m., polished everybody's shoes by 7:00 a.m. and seldom got to bed before 10:00 p.m. For this she received board and the equivalent of two dollars a month. She had every Sunday afternoon off. My mother did all of the cooking. She made her own bread, one round and one oval loaf weighing together about 20 pounds, every Monday and Thursday. The unbaked loaves were taken to the neighborhood bakery. The baker placed a numbered paper sticker on each loaf and gave the customer identical numbers. In the afternoon, we came back with the numbers and reclaimed our loaves. It was the most delicious bread I ever tasted in my life. On Fridays, my mother also made *chaleh*, which was baked in the oven of the coal-fed cooking stove. We also had an icebox into which we placed one large slab of ice bought from an ice vendor who came around daily. We all received clean underwear twice a week. Personal laundry was washed bi-weekly in a common laundry room in the basement of the apartment house. The clean laundry was carried up to the attic of the apartment house, where each family had a separate partition for drying laundry. Every six weeks a washerwoman came to do the "big laundry," such as bed clothes, table cloths, napkins, etc. The carpets were cleaned by placing them on a special stand in the courtyard and beating them on both sides by a carpet beater.

2. WORLD WAR I, SOCIALIST REVOLUTION, FIRST COMMUNIST REGIME, COUNTERREVOLUTION, (1914-1920)

Outwardly, the last few years before the outbreak of World War I were perhaps the most peaceful the world had ever enjoyed. Except for the two Balkan Wars, there were no major confrontations anywhere. The first was in 1912 between the disintegrating Ottoman Empire and Serbia, Bulgaria, and Greece, wanting to enlarge their territory at the expense of Turkey and to solidify their independent statehoods. In 1913, when Bulgaria claimed more territory than their neighbors believed justified, Serbia, Romania, Greece, and Turkey attacked and defeated Bulgaria.

But behind the scenes conflicting national aspirations threatened the peace of the world. What finally precipitated the chaos of WWII was the Pan Slav movement, which aspired to unite the South Slavs of Slovenia, Croatia, Bosnia, and Herzegovina (at that time all parts of the Austro-Hungarian Empire) with Serbia and Albania. This movement was supported by Russia, which for centuries had sought an outlet to the Mediterranean Sea. Germany felt surrounded and threatened by the *Entente Cordiale* consisting of France, England and Russia. On June 28, 1914, in Sarajevo, a young Serb nationalist murdered the heir to the Austro-Hungarian Empire. Serbia, at the instigation of Russia, rejected the Austrian ultimatum for the extradition of the murderer. Austria-Hungary declared war on Serbia and the dominoes began to fall. Russia declared war on Austria-Hungary; in response, Germany declared war on Russia on August 1st and on France on August 3rd, and England declared war on Germany on August 4th.

At the time of the outbreak of hostilities our family was vacationing in northeast Hungary at the home of my maternal grandmother. The family immediately decided to return to Budapest. It was a long, strenuous journey by train because most of the lines were reserved for military traffic moving toward the

Russian front. The military trains consisted of freight cars marked "40 persons or 8 horses." Many trains carried the famous Hungarian cavalry, the "Huszárs," also called, because of their red breaches, "Red Devils." The enthusiasm for the war among the soldiers and the population was enormous. People bringing fruit, flowers, and wine crowded the stations. I vividly remember a scene when a peasant attempted to throw a huge watermelon into the outstretched hand of a soldier but missed, and it splattered into many blood-red pieces on the side of the train.

The enthusiasm did not last long. The huszárs, with drawn sabers, attempting to charge well-concealed Russian machine gun emplacements across open fields, were mowed down by the hundreds.

My elementary education began at age six, in the third year of the war and in the same school where my father taught. In the morning, my father and I walked together about one mile to the school. Since school ended at 1:00 p.m., my father had time to tutor private students in their homes in the afternoon. This supplemented his meager salary. I walked home alone and had to cross two street car lines, but nobody seemed to worry that I could not negotiate this safely.

Elementary school lasted four years. The same teacher taught all classes except for music, drawing, and gymnastics. Classes were not coeducational, although I had a female teacher. My father taught a class one year ahead of me. Classes lasted 50 minutes with a ten-minute intermission between them. At the 10:00 a.m. intermission, I always had to go to my father's classroom to wash my hands before eating my midmorning snack, which was invariably two slices of homemade bread spread with goose fat. My midmorning fare remained unchanged until I completed medical school at age 24.

Not infrequently, when I arrived in my father's classroom, there was some mathematical problem on the blackboard his class could not solve. My father asked me to solve it, which I

was usually able to do. My father must have felt proud, but he never indicated it by word or gesture.

Our home was a somber one. Both my father and mother were chronically overworked and tired. My father had gastrointestinal problems all his life. He never weighed more than 110 lbs. and was kept on a strict diet, consisting of bland food, containing an inordinate amount of fat. My mother kept a “kosher” home. Twice a week, from the end of July until the end of December, she bought a live, artificially fattened goose weighing 20 to 25 lbs. on the open market. The thick subcutaneous layer of fat was rendered, stored in large metal containers, and used until the following summer. It never became rancid and was the only shortening used in our home, except for butter at breakfast or when we had a “non-meaty” meal for supper. The fat in which the liver was grilled was a special delicacy, used exclusively as a spread for the midmorning snack. There was enough *greaves* (crackles), supplemented with a piece of grilled liver and mashed potato for two meals. The meat of the two geese was our main source of protein. My mother was an outstanding cook who made fabulous meals out of simple ingredients. The always hungry, growing boys could each consume six to eight strudels at the end of a meal. All through summer and early autumn, when food was plentiful and relatively cheap, a large variety of fruits and vegetables were preserved to last the whole year. At the height of its season, we bought and transported home as much as 200 lbs. of tomatoes from the market. The tomatoes were boiled down into a thick sauce and filtered into quart bottles. The open bottles were pasteurized in a large cauldron, corked, and sealed with pitch. My mother also made plum and apricot jam, cherry, sour cherry, apricot, plum, pear, and peach preserves and, canned in glass jars, green beans and pickles. At the end of summer, with my brother Béla, we walked 10 to 12 miles to the hills surrounding Budapest and collected knapsacks full of mushrooms. These were sliced, threaded on long strings, and dried to be used throughout the year.

As long as milk was available, we had coffee mixed with chicory to make the expensive coffee beans go further. This and bread spread with butter or jam was our morning meal. Later during the war and for several years thereafter, when milk was unavailable, our morning fare was caraway seed soup made with rue and bread.

While I'm sure that our parents loved us dearly, this love was almost never demonstrated. I don't recall ever having been kissed or cuddled. Our parents' energies were exhausted by trying to make ends meet and providing us with all the necessities, like ample food and respectable, clean clothing. Only one room was heated by an iron stove, and in winter we all sat around a large table, lit by a kerosene lamp, and did our respective tasks. We all had to keep quiet in order not to disturb the others. We slept in unheated rooms, covered by thick comforters.

As children we never had any purchased toys. My brother Béla, who was very clever with his hands, made balls from rags, tightly encased in a web of string. He also made wooden propellers attached in the center to a wooden rod. When twirled between the two palms and suddenly released, they flew in the air 30 to 40 feet. We also had a chess set and, from the age of five, I frequently played chess with him.

I don't remember my parents buying any chocolate or candies. There simply was no money for such luxuries. The only time we had any sweets was during the Jewish festival of joy, "Purim," when, year after year, a grateful, well-to-do parent of a former pupil of my father sent us a large box filled with candy and candied fruit. This was doled out one piece at a time after the main midday meal and lasted a long time.

Frequently, toward the end of the month, my mother, who handled the family finances, ran out of money and my father had to go to the treasurer of the Jewish community and ask for an advance on his next month's salary. He found this a very humiliating and distressing experience, but there was no choice; the children had to be fed.

I was very small and thin for my age, but intellectually precocious. I attribute this to my close contact with my considerably older brothers, especially Béla, who in spite of the ten-year age difference between us, spent all his free time with me. By age six I could read Hungarian fluently. This is not such a great feat as it sounds because, in Hungarian, every vowel and consonant is only pronounced in a single way.

My family was extremely patriotic, and in the early years of the war, when the Germans with the help of their allies (including Hungary) appeared to have the upper hand on all fronts, their enthusiasm and belief in victory was high. Any report of another ship sunk by German submarines or a daring “Zeppelin” raid over London was cause for celebration. Later, especially after the United States entered the war, public enthusiasm started to fade. The socialist opposition to the government steadily gained strength, and after the military surrender of Germany and her allies on October 31, 1918, a bloodless revolution brought Count Mihály Károlyi to power. On the 9th of November, Kaiser Wilhelm’s abdication was followed by that of Charles I, Emperor of the Austro-Hungarian Empire. Germany, Hungary, and what was left of Austria then became republics.

The first president of the Republic of Hungary, Count Károlyi, was an idealistic visionary with liberal ideas who attempted to establish real democracy in Hungary. However, he was unable to stand up to the flood of events. Hungary was attacked from three sides by Czechoslovakia, Romania, and Yugoslavia, which together were granted two-thirds of the former Hungary by the peace treaty of Trianon. For a while, before they withdrew under international pressure, Romanians occupied even Budapest.

I vividly remember waking up one morning and seeing from the window Romanian soldiers manning a machine gun facing our apartment house. As the invasion of Hungary progressed, the communists ousted Count Károlyi’s government and early in 1919 set up a soviet-style regime in Hungary headed by Béla

Kun. His terrorist rule, however, lasted only a few months and was defeated by a counterrevolution organized by two groups of former army officers, one in Vienna and the other in Szeged, at the time the second largest city in Hungary. By 1920 Hungary again became a monarchy without a king, headed by Admiral Horthy, the last commander-in-chief of the Austro-Hungarian navy.

3. THE AFTERMATH OF WORLD WAR I, MY YEAR IN ENGLAND, (1920-1921)

During the short-lived communist regime the peasants did not recognize the new currency and refused to sell their crops and produce. Except for a meager ration of poor quality bread, for some incomprehensible reason, only vegetable marrow (large pumpkins weighing as much as 20 lbs) and barley could be purchased. We existed on this austere diet through the months of the communist regime. I will never forget one evening when my youngest brother, László, said he was hungry after supper and asked for another piece of bread. There was none. That was the only time I remember seeing my mother break down and cry.

The food situation improved somewhat when the army officers' counterrevolution expelled the communists. In many other respects, however, the situation became worse. There was galloping inflation, and the value of Hungarian currency, the "korona," dropped precipitously. By 1926, when a new currency, the "pengő," was introduced, 12,500 korona was converted to 1 pengő, at that time equivalent to 20 American cents.

The situation was especially bad for Jews. Unfortunately, some Jews occupied prominent positions in the short-lived communist regime and this was used as an excuse by the advancing counterrevolutionaries for the institution of pogroms in the provinces, which took the life of several hundred innocent Jews. Anti-Semitism became the official program of the first government organized by the counterrevolutionaries. The parliament instituted the first "Jewish Laws," among them the "Numerous Clauses," which limited the number of Jews allowed to enter Hungarian universities to 5 percent of the student body. Several political parties and societies were organized whose main *raison d'être* was anti-Semitism.

In an attempt to alleviate the suffering of some of the undernourished children, an international organization called the

“White Cross” started to transport groups of children primarily to Holland and England, where they spent 6 to 12 months with families who volunteered to accept children in their homes. When I learned of this possibility, I tried to convince my parents to allow me to apply for inclusion in a group scheduled to go to England in the early summer of 1920. My parents were reluctant to be separated from me for such a long period. After many long discussions about the pros and cons of such an “adventure,” and with the help of my older brothers, I was able to wrest a reluctant agreement from my parents.

Sometime in August, after several disappointing delays when it appeared that the trip might be canceled, our group of 500 to 600 children, 9 to 11 years of age, was taken by train to Holland and a few days later by boat to England. I still remember our first meal in Holland, which consisted of a large piece of meat loaf, mashed potatoes, vegetables, and an orange. It was the first decent piece of meat I had in several months and never before in my life had I tasted an orange. In England we spent several weeks in an unused military camp waiting to be picked up, one by one, by the families who volunteered to take us.

I was adopted by the Bernstein family who lived in Golders Green, a London suburb inhabited mostly by middle-class Jews of comfortable means. Golders Green was northwest of London, surrounded by Hampstead, Finchley, and Hendon. Mr. Leonard Bernstein had emigrated from Russia to England at the end of the 19th century and became a fur coat manufacturer and wholesaler. He was a short, stout man with a very erect posture, always cheerful, optimistic, and kind. He never learned to read or write English, and I remember that all checks were signed by his wife. Mrs. Bernstein was the opposite of her husband in every respect. She was a thin, dour lady who never smiled, and her opinion and will prevailed in all family matters. They had four sons: William, Jack, Philip, and Arthur (Bubbles) and four daughters: Sissie, Bessie, Tilly, and Fay. William, the oldest, was already married and Philip was married during my stay with the

family. Arthur, although only seven at the time, was away at boarding school and only home at vacations. Of the boys, Jack paid the most attention to me. Saturday afternoons he sometimes took me to the local movie theater and occasionally gave me a few shillings pocket money. Every Friday evening and Saturday morning, I walked with Mr. Bernstein to the synagogue. Since religious Jews were not supposed to have any money on them on “Sabbath” Friday nights, Mr. Bernstein used to put all the change he had with him on the top of a tall cabinet in the entrance hall of the synagogue. I was allowed to retrieve it Sunday morning and keep it all, or share it with Arthur when he was in town. Of the daughters, Sissie, married to a Belgian Jew, Mr. Dorfgar, was the kindest to me. Tilly, who at that time was about 16, was a typical “flapper.” She had a strong personality and came and went without paying much attention to the rest of the family. Unfortunately, the youngest daughter, Fannie, died of a brain tumor during the middle of my stay there.

A day after arriving in London I picked up a nice-looking piece of paper from the pavement. It turned out to be a pound note. I immediately mailed it to my parents. It was a great sum of money in inflation-plagued Hungary and was a great help to the family.

In September, I was enrolled in a County Council School in Hendon. It was about two miles away in a working class neighborhood. I either walked there or, when I could, I borrowed Arthur’s scooter, which was a great treat for me. The boys in my class were a rough bunch. I only spoke a few words of English at that time and was the smallest boy in the class. In my strange-looking clothes, I must have been a queer apparition to these boys who had never seen a “foreigner” before. They expressed their displeasure by picking fights with me in the intermissions. I often went home with a bloody nose or a black eye. Gradually, however, I mastered “the manly art of self defense” and was able to dish out some bloody noses and black eyes myself. This

earned the respect of my classmates, and later when I excelled in sports, I became quite popular.

Scholastically, I did very well, learned English rapidly and by December, much to the admiration of our teacher, I was at the top of the class. When the time came to leave, the principal of the school wrote a letter to my father in which he predicted a brilliant future for me. I tried very hard to live up to his expectations, and if I failed, it was not for lack of effort.

4. THE HIGH SCHOOL YEARS, (1921-1928)

When I returned to Budapest from England in July of 1921, I could hardly speak Hungarian. The family decided that, in order not to lose a year, I should take a comprehensive exam in all the subjects taught in the first grade of the Gymnasium, the Hungarian equivalent of high school, and enter the second grade in September. It was a formidable task to accomplish in six weeks. I could not have done it without the devoted help of my brother Béla, who spent the long, hot summer days tutoring me. I had special trouble with the languages, Hungarian, German, and Latin. The latter was taught for eight years, five hours a week. I passed the exam and entered the second of the eight grades of gymnasium. Except for mathematics, history, and geography, I was a mediocre student and had a hard time making up for the lost first year. Contracting scarlet fever shortly after matriculating made it more difficult.

Ten years later, when I attended medical school, it was still the practice to keep patients who had developed nephrosis following scarlet fever on low protein diets. The urine was “treated” instead of the patient. Failure to replace the lost protein surely contributed to the early demise of those patients.

The high scholastic standards at the Jewish Gymnasium placed it among the top high schools in Budapest. Its main rival was the Evangelical Gymnasium, whose pupils, at about that time, included John von Neumann, Jenö Wiegner and Leo Szilárd. Von Neumann later became a professor at the Massachusetts Institute of Technology and is considered the father of the computer, and all three together with Edward Teller contributed significantly to the construction of the atomic bomb.

Most of our teachers would have been university professors, were it not for the “Jewish Laws” which made it very difficult for practicing Jews to teach or do research, even in minor positions at Hungarian universities. The restriction did not apply to converted Jews, many of whom were full professors and

department heads. Some of them, like the famous father and son internists, Frigyes and Sándor Korányi, were made Barons by Franz Joseph, the emperor of Austria and King of Hungary.

I am still exceptionally grateful to our mathematics professor, Kálmán Biro, who taught me the importance of logical reasoning, and to our physics professor, Dr. Benő Strasser. Another mathematics professor, Mihály Fekete, immigrated to Israel in 1928 and became Professor of Mathematics and later Rector of Hadassah University in Jerusalem.

I also remember, with deep gratitude, the role played in my development by our gymnastics teacher, Zoltán Dückstein. At that time he was in his early thirties, an excellent gymnast who competed on the international level. He was also a gifted linguist who spoke German, Dutch, and English fluently. He was so indispensable to Hungarian gymnastics that despite the restrictive Jewish laws, he was selected to accompany the Hungarian gymnasts as a coach, judge, and interpreter to the Amsterdam (1928), Los Angeles (1932), and Berlin (1936) Olympics. He had the satisfaction that István Sárkány, one of his former students at the Gymnasium, was a member of the 1936 Olympic team.

Before starting the fifth form in 1925, I realized that I needed top grades in order to be among the 5 percent of Jewish students admitted to Hungarian universities. I approached my professors one by one and asked them to be extra strict and demanding with me. The strategy worked and my report card at the end of the second semester consisted of all A's.

During that year, I also started to grow rapidly; my height continued to increase up to my 22nd year when it reached 172 cm., considered middle-height for Hungarian males at that time. At the urging of Professor Dückstein, from age 14 on, I devoted much time to various sports. I excelled in gymnastics, fencing, and middle-distance running. At the end of the year, as a trophy I received a pocket watch, with the inscription *To The Best Athlete*. This watch has an interesting story. In the Spring of 1942

when I worked as a Research Fellow in Professor Beecher's laboratory at the Massachusetts General Hospital, I had permission to use the Harvard boats on the Charles River. One cold April Sunday I was returning, in a single scull, to the Veldt boathouse when I collided with a heavier boat going upstream on the "wrong side" of the river. My boat capsized and a small plastic bag containing my "valuables," including the watch, went to the bottom. I was about 50 feet from the shore and the water was very cold. My main concern was the expensive boat and the oars. Fortunately, the shore was flat at that location. I managed to tow the boat out, get it upright, emptied most of the water, and got back to the boathouse, shivering and exhausted, but without any damage to the boat. The only consequence of the accident was, that from then on, I was only allowed the use of heavier, more stable boats. I often wonder what kind of theories the archeologists will make up to explain the presence of a pocket watch with a Hungarian inscription in the mud on the bottom of the Charles River, when in 2500 AD the course of the river will be diverted to make room for some sophisticated project.

By age 11 I was a very busy young man. In order to make some money to help my family when I returned from England, I started to teach English to adults. Until the end of World War I, the dominant second language in Hungary was German. After the end of the war, people realized that the international language of the future would be English. Many middle-class people in the professions and business wanted to learn English, but there were few who could teach it. It must have been funny to see a boy, less than five feet tall, in short pants, coaching adults with the help of a Berlitz reader and correcting the homework he assigned to them. I also tutored younger students of wealthy parents. In the last year of high school, I helped to prepare several of my classmates for the dreaded *matura*. This was a comprehensive written and oral examination which covered all the material taught during the eight grades, from 10 to 18 years of age. It was a serious affair, supervised by an official assigned by

the Ministry of Education. These officials graded all the written tests, were present at the oral exams, and were allowed to ask questions. The high school curriculum in Hungary was very demanding. In my opinion, the level of knowledge in mathematics, physics, world history, history of literature, art, and geography was the same or higher than that of the average American college graduate not specializing in any of these subjects. The *matura* exam required not only good memory and recall, but also the ability to reason. I continued to coach high school students all through medical school.

By 1926, when the Hungarian currency became stabilized and inflation ended, life became somewhat easier. By then my two oldest brothers were married and were on their own. There were fewer mouths to feed, and my brother Béla, who by that time graduated from Technical University and was a civil engineer, was able to help financially. The next few years, until the great depression hit, were the most enjoyable of my youth.

During the summer of 1926, I again had the opportunity to visit England for two months. The same organization that made it possible for many Hungarian children to spend 6 to 12 months in Holland or England undertook to transport a train-load of children, who were invited by their former hosts, as far as a French port. By that time Mr. Bernstein, my host, had immigrated with his wife, oldest daughter, and her husband to Palestine. Their son Philip, however, invited me to stay with his family. I had to provide for my own transportation from Calais to London and back. This was a problem, because obtaining foreign currency for travel was almost impossible at that time. My brother Miklós gave me three pounds, enough for the fare from Calais to London and back. I spent the time in London, wandering about the city and spent many days in the British Museum and other museums and art galleries. Philip very generously gave me a few pounds which was enough for subway and bus fare and for my invariable lunch of “fish and chips,” which at that time, together with a cup of tea, cost 6 pence, about 12 cents. I

could not resist the temptations of the “Fifty Shilling Tailors,” a clothier on Oxford Street, and bought a gray suit with two pairs of pants for the advertised amount. I had, however, miscalculated my finances and when the time came to go to Calais and meet the train for Budapest, I found that I did not have enough money for the fare. I was too proud to ask for money from anybody and was desperate. I had nothing of value to sell and didn’t know what to do. But here again, like so many times in my life, when I did something foolish or when I was threatened by circumstances beyond my control, providence intervened. When I went to say goodbye to the two eldest Bernstein brothers, William and Jack each gave me a pound. This was more than enough for the fare. You can imagine my relief.

This is as good a place as any to relate my further relationship to the Bernstein family. In 1948 when I first went back to Europe to visit those of my family and friends who survived the Holocaust, I met Philip and his family in London. In 1960, on a trip around the world, my wife and I stopped in the Dan Hotel in Tel Aviv. One morning, when we came down for breakfast, I noticed an elderly gentleman talking with animation to some people. I told Edith, “This is Mr. Bernstein.” Edith told me I must have had too much sun and that I was hallucinating. Undaunted, I went up to the gentleman and said “Hello, Mr. Bernstein.” I recognized him after 40 years, primarily because of his erect, military stance, about which he was always particular. Naturally, he did not connect the 11-year-old Hungarian boy of four decades ago, with the middle-aged American who accosted him. When I explained who I was, he was overjoyed and in the evening we had a happy reunion with him, his daughter Sissie, and her husband. Mrs. Bernstein had passed away a few years earlier. At that time, my brother Béla already lived in Israel and I visited him yearly. This made it possible to see Mr. Bernstein and Sissie and her husband for a few more years until they died.

This is a good place to talk about two other topics: my vacations spent in Szeged with my aunt on my father's side; and my early, I hasten to add, platonic relationships with the fair sex.

From age 12 to 16, I spent my summer vacations in Szeged with my maiden aunt Cecilia, a soft-spoken lady who earned her living as a custom shirt maker. Szeged is located on the river Tisza, near its confluence with the river Maros. It is the second largest river in Hungary and is among the 8 or 10 largest rivers of Europe. Usually, it flowed placidly between its flat banks, but periodically in the spring, when the snow melted in the Karpathian Mountains, it caused devastating floods. I spent most of my time in a wooden swimming bathhouse floating on the Tisza. Every day about 2:00 p.m., a paddle-wheeler used to pass by going slowly upstream. Ten to 15 of us youngsters used to swim close to the boat, caught on to the sides of a wooden life boat attached with a thick rope to the steamer, and allowed ourselves to be pulled up to the confluence of the Maros and the Tisza. We frolicked around among the strong whirlpools that used to drag us down deep to the muddy bottom. Once down we kicked ourselves sideways and came up panting for air some distance from the funnel of the whirlpool. It was not exactly the pastime our parents would have approved of, but they were not there to watch us. After a while we drifted down river the three miles back to the bathhouse. We had several long, thick walled, wooden canoes capable of holding eight to ten boys. We used to play war games, the objective of which was to capsize the opposing boat. The games ended when one of the boats was turned over. The losers were faced with the task of righting their boat and getting it back against the current to the bathhouse.

Many years later, when she was too old to work any longer, Aunt Cecilia moved in with my parents. She outlived both of them, survived the war, the persecution of the Jews by Nazis and their Hungarian counterparts, the "Arrow Cross" party, and the siege of Budapest. She died just before the 1956 Hungarian

revolution, when my sister and her husband immigrated to the United States.

The year I returned from my second sojourn in England, dancing classes were organized for students of the Jewish Gymnasiums for Boys and Girls. The classes were held every Sunday afternoon from 5 to 7 p.m. The girls wore their best finery and the boys who could afford it wore charcoal gray pants and black or dark blue jackets, a “uniform” made popular by Edward, Prince of Wales. I could not afford flannel pants and tried to mimic them by wearing the spare gray worsted pants of my “Fifty Shilling Suit.”

Everybody was supposed to have only one dance with every girl. I was very much taken with a sporty and popular blond girl, but I was too shy and inhibited by my inferior outfit to declare my love. She is now a still “sporty” octogenarian lady, with whom I play occasional bridge when I visit Budapest.

Since the institution of the “numerous clauses” in 1921, no additional “Jewish Laws” were enacted until 1938. My oldest brother Miklós could afford to buy a “keelboat,” a stable, but lightweight vessel, with two pairs of oars, rolling seats, and a rudder, that could carry four people. On Sundays we used to row upstream on the Danube 15 to 20 miles, picnicked, and in the late afternoon drifted down the river, one or two of us swimming for miles and listening to a portable gramophone playing in the boat which kept up with the swimmers. There were thousands of such boats out on the river on weekends. They were garaged in dozens of large wooden boathouses on the banks of the Danube just north of the city.

Because of my prowess in sports, I became very popular in school. I had some moderate success in interscholastic gymnastics, saber fencing, and especially in track and cross-country races. The latter became very important to me after I entered medical school.

Our form master, Professor Widder, planned a six week trip to Egypt, Palestine, and Greece after the matura exam. The cost

of the carefully budgeted trip came to 800 pengö, at that time \$160. It was decided already in the 6th grade of gymnasium that the class as a whole would start to save the income from various functions to subsidize part of the expenses of the planned trip for a classmate who otherwise would be unable to participate. The lucky boy was to be selected by secret vote. I was delighted to learn that I was the lucky winner by an overwhelming majority. By that time the money collected by the class came to 400 pengö. However, I had to come up with the other 400 pengö to be able to participate. Fortunately, at just about that time, I learned that I had received a State Scholarship of 800 pengö, retroactive to my last year in the gymnasium, and was able to participate in the trip. Incidentally, I received the same stipend all through my medical studies.

Late in June our group left by 3rd class rail to Trieste, where we embarked on a 3,000-ton boat for the three-day trip to Alexandria in Egypt. Our budget did not allow the luxury of a cabin, and we slept on board with our knapsacks under our heads, covered with our raincoats. We ate the provisions we brought along from home. After a day or two in Alexandria, we went by train to Cairo. We stayed at a cheap, not-too-clean hotel, and throughout the day we took in the sights of Cairo and its environs. We spent hours at the exhibit of the recently discovered Tutankhamen treasures. We visited the Sphinx and the pyramids.

From Cairo we went by bus to Tel Aviv. There we rented an open truck with a Sabra driver. We spent the next four weeks exploring all the biblical sites, listening to the scholarly commentaries of Professor Widder. It was an unforgettable experience, although not a very relaxing one. There was considerable tension between the Jewish immigrants, who by that time had established many rural settlements, “kibutztes,” and made Tel Aviv a flourishing town. The British, who at the time occupied Palestine, did little to protect the Jewish minority from the armed attacks of the Arabs. The Jews had to learn to fend for themselves. On one occasion our truck ran into a roadblock of boul-

ders and tree trunks concealed around the curve of a narrow dirt road and turned over. Fortunately, no one was hurt seriously and no Arab attack followed. We righted the truck, removed the roadblock, and continued on our way.

Whenever possible we stayed at kibbutzes, sleeping in barns, lying on sweet smelling hay. I especially remember staying at the kibbutz of Transylvanian, Hungarian-speaking Jews. They received us with the most generous hospitality and gave us a sumptuous meal. One of the kibbutzniks was a 16-year-old girl, with beautiful blue eyes whom I was especially reluctant to part from. I often wondered what happened to her in the course of the great struggle to establish Israel. Our last stop in Palestine was Haifa. From here we went by boat to Piraeus and spent a few days in Athens, admiring the remnants of the splendors of ancient Greece.

On our way home we hit another roadblock on the Greek-Yugoslav border. When we left on our trip, Hungarian citizens did not require a transit visa to travel through Yugoslavia. However, while we were gone, the political situation between Hungary and Yugoslavia deteriorated, and one of the new regulations was the requirement of transit visas. We had no money left to pay the visa fees and were kept confined to a room with a few chairs and no food or water for 24 hours. We could only proceed on our way when funds had been wired from Budapest for the visa fees. The incarceration did not dampen our spirits too much, as we had so many experiences and impressions to discuss.

Shortly after returning from my trip, I was notified that I had been admitted to the University of Budapest Medical School. I was overjoyed because I could not envision any other profession than medicine for myself.

5. THE MEDICAL SCHOOL YEARS, (1928-1934)

In September, 1928, I entered the Medical School of the Péter Pázmány University of Budapest, full of enthusiasm and idealism. The University was founded by Cardinal Pázmány in the 17th century. As was and still is the custom in many European countries, students started their medical education at age 18, fresh out of gymnasium. The omission of the college years was possible, partly because the students received much of the equivalent of American college education in the gymnasium and partly because subjects such as chemistry and physics were taught together with gross and microscopic anatomy, physiology, biochemistry, and genetics during the first two years. Physics and chemistry for medical students and prospective Ph.D.s in these disciplines were taught by the same professors, in the same class.

The medical school and the various clinical departments were scattered on three campuses separated by several miles. While there was only one department for the basic sciences, there were two and sometimes three for the clinical disciplines. The students were free to select the department of their choice. The popular departments sometimes had five to six times as many students as the less popular ones. There was a price to be paid for this freedom of choice. The final oral examination was always given by the Chairman of the department. When there was more than one department, the students were equally divided between all the Chairmen. If you had bad luck, you were assigned to another professor than the one whose lectures you had attended, which could be an unpleasant experience, especially in medicine. The head of one of the departments, Baron Kéthly, inherited the chairmanship from his father, and had symptoms of a fairly advanced stage of dementia. I was assigned to him for my final examination. He invariably asked questions, randomly selected, from a little black book, which was several decades old. This would not have been a problem, except that many of the answers, also listed in the book, were outdated or

incorrect. The only way to pass an examination given by him was to take an expensive course from one of his assistants, who had a copy of this book, and learn the wrong answers listed in it. I had attended the lectures of Baron Korányi, who at that time was a world renowned expert in the physiopathology of renal disease. He, by the way, also succeeded his father in the chairmanship. I was greeted by Professor Kéthly with the statement, “You never studied medicine; you only had lectures on one version of renal disease.” Despite this inauspicious beginning, the examination proceeded well. I gave all the “correct” wrong answers and he terminated the exam saying “You are so well prepared that you should be exhibited in a zoo.”

A few days after the start of my first semester, a few shouts could be heard from the top of the large, amphitheater-like lecture hall: “Out with the Jews!” Since 1921, this had been a regular occurrence. These demonstrations were organized by members of an anti-Semitic student organization called the “Turul Society.” Turul was a mythical bird that, according to legend, guided the migration of the seven Hungarian tribes from the Ural-Altai region, on the border between Europe and Asia, to the site of pre-World War I Hungary they occupied in 896 AD. To avoid recognition, the demonstrators at one faculty always came from another faculty. Thus, for example, law students demonstrated at the philosophy or medical faculty and vice versa. When the demonstrations started, most of the Jewish students stayed away from classes for a few days until the demonstrations ceased. Those who didn’t were beaten up when they left the lecture hall by the hundreds of demonstrators milling outside. The routine was that one of the leaders of the demonstrators stopped the Jewish student, pointed out by his classmates, and demanded that he should identify himself by showing his “Lecture Book.” When he did, his lecture book was torn up and he was savagely beaten as he was pushed and kicked through the multitude surrounding the exit. The police stood by outside the fence surrounding the campus, stating that they could not

interfere because the University had “autonomy.” They seemingly enjoyed the scene. As a “humanitarian” gesture, the authorities allowed an ambulance to park inside the fence.

My upbringing at home and my education at the Jewish Gymnasium did not allow me even to consider staying away from classes. I disregarded the jeers and continued to take notes sitting in the middle of the third row of banks. On the third or fourth day after the “Out with the Jews” yelling started, when I wanted to leave through the main entrance of the chemistry building, I saw that the wide flight of stairs and the area around its bottom was occupied by a howling crowd of over 100 people wearing the uniform cap of the Turul Society. One of them, obviously the ringleader, stepped in front of me and demanded to see my Lecture Book, which incidentally also listed the religion of the student. I knew what was coming and decided to go down fighting. I put my right hand inside my jacket feigning to reach for my Lecture Book and at the same time turned halfway to the right. Instead of the Lecture Book, I withdrew a clenched fist and, putting all my weight behind it, punched the left side of the face of my tormentor. I later learned that I broke his nose and left upper jaw (maxilla). I was instantly pushed and kicked down the stairs, but the throng of people was so thick that I did not fall down. I kept punching and trying to get through the mob, while kicks and blows rained down on my head and back. When I finally emerged, I had in my hands the lower half of a walking stick. My scalp was lacerated in several places, I bled profusely, and later in the evening when I undressed at home, I saw that my whole back and buttocks were covered with bruises and hematomas. The front of my body was unscathed and my most painful injuries were my bruised knuckles.

The young doctor with the ambulance bandaged my head and told me to go home. Instead, I took the streetcar to be on time for the 10:00 a.m. anatomy lecture. I again took my usual place. When he came in, the old Professor Lenhossék, who by the way was related by marriage to the first Hungarian Nobel

Prize winner, Albert Szent-Györgyi, the discoverer of Vitamin C, asked, “What happened to you?” I told him, “I had a minor accident.”

At the end of the lecture, the class proceeded through an underground passage to the dissection room. I started to work on the dissection of the upper extremity assigned to me and another student, when in back of me some people started to yell “Out with the Jew,” this time in singular since I was the only Jew in the room. I turned around, lifted my largest dissecting knife and said “The first person who attacks me gets it in the abdomen and I will continue to use it on all others until I go down.” The shouts continued but nobody approached me. The demonstrations went on for another week, but I continued to attend all lectures without any incident.

About two weeks after the start of the semester, I was approached by Dr. Huszlicska, the President of the Athletic Club of the Péter Pázmány University, the “BEAC.” There was a keen competition in athletics between the BEAC and the “MAFC,” its counterpart at the Technical University. The cross-country season was starting and the BEAC was missing one runner on their team. Evidently, they were aware of my modest accomplishments in high school competition and asked me to join the club. In view of the anti-Semitic trend of all student organizations, I was at first taken aback by this invitation. On later reflection, however, I realized that, in sports, as in love, almost everything is permissible. When it came to international competition in sports, anti-Semitism could be conveniently shelved. Hungarian Jews, and most of us considered ourselves Hungarians of Jewish faith, in relation to their numbers and to the generally accepted view that Jews are a physically inferior race, played an important role in Hungarian sports. The first Hungarian who ever won an Olympic Championship was a Jewish architect, Alfred Hajós, who won the 100 meter freestyle swimming in the first modern Olympic Games held in Athens in 1896. Hungarian Jews excelled in saber fencing, the Hungarian na-

tional sport. Jenő Fuchs won the saber fencing championship at the 1908 and 1912 Olympics and Gyula Kabos at the 1932 Olympics. Atilla Petschauer was a member of the teams that won Olympic Gold in 1928 and 1932. It is especially interesting that even at the Berlin Olympics in 1936, stage managed by Hitler to glorify the “Aryan Race,” three Hungarian Jews won Olympic Championships — Gyula Kabos in saber fencing, Ilona Elek in foils for women, and Károly Kárpáti, the physical education teacher at the second Jewish Gymnasium in Hungary, located in Debrecen, in middle-weight, freestyle wrestling. For me it is especially significant that a former student of the Jewish Gymnasium, István Sárkány, was a member of the Hungarian Gymnastics team, which competed at the Berlin Olympics. Hajós, Petschauer, and Kabos all perished in the Holocaust. Kárpáti and Sárkány both survived and I usually see them on my visits to Budapest.

But to get back to my story, I accepted the invitation and joined BEAC. Dr. Huszlicska and I became close friends and kept in contact until I immigrated to the United States in 1941. Some time during the Second World War, he changed his Slovak sounding name to the Hungarian Révkomáromi. During the last days of the war, he returned to Budapest to replenish the exhausted medical supplies of his unit. However, the rapidly advancing Russian Armies surrounded and captured his unit and he was unable to return to it. He reported for duty at the same military hospital where I worked in 1934-1935 and was killed when allied planes bombed the hospital. I could not trace him when I first returned to Hungary in 1938. I only learned of the tragic fate of this noble character and good friend a few years ago, when his widow saw my name in a Hungarian newspaper and contacted me.

I never became a great runner but was a member of several University cross-country championship teams. An added benefit to being able to keep fit, in spite of my grueling schedule, was that whenever anti-Semitic demonstrations took place, the

club provided unofficial “bodyguards” so that I did not have to miss any classes.

My schedule throughout my medical school years was Spartan. I got up every morning at 5:00 a.m., studied until about 7:00 a.m., then half walked, half ran the five kilometers to attend the 8 a.m. classes. At lunch time, I took a streetcar home for the main, midday meal. After lunch, back to the medical school. From the end of the second year on, I was a student assistant in the Department of Biochemistry and spent several afternoons and Saturdays there. Twice a week I trained at the BEAC and late afternoons, when I was lucky enough to have pupils, I tutored. I seldom arrived home before 8:00 p.m. After a hasty evening meal, I studied for an hour or two and went to bed at 10:00 p.m. Except for Saturday evenings and part of Sunday, I had no time for a social life. What I missed most was that, except for the summer holidays, I had no time to read or to go to the theater or to a concert.

The public transportation used by students was the electric streetcar. There was an elaborate streetcar system in Budapest and any part of the city could be reached rapidly. For the equivalent of 35 U.S. cents, one could buy a weekly card, which allowed unlimited travel on three streetcar lines, in either direction, for one hour, twice daily. To have more time for lunch and to get back to school, we used to beg the conductor to punch our card so that we would have 80 or 90 minutes instead of the 60 minute travel time in order for us to have a more leisurely meal.

Medical students first had contact with patients at the beginning of the third year. I spent the three-month vacation period after the third year as a volunteer in Professor Korányi's department. At that time there was a collection of talent in this department which, in my experience, was unsurpassed anywhere. Otherwise, the level of instruction was variable in the different departments. Anatomy, physiology, biochemistry, pathology, internal medicine, surgery, neurology, psychiatry, and ophthalmology were outstanding. The instruction in other disciplines

was mediocre to poor. The only claim of the pharmacology professor to fame was the accidental discovery of the laxative property of phenolphthalein, when a dog lapped up the contents of a broken bottle of the stuff.

Textbooks were either unavailable or, for me, too expensive, but I got along well by taking copious notes. I inherited the three volume Anatomical Atlas from my brother Miklós, who used it 17 years before me. The set is still one of my most valued possessions.

All examinations were oral. At the end of each semester there was an examination given by one of the senior or junior assistants. At the end of the second year there was a comprehensive examination, always given by the Department Head, in physics, chemistry, anatomy and physiology. Unless the student passed all four basic science exams, he was not allowed to start the third year. However, he or she was allowed to sit for the exam twice a year, without having to repeat the course he failed. Some students were held up for several years, but nobody was expelled. The system was the same in all Central European Universities. They used to say in Vienna, “Wer inscribiert und nicht krepirt will promoviert,” loosely translated, “Anybody who becomes a student and doesn’t kick the bucket, will eventually graduate.” At the end of the fifth year there was again a roadblock consisting of comprehensive examinations in pathology, pathophysiology and pharmacology. Without passing these exams the student could not start the sixth year, which in essence was a rotating internship divided among all clinical disciplines. At the end of each rotation there was a comprehensive exam that could also be repeated without limit. If the student passed all these exams he had to take the two final exams in public health and medical jurisprudence before he received his diploma. It was not unusual that some medical students spent ten or more years in completing the six-year course.

Since all examinations were oral, subjective factors like the attitude of the examiner toward the examinee and his mood, as

well as luck, heavily influenced the outcome. Students were examined in small groups and if one examinee could not answer a question, or gave a wrong answer, the next student was asked the same question. I remember that at the final exam in physiology, a pretty female student, who had done very well up to then, was asked “Which organ can increase its size up to 10-fold?” The girl blushed purple and started to stammer. Thereupon, the professor turned to me for the answer. I promptly replied: “The pupil.” Whereupon he started to laugh and gave both the young lady and me top marks.

Of the heads of clinical departments, Professor Tibor Verebély was the most colorful individual. He was an excellent lecturer, who used the blackboard most effectively. I learned a lot from him about simple, systematic, easy to follow presentation of complicated topics. He was one of the most prominent members of Hungarian society. Prime ministers came and went, but Professor Verebély ruled supreme, unchallenged in the realm of surgery. He was very impressive in his demeanor, always impeccably attired. Every morning he arrived promptly at 9:00 a.m. in his chauffeur-driven, large black Mercedes. In spring and summer, when the weather was not inclement, he stepped out of his car bareheaded, with the chauffeur carrying his hat, light coat, and briefcase, a respectful five steps behind him. As soon as his car stopped, his two senior associates, men in their late forties or early fifties, came rushing out of the door, fighting for the privilege of taking the items carried by the visibly amused chauffeur. Inside the door all of the medical personnel, including the rotating interns, were lined up in two rows, in spotless white coats and pants, in descending order, according to rank. Everybody bowed deeply as the Professor, followed by the two senior associates, passed by.

Professor Verebély was also a very witty man. On one occasion this man who always looked like a fashion plate appeared in the lecture hall in a shiny black suit, frayed soft collar and worn cracked shoes. Before starting his lecture he addressed his

astonished audience: "Ladies and gentlemen, I apologize for my shabby attire, but immediately after my lecture, I have an interview with the tax assessor." One must know that for people not on a fixed salary, the income tax was not determined by the actual income based on honest bookkeeping, but at a haggling session between the tax assessor and the taxpayer, pleading poverty. Self-employed people only paid taxes on a fraction of their actual income.

On another occasion, as was then the custom, for the benefit of the students he operated in the lecture hall on a young lady who had a large, ugly carbuncle in the right inguinal region. He opened it wide, cleaned it, and packed it. A week later the young lady, a high-priced call girl, commonly known as a "phone book actress" (because they listed their occupation in the telephone book as actresses), was brought back to show the students how well the healing had progressed. When the Professor exposed the wound, the young lady piped up "I can't express adequately my deep gratitude to you, but please tell me, will the scar show?" "Yes," replied the Professor, "If you show it."

6. MY EXPERIENCES IN THE HUNGARIAN ARMY, (1932)

At that time, there was compulsory military service in Hungary for all physically and mentally fit males. Everybody was called up at age 21. Those who finished high school and passed the matura exam were called “volunteers,” served one year, and then for several more years had to be in the army reserve. Some of these were selected to go to Officers Training School and became low-rank reserve officers. Those who did not finish high school were enlisted for 18 months. If they wanted to stay in the army, they became noncommissioned officers. There were three grades of noncommissioned officers below sergeant and several more above sergeant. Advancement was very slow. Only relatively few reached the rank of sergeant and it took 10 to 15 years to get there. The pay was extremely poor. This embittered group of uneducated men took out their frustration on the “volunteers” and enlisted men in the most brutal and sadistic manner. They were especially hard on medical students who, from all four medical schools in the country, were trained in one group. I believe that the reason for this was that medical students were made lance corporals in six weeks, became sergeants in 14 weeks, and were commissioned sublieutenants in six months. Noncommissioned officers thought that this rapid advancement was extremely unjust.

Medical students were trained in barracks on the Buda-side of Budapest at the foot of a steep hill. We were assigned to large rooms, with 12 beds on each side and slept on bedbug-infested straw mattresses. The straw was changed and the metal bed frames were cleaned every four weeks. In attempting to keep the bedbugs away we used to put the feet of the bed frames in shallow metal boxes filled with kerosene. This, however, did not help us, because the clever creatures learned to climb to the ceiling and drop down on us at night.

While in the barracks, we had to wear the used, not-too-clean clothing and footwear issued. Instead of socks, we had to wear a "foot cloth" wound around the foot. Until one became an expert in winding it, it moved during the long marches and caused large blisters, which not infrequently became infected.

The food was of poor quality but sufficient. We had cold showers to wash. There were 10 to 12 showers in a bathroom, which made it possible to determine who were converted Jews. They always showered in their underwear to avoid revealing that they were circumcised. One of these was the adopted son of a general who married his divorced mother.

Each bed had a shelf high above it. We had to fold our clothing in a neat square around a piece of regulation size plywood issued for that purpose. The folded clothing, crowned with our heavy steel helmet, had to be placed on shelves above our heads. Lights were out at 9:00 p.m. and the exhausted boys were fast asleep in a few minutes. About half an hour later, the especially sadistic "noncom" in charge of our room walked around with a flashlight, and if he was not satisfied with the neatness of the folded clothing, he poked it down together with the heavy helmet on the sleeping victim. But this was not all. The next morning about 9:00 a.m., when there was a 30-minute rest period in the training routine and everybody sat in one large group in the dust of the large exercise field, he would announce, in a loud voice, to the officers and the group at large, "Private so and so did this and this and will be punished. I will run and you will follow until one of us collapses." He was a member of the regiment's cross-country team and fancied himself to be a champion runner. Most of the trainees were not too fit and by 9:00 a.m. they were exhausted by the physically rigorous exercise that started at 6:00 a.m. Those punished usually collapsed after once around the field, to the great satisfaction of the tormentor and the enjoyment of the professional officers in charge of the training.

One night he poked my clothing and helmet on me and I awakened with a bloody nose. The next morning he selected me for punishment and went through his regular routine. I followed him three times around the field and when we pulled up abreast of the officers, I announced in a loud voice, “The punishment is too slow.” I put on speed and by the time we went around once more, I was about 50 meters ahead of him. He stopped and yelled “Enough of the punishment.” This was the last word he spoke to me during the rest of our training period. He also discontinued the poking of steel helmets on unwary sleepers, which made me a kind of hero in the eyes of my roommates.

In addition to basic infantry training we also attended Officers Training School. This included instruction in fencing and pistol shooting. I was a good fencer, but an indifferent marksman, until I found out that the pistols assigned to us pulled either to the left or to the right. During shooting practice two man-size targets emerged from the ground, about one meter apart, and stayed up for two seconds. One had to aim at one or the other. I found out that if I aimed between the two I invariably hit one or the other. This way I also got high marks in pistol shooting.

At the end of our training course, I was approached by the major who commanded the program. He said that since I was good in running, fencing, and pistol shooting, after completing my medical studies I should become an army doctor and train for the modern pentathlon. Since I had no intention to do this, I declined by saying that I was not a very good swimmer and that I was afraid of horses. Therefore, I would have no chance in swimming or riding, two of the five events of modern pentathlon.

After the first six weeks of our training, once a week for 24 hours, our group served guard duty at the Royal Palace where the Regent Miklós Horthy lived. He was the last Grand Admiral of the Austro-Hungarian Navy and ruled as a King of Hungary, although he was never crowned. After the peace treaty of Trianon, Hungary had no access to the sea and sarcastically people used to refer to him as “an admiral without a sea and a king without a

crown.” The guard consisted of a lieutenant and 16 of the medical students, who by that time were promoted to lance corporals. We stood guard at eight different locations in the Palace Garden for four hours at a time and rested four hours. One of my shifts was from 8:00 to 12:00 p.m. at a location that overlooked the Danube. I liked this location because it was right across from the Hotel Ritz about 500 meters away, and I could listen to the dance music from the Roof Terrace of the hotel. The sentries were allowed to move about 20 meters in any direction from their post. We were allotted live ammunition for our old fashioned rifles which, with a bayonet attached, weighed 7.5 kilos. Naturally, the Regent also had his professional bodyguard. There was a major in this bodyguard, who made a sport of catching the sentries off guard. He was a big, burly man who used to sneak around late at night, in crepe soled shoes, wearing a dark cloak, approach the sentry from behind, disarm him, and march him back to the guard room. These unfortunate sentries were severely punished. I was forewarned about this and always took up my post in a place where I could not be approached from behind. One foggy night I saw the outlines of a giant of a man emerge, about ten meters from me, from the fog. I took my rifle off my shoulder and yelled at him to stop. He continued to come closer, whereupon I activated the bolt of my rifle and simultaneously yelled “Stop or I’ll shoot!” He stopped and I made him put his hands above his head and marched him to the guard house. It was an awkward situation. The lieutenant in charge apologized profusely to the major, but both were compelled to “praise” me for my alertness and for taking my duty so seriously. Needless to say, I was not assigned to guard duty again until years later.

For the last six weeks, until we learned conduct befitting a future officer in the Hungarian army, we were confined to barracks. We could receive visitors at an assigned time once a week. The rules of behavior for officers (and these also applied to us) were both elaborate and strict. First of all, officers off duty were

required to wear immaculate uniforms that were made to measure and they had to pay for these uniforms themselves.

Professional officers had to obtain permission from the Minister of War to get married. The bride-to-be was scrutinized with regard to her racial and religious background and the financial strength of her family. After 1920, officers were not allowed to marry if any one of the four grandparents of the prospective wife was Jewish. Furthermore, the family of either the bride or the groom had to deposit the equivalent of about \$4,000 as “caution money.” This was kept in escrow for the not infrequent eventuality of incurring debt from drinking, gambling, or womanizing. In such cases the money was used to satisfy the creditors and the officer was cashiered. If he accumulated more debt than could be covered by the “caution money,” or assumed by the families, the officer was expected to commit suicide.

Officers and volunteers were required to wear white or pale yellow deerskin gloves and carry a side arm and saber. Volunteers under the rank of sergeant wore a bayonet on their left side. They were not allowed to carry any package and if they went shopping with a lady, packages had to be delivered or the lady was obliged to carry them. The “rationale” for this idiotic rule was that when insulted by a member of the working class, they should be able to retaliate immediately using their sidearm and thereby protect the reputation of the army. If insulted by a member of the middle- or upper-classes, the officer was expected to challenge the individual to a duel. Duels were elaborate affairs. Both parties had two “seconds” who convened several times to agree on the terms of the duel. If they could not agree, a “court of honor” was convened. If the insulting party did not apologize, then, depending on the severity of insult, they selected light sabers and the parties wore heavy protective bandages over large arteries and the fight went on until “first blood,” i.e., until one of the combatants was wounded. If the insult was severe, they fought with heavy, cavalry sabers until the physician, always present at duels, declared that one of the parties was unable to

continue. In extreme cases, duels were fought with pistols. After the duel the parties invariably made up.

Ordering the uniform and the matching headgear and elastic sided boots posed a difficult problem for me. 1932 was the height of the Depression in Hungary. I had no income from tutoring that year and had to make do with my State Scholarship, the equivalent of 160 U.S. dollars. The outfit I had to procure cost about 40 dollars, all the money I had at my disposal. My army pay was 6 pengő, about \$1.20 a month. By the time I paid for my outfit I was left completely without funds. I remember one Sunday I was invited to a party in a house on a hill on the outskirts of Budapest. The house could only be reached by car or on foot. I could not afford a taxi and, as I walked to the party, a thunderstorm broke out. Since I could not afford the regulation raincoat we were allowed to wear (umbrellas were not permitted), I arrived at the party soaking wet. I felt humiliated and tried to save face by fibbing that my taxi had broken down and I had to continue on foot. Fortunately, somebody gave me a lift back to the barracks.

In the fall of 1932 all medical students who completed the four-month Infantry and Officers Training Course were promoted to sergeants and went back to medical school to complete their studies. Those who received their diplomas in September 1934 were called back to active duty for an additional seven months. During the first six weeks we were assigned to the barracks of the First Infantry Regiment in the center of Budapest to complete our infantry training. On the second day, our group was selected for sentry duty and I, because of my good record in Officers Training Course, was selected to be commander of the guard. The members of the guard lounged in the guard room, except for one, who stood just inside the main gate. His only duty was to alert the guard in case of danger and, in addition, to have the trumpeter sound the alarm if a high ranking officer arrived. It happened that the commander of the Budapest division arrived in his official car, which bore the insignia of his

rank. The sentry failed to recognize the rank and did not have the trumpeter sound the alarm, allowing the whole guard to line up in formation and present arms to honor the illustrious guest. I sensed that something went wrong and, hastily buttoning my tunic and buckling on my sword, rushed out. I saw a lieutenant general, in evidently bad temper, walking back and forth, beating his boots with his riding crop and yelling for the commander of the guard, unhappily me. I felt proud that I recognized his rank from his insignia and coming to attention three paces from him I addressed him “Lieutenant general, I humbly report...” He did not allow me to progress with my report and yelled at me to start again. I did but he stopped me again. His frightened adjutant standing behind him frantically tried to convey something to me without his boss realizing it. I finally recognized that he was trying to mouth “Your Excellency.” I restarted my report with “Your Excellency...” and this time he allowed me to finish. By this time, however, the damage was done and I was summoned to report the next day to the ordinance room before the colonel of the regiment, who gave me a severe dressing down and punished me with two weeks of confinement to the barracks. Later I learned that all officers below the rank of lieutenant general must be addressed by their rank. The lieutenant general, however, was the lowest military rank permitted to use the title “Excellency.”

After six weeks we were promoted to sublieutenants and assigned to various military hospitals. Fortunately, I landed in the department of medicine of a large military hospital in Budapest and could live at home. Our salary was 30 pengő (6 U.S. dollars) a month. This covered my most essential needs, but left little for social life. Not much of interest occurred during the six months I spent in the hospital. My chief was a flamboyant major who walked between the pavilions of his department like Mephisto, wearing a flowing cape.

The month of September, 1938, was full of unpleasant surprises. I was engaged to marry Edith Ribáry on October ninth

and we were planning a honeymoon in Taormina, Sicily. On the first of the month I was informed that because of a new set of “Jewish Laws” then instituted, I must be replaced by a Gentile Physician at the private hospital, where I was Resident Internist, by December 31st. About two weeks before our wedding date I was called to report to one of the military hospitals in Budapest. The reason for the call-up was a decree that Hitler had returned to Hungary part of the territory ceded to Czechoslovakia when Hungary was dismembered at the end of World War I. The Hungarian army was partially mobilized and we were kept in reserve to be ready in case of an armed confrontation between the advancing Hungarian army and the Slovaks. We had no work and loafed about from 8:00 a.m. to 5:00 p.m. when we were allowed to go home. The occupation of the returned territories was completed without any incident. The culmination of the event was the entrance of Regent Horthy to Kassa, the largest city of the returned territory. I wanted to be present at this historic occasion and, with another army doctor, obtained two days leave and drove in my little car to Kassa about 250 kilometers away. On arriving, we found the city teeming with soldiers and civilians, and there seemed to be no hope of getting anywhere near the site of the official ceremony. As we were standing far away, the Regent, followed by a large entourage, passed by. In a moment of sudden inspiration, I grabbed my friend’s arm and we attached ourselves to the end of the procession. Nobody objected and we were able to witness the ceremonies not more than 20 paces away from the Regent.

On the way home, we had a curious incident. It was a foggy night and the road was choked with vehicles returning to Budapest. At the sides of the road, bonfires were burning at regular intervals. We thought that this was a nice gesture of the “liberated” population until we found our car bumping perilously in the middle of a swampy field, surrounded by other cars which had suffered the same fate. It turned out that the area of the accident had a Slovak population hostile to Hungarians. They

built the bonfires parallel to the road and, at a place where there was a sharp turn in the road, they continued the bonfires in a straight line and lured the unsuspecting drivers into the muddy field. Fortunately, with some help we were able to push our light car back on the road. I drove back until I met the first military police and alerted them to the malicious ruse. Early next morning we arrived back in Budapest without any further incident. Shortly thereafter we were demobilized.

The last time I was called to active duty was in the summer of 1939 when, again by a decree of Hitler, another part of Slovakia was awarded to Hungary. By this time, the horse artillery was considered too elegant for a Jew, and I was transferred to a supply battalion, considered more appropriate for a member of my religion.

The commander of the supply battalion was Gyula Szálasi, younger brother of Ferenc Szálasi, the leader of the Hungarian Nazi Arrowcross Party. During the German occupation of Hungary he became Prime Minister of Hungary at the very end of the war. He was responsible for the deportation to the gas chambers and the outright murder of several hundred thousand Hungarian Jews. His brother appeared to be a harmless fellow. Although he knew that I was Jewish, he treated me no differently from the other reserve officers in his command. The assembly place for the battalion was in a village about 50 kilometers from Budapest. At the time I was the proud owner of a small, second-hand, convertible Fiat car. This meant more than the reader would think because in all of Hungary, with a population of about nine million, there were fewer than 10,000 passenger cars. It took all my savings to acquire it in 1937. The day's activities finished at about 5:00 p.m. There was nothing going on in the godforsaken village and Major Szálasi was eager to get back to Budapest. So was I, married for less than a year. I had the tenacity to offer to drive him each afternoon to Budapest and bring him back early next morning. On the drives he became quite friendly. He lived in a lower-middle class neighborhood in a two-room, shabbily

furnished apartment. Almost every day he insisted that I come up and have a drink with him. After a drink or two he became loquacious, patted my shoulder and said "You, my young friend, have nothing to worry about. In a few years my brother, your namesake, will become the true leader of Hungary and we will make you a career army doctor."

The mobilization was a prolonged, tragicomic affair. From the surrounding villages peasants of military age were commanded to report for induction with a cart and two horses. I don't know where they got so many lame, sickly looking horses and broken-down carts! In addition, they all claimed to be chronically ill themselves, as testified by detailed medical reports from their doctors. My duty was to examine the inductees and declare them fit or unfit for military duty. A veterinarian had to select the horses that seemed to have some mileage left in them. It took over six weeks to get together 90 carriages that could roll, 180 horses that could move, and 360 men to handle them.

Finally, on a Saturday morning in early November, the battalion was judged to be complete and ready to move. The proud major ordered the veterinarian, a reserve lieutenant, and me to go to the Post Office and report this in an urgent telegram to the Ministry of War. We arrived shortly after noon and found the Post Office closed for the weekend. After prolonged banging on the door, the Postmistress appeared and informed us in no uncertain terms that until 8:00 a.m. Monday morning no telegram would go out from her office. We started to remonstrate with her, at first politely and later more vociferously, that our mission was of great national importance. As this went on for a while, a door opened and a man in his mid-thirties, dressed in the customary attire of the country gentry, appeared on the scene. It later turned out that he was the Magistrate of the District and husband of the Postmistress. When he saw that he was obviously dealing with two reserve officers, he became abusive and threatened to throw us out on our ears. I could not face the consequences of returning to our commander without having ac-

complished our mission of “national importance,” drew my pistol, and threatened to shoot unless the telegram was sent. Sensing my resolve they sent the telegram and for the time being the “future” of Hungary was safe.

Returning to headquarters, we reported the events to the major. He became incensed, and said that the way we were treated was a grave insult to the Hungarian Army and that both of us should challenge the husband to a duel. The lieutenant, who was a corpulent man in his early forties, became terrified. I was a good saber fencer in my high school days and offered to take the Magistrate on first. Two seconds were selected and dispatched with the challenge. The seconds of the two parties had several lengthy meetings and at the end, as was most often the case, the husband apologized.

7. RESIDENT PHYSICIAN, (1935-1938)

The first few weeks after my discharge from the army on May 1st, 1935 were perhaps the most difficult in my life. I always wanted to be an internist, but, since my oldest brother Miklós was an internist, the family decided that it would be more prudent if I would choose another specialty. At that time, at the height of the Depression, it was extremely hard for a young doctor to find a paying position for specialization. For a Jew it was impossible. My brother Miklós had a classmate in medical school who was the Chairman of the School of Midwifery. He gave me permission to join his staff as an unpaid volunteer. I was assigned to one of his assistants, who used to examine the obstetrical or gynecological patients behind a screen and dictated his findings to me, standing on the outside. My situation was desperate and the future looked bleak. I realized that having no meaningful contact with patients, I would learn little or nothing for years. It would have been unimaginable for a doctor to tutor students, and I had absolutely no other source of income. My parents or brothers would have been unable to help, even if I had not been too proud to ask them. I had no money for carfare and, with the excuse of being too busy, suspended all my social contacts. Luckily, however, this desperate situation lasted for only three weeks. Providence came to the rescue in the guise of Professor Zoltán Aszódi who was my mentor at the Biochemical Institute. He was a former Rockefeller fellow and we used to converse in English. At a party he was asked by the owner and medical director of the Sviabhegyi Szanatorium if he could recommend a young doctor fluent in English. This Institution was one of the most elegant and luxurious of its kind in Central Europe. It was located on a hill overlooking Budapest, had a large beautiful garden, with a swimming pool and a hothouse full of orchids. The clientele consisted of patients with chronic disorders who wanted medical attention while having a pleasant vacation. Some people came to lose or gain weight or just to have

some rest. Many of the patients came from English-speaking countries, attracted by the pleasant surroundings and the favorable exchange rate. Most of the rooms had private baths and the daily charge, with five meals and nursing care, was about \$8 U.S. The food was as exquisite as any I have encountered during my long life. The Szanatorium had hydrotherapy and physiotherapy facilities, an exercise room, and a small laboratory.

After a short interview, in the course of which it turned out that with my background in biochemistry I could also run the laboratory, I was offered a job on the spot. The job had no fixed salary. I got room and board and received 20 percent of the daily medical fee of 75 U.S. cents of the patients assigned to me.

There was a lady physician a few years my senior who treated most patients. Gradually, however, I acquired a reputation for giving almost painless injections, and more and more patients asked to be assigned to me. Most of our income came from gratuities that patients gave us personally, in an envelope, before departing. This was a very humiliating system, prevalent in every hospital in Hungary. It survived communism and is, unfortunately, still practiced today. Because of the wealthy clientele, the gratuities amounted to far more than the income any young physician could have expected to earn anywhere else. After a few months I felt economically secure and, in about 18 months, after an American girl who toured Europe with a friend in a Ford convertible taught me to drive, I purchased the already mentioned little Fiat for the astronomical sum of 750 U.S. dollars.

During the summer season, the Szanatorium was completely full. The rest of the year it was sparsely occupied and I could arrange to work as a volunteer in the Internal Medicine Department of the Jewish Hospital in Budapest. The Chief of the Department, Dr. Lajos Lévy, a distant relative, was also Co-Director of the hospital. He was an outstanding diagnostician and I learned much from him. I regularly read many Hungarian and German medical periodicals and subscribed to the British medi-

cal journal, *Lancet*. This, as you will see, played an important role in the future course of my life.

In the summer of 1936 there was an International Congress of Physical Medicine in London. My chief didn't speak a word of English and invited me to go with him and act as his guide and interpreter. To get some propaganda value in return for the expenses of the trip, he told me to submit a paper on the "Therapeutic Indications of Underwater Hydraulic Massage." This was then a new device, of which he was very proud. The patient sat in a tub of hot water and the painful joints or muscles could be massaged with a strong jet of even hotter water. To plagiarize from Jerome K. Jerome's entertaining book *Three Men in a Boat*, we thought it was an "ideal" treatment for all maladies, excluding perhaps "housemaid's knee." By that time I had published a few articles in the *Biochemische Zeitschrift* and I wasn't too happy with the topic, but I complied.

Two days before we were to leave for London by plane (my first plane ride-to-be), a middle-aged American gentleman, Mr. Alson H. Robinson, was admitted to the Szanatorium. He was a Unitarian Minister from Plainfield, New Jersey who with his daughter and his wife, a well-to-do shoe heiress from New England, was on a round-the-world trip. In China he became very sick and when he arrived to Budapest, he was in serious condition. Though he was more than six feet tall, he weighed less than 120 pounds and he could barely move. It turned out that he had been treated in several hospitals, but they could not diagnose his ailment and he became progressively worse. He was referred by the American Consul to our Szanatorium. When I examined him, I found that his right knee was swollen to the size and shape of a soccer ball and was extremely painful. By chance, a few weeks earlier, in the *Lancet*, I read that severe arthritis of the knee joint is a rare, but serious, complication of amoebic dysentery. Examination of his stool confirmed the diagnosis. I prescribed Emetin which was, at that time, the best available drug for amoebic dysentery. In 1936 there were no

antibiotics or sulfa drugs. I called into consultation the world famous Hungarian surgeon, Jenő Pólya, whose technique for gastric resection is still used worldwide. He recommended that the right leg be put in a plaster cast for four weeks. The Robinsons, understandably, became dependent on me and were terrified when I told them that I had to leave for London. I explained that for the time anyway there was nothing else for Mr. Robinson to do but rest, eat, and take his medication and that I would be back in five days.

Mr. Robinson was well on the way to recovery when I got back from London. He stayed another two months until he regained his strength and most of his lost weight. We became close friends and corresponded frequently after he returned to the United States. Although he required no medical attention, he spent the summers of 1937 and 1938 at the Szanatorium. I will have much more to say about the Robinsons' decisive role in the course of my life (and that of my wife-to-be, Edith) later on. Just now I would like to relate a few episodes of my tenure at the Szanatorium.

One of the rewards of working at the Szanatorium was that I had the opportunity to watch in action and learn from the most outstanding physicians who were called in for consultation. One of the patients was Count Széchenyi, the great grandson of the man who established the Hungarian Academy of Sciences. He was a former Ambassador of Hungary to the United States and the husband of Gloria Vanderbilt. He had advanced myocardial degeneration and Professor Wenckebach, the world famous Austrian cardiologist, was called in for consultation. In contrast to his brilliance as a scientist and physician, Wenckebach was a subdued, introverted individual. The medical students in Vienna used to say: "Bei Professor Wenckebach sind bloss die erste Banke Wach" (which loosely translated means that "at Professor Wenckebach's lectures only those in the first row manage to stay awake").

Naturally, the Chief of the Szanatorium personally took care of the important patient and I was not even allowed to witness the examination of the Count by the great Professor. Wenckebach ordered bed rest and twice daily intravenous injection of strophanthin, then the most advanced treatment for congestive heart failure. And then the trouble started. As I learned from the nurse, the Chief attempted several times to get into a vein without any success. The Count became more and more irritated and the Chief realized that if he didn't want to lose his patient to one of the other Szanatoria, he must do something. He sent for me and told me in the corridor in front of the Count's room "Go in and give the injection, but don't find the vein on the first try." I went in and, disregarding the second part of his instructions, injected the strophanthin. I continued to treat the Count until he left, much improved after a few weeks.

Another patient about whom I have an interesting story to tell was a Count Hadik. He was an enormous man, weighing more than 300 pounds. He came for a few weeks every summer to lose weight, which he promptly regained after leaving. One summer, when I took his medical history and asked if he had any complaints, he said "I'm losing my appetite." Much surprised, I asked him what he meant, whereupon he answered, "You know my young friend, until a few months ago I could eat an 18 to 20 pound roast goose in one sitting without any trouble. Nowadays I can only do it if I have cucumber salad with it."

Another illustrious patient was Countess Károlyi, the daughter of Regent Horthy, who suffered from advanced pulmonary tuberculosis. She spent long periods in the Szanatorium and was visited several times a week by her mother, but very seldom by Regent Horthy. Mrs. Horthy was a distinguished looking, gracious lady, who appreciated what little we could do for her daughter. Not long thereafter the Countess died in a tuberculosis hospital.

8. MARRIAGE, PRIVATE PRACTICE IN BUDAPEST, AND EMIGRATION TO THE UNITED STATES

In February 1938, I was invited to a dinner party followed by dancing at the house of one of our patients who had a daughter of marriageable age. There were about a dozen girls and the same number of eligible young men there. It was the custom that every young man danced with every girl. My future wife, Edith Ribáry, was one of the last girls I asked for a dance. She was just recovering from a severe cold and did not look her best. She realized this and started to joke about it. I found her to be very intelligent and witty. It turned out that we had many common interests, including skiing, and that by chance we were scheduled to leave at the end of the month, the same day, by the same train to the Ötztal region in Austria. She was chaperoned, as was the custom of the day, by a married cousin, Ági, and her husband István Sallai. They had reservations at Obergurgl as did I and my friend, László Berger, who later perished in the Holocaust in nearby Hochsölden. When we arrived in Hochsölden, we found to our unpleasant surprise that all other guests in the small hotel were young Germans, who were members of a Nazi youth organization called "Kraft durch Freude" meaning "Strength Through Joy." They spent the long evenings singing anti-Semitic songs in the only large common room. We had a choice of sitting there in a corner pretending to read or retiring to our small, cramped, cold bedroom. After a few days, I called the hotel where Edith was staying and when we found that they had a room for us, we moved there.

While we were still in Hochsölden, one of the Germans became very sick with tonsillitis and strep throat. I was the only physician around and was asked to see him. I gave him some aspirin that I had with me, and in a few days he got better despite "treatment." He was very grateful and asked me to fill out some forms and promised that the German National Health Insurance would pay me in due time. I quickly forgot about this

promise until two months later when I received in Budapest a check for 60 DM, about 12 U.S. dollars. This proved that true to the German character, whatever the political developments, occupation of Austria and Czechoslovakia, “Ordnung muss Herschen” (order must prevail).

The week in Obergurgl was much different. Many of the guests were British or French. Members of an Austrian Film Company making a film starring a famous Austrian actress, Paula Wessely, were also staying there. The early March weather was mild, with brilliant sunshine. Skiing was quite different then than it is now. Except for one cogwheel railway in Davos, Switzerland, there was no uphill transportation. We assembled after breakfast, fixed sealskins to the bottom of our skis, and started the strenuous uphill trek. The fur of the sealskin allowed the skis to slide forward, but prevented them from sliding backward. With knapsacks on our backs, we started at an altitude of 6000 feet and climbed another 2000 feet or so. The going was difficult. After four or five hours of climbing, we reached our destination, enjoyed the view and the sun, and ate our lunch which we brought with us. At about 2:00 p.m. we followed our ski instructors down the hill and were back at the hotel in 30 or 40 minutes. That was it for the day. Nowadays, a good skier can make as many downhill runs in a day as we did in a week, but without the thrill of climbing to the summit.

After dinner there was music and we danced until our tired feet gave out. One evening, a few days after our arrival, Edith went up to bed ahead of us. She heard some commotion in front of the hotel. There was a radio blaring in the tavern opposite; Edith leaned out the window and heard through the open door of the tavern that Hitler’s army had marched into Austria and occupied Vienna without any resistance. The next morning the Jewish and liberal members of the filming team left everything behind and skied down to neighboring Italy. The Sallais wanted to start for home immediately, and Edith’s father, who managed to get through to us on the phone, also urged us to do so. I was

against our immediate departure and argued that it was better to wait until the situation became more settled. I also added that our hotel was paid until the end of the week and we might as well enjoy a few days of good skiing, perhaps for the last time in our life. With Edith's help, I prevailed and we stayed on until Sunday morning.

We sent our baggage down by sled and skied down to the nearest railway station. It was an interesting descent. Close to Obergurgl the peasants, dressed in their Sunday best on their way to Mass, greeted us with a pleasant "Gruss Gott" (praise the Lord) as we passed by. As we got closer to the railway station in the valley, the greeting became "Heil Hitler," and German flags replaced the Austrian ones we had just seen.

We later learned that during the first two days after the Anschluss, many Jews, including foreign citizens, were taken off trains, detained, and some were insulted. My views about our trip home were justified and I became a kind of a "hero," especially in the eyes of Edith, who at that time was less critical of me than later in the course of our marriage, when she served as my "loyal opposition."

During the rest of this eventful spring, we spent as much time together as possible and in June decided to get married. I was concerned about the impending inevitable World War and wanted to wait, but Edith insisted "now or never." As usual, it turned out that she was right.

I officially asked for Edith's hand in June and we had an engagement party in July. The wedding date was fixed for October 9. Edith's only brother could not be present. By that time, most middle- and upper-class Jews, who could afford it and were able to obtain a visa, tried to emigrate. My future brother-in-law, who was more pessimistic and as it turned out later more realistic, left with a temporary visa for England where he obtained a miserable job in the office of a relative by marriage.

It was the height of the season in the Szanatorium when I told my chief that I intended to get married and asked him what

his plans for me were under the changed conditions. He said that it was fine with him, and he assigned two rooms in an annex to the main building to be our future living quarters. He told me to have it remodeled at my expense and according to our taste. He also told me that we would get full board free. My future mother-in-law, who as you will see later was a very remarkable, resourceful, and energetic lady, hired an interior decorator to do the job. Then, everything appeared to collapse around us. I was informed that as of December 31st I had no job. I was desperate, about to be married, and had no visible means to support a wife. I was still reeling from this blow when I was called to report for military duty. Edith's parents were wonderful in this crisis. They offered financial and, what was even more important, moral support. Edith's father insisted that we should accept the income of a piece of real estate, which he intended to give Edith as a dowry. At the time I was already convinced that Eastern Europe would be dominated either by Hitler or by Stalin and thought seriously of emigrating. I reluctantly accepted the money, about 80 U.S. dollars a month, but argued successfully against transferring the property in the name of a possible emigrant. Edith had a bachelor Uncle Géza. He was a well-to-do lawyer, who doted on Edith. Before the wedding he gave me an envelope with 5,000 pengö (1,000 U.S. dollars) saying: "This is a loan. I don't want you to start your married life with financial worries. You will repay me when you can; I predict it will not be too long." He was right. We never had to touch the money and felt secure enough to return it a year later.

A week before our marriage date I was called for military service.

I insisted that we should be married in the synagogue of the Jewish High School instead of in one of the large synagogues. Practically all my former classmates, teachers, friends, and relatives (more than 300 people) were present. I got three days leave from the army and permission to be married in mufti, but I had to leave for our short honeymoon in military garb and report to

my unit by telephone every eight hours.

There was a big reception at the house of Edith's parents. After a quick family dinner we both changed, I into uniform, and set out in my little car towards Lake Balaton about 70 miles away. No sooner did we leave the outskirts of Budapest than we had a flat tire and I had to change tires to the great merriment of a group of urchins, who seemed to materialize from nowhere. I used to tease Edith that "My marriage was a ski accident and that it started with a blowout."

Shortly after the occupation of Kassa, I was demobilized and until the end of 1938 we lived in the Szanatorium. This was fortunate because Edith had no housekeeping duties and she could help her mother in house hunting. They were fortunate in finding a beautiful apartment very close to the Hungarian Parliament. Two rooms of the five room apartment had built-in furniture of excellent taste and quality. It was custom made for the daughter of a wealthy businessman, whose daughter married a journalist, but the marriage broke up after six weeks. We bought the furnishings for a pittance and rented the apartment. We lived here happily until we emigrated in September, 1941.

My office was in one of the rooms; the dining room served as waiting room, and the large, marble bathroom doubled as a laboratory. I had office hours from 3:00 to 5:00 daily. In the beginning, when there were few patients, I could have a nap and be awakened by the live-in cook-maid when a patient came. This was a pleasant arrangement because then, at the only time in our lives, we had busy social life. To my surprise, my practice grew rapidly. Many people whom I had met in the Szanatorium became my patients. Some of them, as was the custom in Hungary, selected me to be their family physician and paid a yearly retainer. One of them, Zoltán Brázay, who was one of the leading industrialists in Hungary, was especially generous with his remuneration.

I soon fell into a busy routine. I was prevented from working in the Biochemical Institute but had some ideas I was eager

to test. I looked for laboratory space that I could use. Edith's Uncle Géza was the attorney for Chinoin, one of the large Hungarian pharmaceutical companies, and was able to get me permission to work in their research laboratories from 5:00 to 8:00 a.m. before their own people needed the space and equipment. It was not the most desirable arrangement, but beggars can't be choosers.

I worked on the prolongation of action of subcutaneously injected medicines and was successful in applying my method to the treatment of diabetes insipidus. This disease is caused by the failure of the pituitary to secrete antidiuretic hormone. Patients voided and had to replace as much as 6 to 12 quarts of water daily. It was possible to prevent the symptoms of the disease for 24 to 48 hours with a single injection of my long-acting hormone. I was soon able to collect a fair number of patients who were very grateful that they could again lead a normal life. One of my patients was a Polish Jew. He was one of the first to be deported when, in 1940, all Jews without Hungarian citizenship were sent to concentration camps in German-occupied Poland. I tried to intervene with the authorities but had no success. I am certain that he was unable to obtain the large quantities of water essential to his survival and must have had a horrible death from dehydration in a few days.

After finishing my work at Chinoin, I went to the Jewish Hospital and participated in the morning rounds. Then I made my house calls and, if there were not too many, I even had time to meet Edith in the open air Lukács swimming pool, fed by warm artesian water and open year round. After the midday meal, I had office hours, read, or if necessary made more house calls. Were it not for Hitler and the ominous future, it would have been a pleasant life.

Efforts Toward Emigration

As already mentioned, Mr. and Mrs. Robinson also spent the summer of 1938 in the Szanatorium. These brave and per-

haps also naïve people, disregarding the possibility of an impending war, came back to be with me and to meet Edith. Mr. Robinson tried to encourage us to emigrate and suggested that we apply for an American immigration visa. I told him that we were too late. The yearly quota for Hungarian nationals was 800 and there were more than 200,000 registered applicants. He promised to try to get us a U.S. visa when he got home, and I assured him that I would try my best to get a visa to any country that would take us.

In January, 1939, we somehow managed to get enough foreign currency to go for a short ski vacation to Davos. I also managed to obtain an eight-day English visa ostensibly to visit my brother-in-law, who had been living there since the summer of 1938. In Davos we stayed in the cheapest boarding house to be able to save a few Swiss francs for my trip to London. Then, as so often in my life, providence intervened. There was a slot machine in the boarding house and the day before I was to depart for London I had an irresistible urge to insert a one-franc piece. On the first try, I hit the jackpot of 200 francs.

My main purpose for going to London was to visit Australia House and try to get an emigration visa. I read somewhere that most of the cattle in Australia were slaughtered in Adelaide and that the endocrine glands were discarded. I brought with me a plan according to which, together with a chemist, a biochemist, and an endocrinologist, I would set up a plant, which in the beginning would make crude extracts of all the endocrine glands that would be suitable for shipping without refrigeration. I had a letter of credit for \$10,000 from Mr. Robinson, to cover the start-up expenses. I also indicated that later we intended to expand to the production of pure hormones. I was told to leave my plans there and was informed in two weeks, through the consul in Budapest, that Australia only gives visas to farmers with capital.

At about the same time, a young man in the construction business also applied for an Australian visa. A contractor in Hungarian is called “vállalkozó” or in other words a man who

“undertakes” to do a project. The young man did not speak English well and when filling out the visa request form in the column “Profession” wrote “Undertaker.” Within ten days he got a telegram asking “Can you embalm?” The baffled young man asked his English teacher what this meant. When enlightened, he sent back a telegram in the affirmative, took a course in embalming, and in a few weeks time was on his way to Australia. He worked for an undertaker for a short while and then went into the construction business. In due time he became the owner of one of the largest construction firms in Australia. Such are the whims of fate. If his English had been better, or if he had asked for help in completing the visa form, he would never have gotten his visa and chances are that, like many of his contemporaries, he would have perished in the Holocaust.

We tried, without success, to get emigration visas to several other countries, including Haiti, whose Honorary Consul in Manchester, England, was a patient of mine. In the meanwhile, because of the war, our correspondence with the Robinsons was interrupted.

On a day in April, 1941, I got a telephone call from the American Consulate, telling me to come and see the Vice Consul, a Mr. Polutnik. He was a dour man, who quickly came to the point: “Do you wish to immigrate to the USA?” When I said yes, he asked me, “Why don’t you put your name on the list of applicants?” I said, “What’s the use, there are 200,000 others ahead of me.” “That is none of your business,” he answered. I realized that something was happening behind the scenes and quickly complied. The next morning, I got another telephone call to go to the consulate. When I got there, Mr. Polutnik asked me, “Where is your wife? You will be fingerprinted for a visa.” We lived two blocks from the American Embassy and were there in 15 minutes. After another half hour, we left as overjoyed owners of American immigration visas. We felt like someone on death row who got a reprieve would feel. My mother-in-law was ecstatic. My father-in-law, however, was an ardent Hungar-

ian patriot and was convinced that nothing terrible could happen to the Hungarian Jews. His son had already left Hungary and he could not face the prospect of losing his daughter as well.

When we finally got to America I found out how we got our visa. Starting in 1938, Mr. Robinson bombarded the American Consul in Budapest with letters requesting that we be granted immigration visas. He described in detail how I saved his life when he arrived moribund in Budapest and nursed him back to health. He expressed his opinion that I would be a great asset to the United States.

In the Spring of 1941, travel between Europe and the United States became almost impossible. About the only open port for refugees was Lisbon, where tens of thousands of refugees were fighting for space on the few boats still in service. One of the companies that had two departures a month from Lisbon to the United States was American Export Lines. The European Director of the Unitarian Service Committee, Dr. Robert Dexter who was a friend of Mr. Robinson, had good connections with the management of American Export Lines and was able to prove to the American Consul in Budapest that if we could get to Lisbon with an American immigration visa, he could guarantee us transportation.

At the same time, the U.S. Department of State relaxed the strict regulations to the extent that it was willing to issue visas to Jewish immigrants who had transportation, as long as not more than 800 entered the United States in a year. That's how we got our visas. Dr. Dexter was also able to get us Portuguese transit visas.

After our initial euphoria evaporated, we realized that there were still many roadblocks on our way from Budapest to the United States. I had to be released from the Hungarian army; we had to get passports; and we had to obtain transit visas for the trip between Budapest and Lisbon.

Miraculously, I got my release from the Hungarian Army without any difficulty. I was directed to see a lieutenant colonel

in the Ministry of War. Unfortunately, I did not record his name and, when I first got back to Budapest in 1948, I could not trace his identity. Hungary entered the war in June, 1941, and her army suffered terrible losses on the Russian front. Many professional officers perished there and others at the end of the war accompanied the retiring German armies to Austria; of these many found their way to South American countries.

Much to my surprise, the colonel treated me with courtesy. He spent about 15 minutes perusing my service records. After he finished reading them he said "You finished among the top 5 percent in Officers Training School and whenever you were called for active duty, your commanding officers gave you an excellent report. It is sad that people like you are forced to emigrate. I will release you. However, you will have to reimburse the government with 400 pengö (80 U.S. dollars), the expense of training you to become an officer." The next step of getting passports was not too difficult. However, obtaining transit visas and transportation to Lisbon was next to impossible and took almost six months. To skirt around the war-torn parts of Europe, the most direct route would have been by train through Austria, Switzerland, unoccupied (Vichy) France, and Spain. For a while, the Vichy authorities allowed Jewish emigrants to travel through their territory in sealed railway cars. Shortly after we applied for the French transit visa, the French Consul, whose benevolence was secured by an expensive present to the mother of his Hungarian mistress, was recalled to Vichy. His successor came with strict orders: No more transit visas for Jews.

While this was going on, Hungary entered the war against Russia, and I was sure that my release from the army and our passports would be revoked. Luckily, in the turmoil that followed Hungary's entry into the war, my case must have been overlooked. However, if not for the inexhaustible energy and resourcefulness of Edith's mother, we would have been marooned in Budapest. She somehow found a corrupt official at Lufthansa, who for a large sum of money guaranteed to get us

air transportation through Berlin to Lisbon. Our departure from Budapest for Berlin was scheduled for September 12, 1941. We had to spend one night in Berlin and arrive in Lisbon on the afternoon of the 13th. Our boat, the *Excalibur*, was scheduled to sail on the 15th.

In the last two weeks of August, two events occurred that could have prevented us from leaving for America.

One day, I received a telephone call at the Jewish Hospital, where I was attending rounds, to contact my mother-in-law urgently. It turned out that her second cousin, Mr. Bernstein, the bachelor son of a prominent rabbi in a provincial city who was inducted for forced labor a few days earlier, was in deep trouble. He was a slightly built bachelor in his early fifties and a hypochondriac. On the morning of the call he was ordered to work on a ditch, the bottom of which was filled with water up to his knees. He refused the order, claiming that he had severe arthritis. He was put under guard immediately and was scheduled to be transferred to the barracks of the “River Patrol” for detention and court martial. Why the barracks of the River Patrol was selected for this purpose is still a mystery to me. Nevertheless, it was well known that everybody sent there was handled with great cruelty, subjected to severe beatings and other forms of torture, and that few of their prisoners came out alive. I faced a terrible dilemma. On one hand, this man was not only a relative of my wife but also a patient of mine. On the other hand, trying to do something for him threatened the impending escape of my pregnant wife and myself from Hungary. I took the biggest gamble of my life.

When I was called up in 1939, I ordered a tailor-made summer uniform, usually only worn by professional officers. Although as a reserve officer, I only had the right to wear a uniform when on active duty, I donned my uniform and with a pistol in my belt drove to the brickyard in the outskirts of Budapest where the labor battalion was stationed. I knew that these units were commanded by older reserve officers called up for this

purpose. I barged straight into the office of the commander, who was a corpulent first lieutenant in his late forties. I addressed him in the familiar and told him that Mr. Bernstein and his family of rich Jews were my patients and were important for my little practice. I asked him to reconsider sending him to the barracks of the River Police. He must have been impressed that a professional officer was forced to ask a favor from him and relented. If he had asked me to identify myself, I would have been found to impersonate a professional officer, would have been court marshaled, and the American dream would have ended in tragedy. I'm happy to be able to relate that a few days later Mr. Bernstein was demobilized as a chronic invalid, survived the Holocaust, married a widow after the war, and died in his seventies.

Two days after the lucky conclusion of this incident, I received a call to report at a military hospital in Budapest. When I got there I found about 30 other young physicians waiting anxiously. It turned out that we were called up to fill medical vacancies on the Russian front. One by one the young doctors were interviewed in another room and reappeared in a gloomy mood. As I was waiting there, the Chief Catholic Chaplain of the Budapest division came into the room. He was a patient of mine in the Szanatorium and when I went into private practice he remained my patient. He was a nervous, hypochondriac man who was in my office every week with a new complaint. When I told him why we were there he became very agitated and said, "You must not leave Budapest." He went into the room where the interviews were held, but must have left through another door, because I did not see him again. When only two or three of us were left waiting, a sergeant told us that we could go home.

Finally, September 12, 1941, the day of our departure arrived. We were only allowed to take one small suitcase each. A large part of mine was occupied, of all things, by a top hat. This top hat has had an interesting story. In 1938 we had a formal wedding and I wore a cutaway and top hat. After the wedding dinner at my in-laws' house, I had to change into uniform to

leave on our short honeymoon, and the top hat ended up way back on the top shelf of a coat closet. We all forgot about the top hat until the time came to pack our personal belongings and my medical equipment for transport by train and boat to the United States; we looked for it everywhere without any luck. I have to explain at this point why the top hat was so important to me. In 1936 when I attended my first international medical congress in London, many of the English speakers wore cutaways and carried a top hat. I imagined that this was also the custom in the United States and that if in the future I would ever become important enough to give a lecture at a meeting, I needed a top hat.

The day before the departure, the top hat was accidentally located. I decided that I must take it with me. It was placed upside down in the small suitcase and filled with socks. The good-natured customs officer took one look at my open luggage and, thinking that I must have concealed some contraband in the top hat, quickly put the lid down, and proceeded to check Edith's luggage.

After we became familiar with American customs, I realized that for me the need for a top hat was nil and it found its way to the attic. When we were already living in Pittsburgh and our second daughter, Judy, was about five years old, she located the top hat and used it for a couple of years as a part of her Halloween costume. One day I received a call from a Hungarian friend who taught economics at Duquesne University. He was a devout Catholic, active in religious affairs, and was elected a Knight of Malta. He was supposed to wear a top hat at his inauguration. With his meager salary this created a problem. For some reason he assumed that, of all people, I may have a top hat. Luck was with him and I told him he could have mine. He wore the rejuvenated top hat at his inauguration and once a year thereafter at the Annual Parade of the Knights of Malta. When I last saw him a few years ago, he still had the top hat. He died shortly thereafter and I lost track of the top hat.

After the brief encounter with my top hat, the customs inspector turned to my wife's suitcase which had a cookbook on the top of her meager belongings. Seeing the cookbook he exclaimed, "Your poor husband will have to eat what you cook from a book," and that was the end of the inspection. He didn't even check the jewelry Edith was wearing and carrying in her purse. The ruling at that time was that emigrants could take with them the amount of jewelry that was "commensurate with their social standing." We interpreted this regulation very liberally and Edith, in addition to the little jewelry she had, also carried her mother's more substantial jewelry, as well as all the gold chains we could purchase. She pinned most of the jewelry on her blouse, which she wore under a tailored coat. She, as well as our daughters, are averse to wearing anything but the simplest, cheapest jewelry, but on this occasion she looked like a Christmas tree. Thanks to the benevolent customs inspector, we got away with it. In our first few years in America the jewelry served as the reserve we could fall back on if needed. We never had to touch it and it is still resting in a safe deposit box, unused, waiting for a "rainy day" which we hope will never come.

After a tearful goodbye to our families we had to board the plane and were off to the land of our dreams with broken hearts, worried to death about our beloved ones, most of whom we were never to see again.

Trip to the United States of America

After an intermediate stop in Prague, we landed at Tempelhof Airport. After disembarking, we stood around expecting to be detained overnight until our plane left for Lisbon. Nothing like that happened and nobody seemed to be interested in us. Finally, I asked one of the Lufthansa officials what to do. He asked if we had any hotel reservations in Berlin, and when he learned that we had none, he told us to leave our luggage at the airport, take a bus to the center of town and try to find a room somewhere. He added, "It won't be easy. Good luck." We did as we

were told and after some difficulty found a dark, dingy room in a rundown hotel. By that time it was early afternoon and we were both hungry. In our haste to get into town we forgot to bring with us the goose liver sandwiches, pastry, and fruit that Edith's mother so lovingly packed for us. We went down to the shabby restaurant to have something to eat. The first thing the old waitress asked for were our ration cards, without which you could not order a meal in Germany. When we told her that we had none she explained that everybody entering Germany must obtain ration tickets for the duration of his or her stay as soon as German territory is entered. She also told us that the only nonrationed item on the menu was dumpling soup. In due time she appeared with grayish looking liquid, with a potato dumpling of the size and texture of a cannon ball in it. From its look it was certain that it was made of rotten potatoes, and Edith, who was four months pregnant, after taking one look had to make a hasty retreat to the bathroom. I could not summon enough courage to taste it and followed her, leaving our midday meal untouched, much to the concern of the waitress about the spendthrift habits of foreigners.

After a brief rest, I decided to go out to see if anybody would follow me. Our hotel was near a Ubahn (metro) station. I availed myself of the age-old trick for detecting whether or not one is being followed. I went down to the Ubahn station on one side and came up on the other. When nobody followed me, I went back for Edith and we walked about Berlin, unhindered, taking mental notes of the bomb damage to the city. By September 1941 Berlin was bombed almost every night by the British, and there was evidence of considerable damage to buildings, including the Opera House. We also noted that some boulevards, like the Unter-den-Linden, were covered with camouflage netting to make them resemble parks. In our wanderings we came to an elegant looking pastry shop and decided to try our luck again. When we told our sad story to the young waitress, she took pity on us and, breaking the law, brought us two large pieces of quite

edible cake and some ersatz coffee. That was all we had to eat until the next morning when they gave us a good breakfast on the plane. We retrieved our luggage, minus the food package, which had disappeared over night.

There was a mixed crowd on the plane to Lisbon. Some were refugees, like us, who by some miracle could obtain space on the plane and some were Americans who were leaving war-torn Berlin. Among the refugees was an orthodox Jewish woman, Mrs. Grünberg, and her four boys from a part of northeastern Hungary, which after the first World War was ceded to Czechoslovakia, was returned to Hungary in 1938, and now is a part of the Ukraine. She told us later, when we sailed on the same boat to the United States, that her husband was a ritual slaughterer who obtained an “above quota” American visa as a rabbi and found a job as a cantor in an orthodox Jewish community in Cleveland. Over the years he saved enough money to pay for their transportation and the family was on their way to join him.

One of the other passengers was an American consular official returning home, who traveled with a beautiful blond Polish opera singer. We naively believed that they were married. We were very surprised when, after arriving in Lisbon, they said farewell to each other and went their separate ways. We met the lady once more in Boston, where she was singing with a touring opera company. Later for a while she performed with the Metropolitan Opera.

In Munich, the plane made a scheduled landing. All passengers were required to disembark and have their documents and baggage checked. Those who had any German currency had to turn it in or transfer it to a German citizen. Edith’s old governess was a “Sudetendeutsch” who after the annexation of that part of Czechoslovakia by Hitler in 1938 moved to Germany. While I was taking care of transferring our German money to her, Edith noticed that two young men, dressed in conservative dark suits, were looking at her and discussing something, evidently about her. After a short while one of them came over,

clicked his heels and asked her where she was going. She told him she was going to America, whereupon the man inquired, "How long do you intend to stay?" Edith replied, "It depends on many things." The man returned to his companion and after a short discussion they turned their attention elsewhere. I found Edith trembling when I got back to her. It was well known that the Germans used to blackmail emigrants to the West to spy for them by threatening reprisals to their families left behind if they refused to do so.

Before the plane took off we witnessed a terrible scene. It turned out that a German Youth Delegation required passage to Lisbon and there was not enough space for them on the plane. The Germans decided to force some of the passengers off the plane. One of those selected was the oldest son of Mrs. Grünberg. It was heart-wrenching to watch her reaction. She was about to lose her first born, and she was afraid to protest and thereby jeopardize the future of her three other children. However, miracles still happen. As we found out later, the boy arrived on the next day's flight to Lisbon and, because of what happened to our flight, got to Lisbon before we did.

Our plane landed once more in Lyon, in the "unoccupied" part of France. Shortly after takeoff our plane developed engine trouble and had to make a forced landing in Lyon. We were desperate. Our boat was scheduled to leave two days later from Lisbon, and we had no hope of getting there on time. The passengers were taken to a collaborationist restaurant on the second floor of a nondescript building and we were told that since no hotel rooms were available in Lyon we would spend the night in sleeping cars on a rail siding. We were promised that a replacement engine would be there by the next morning and that we would be in Lisbon the next evening. Naturally, we did not believe this to be possible under the prevailing wartime conditions. Our immediate problem, however, was to get news to our parents, whom we were supposed to telephone from Lisbon that evening. We sneaked away from the restaurant and since we

had no French money, we looked for a jewelry store and sold a gold chain. Then we located a post office and sent a telegram to Budapest explaining what had happened. It turned out later that the telegram never arrived. When we left the post office, we realized that in our excitement we had failed to memorize the address of the restaurant and, after our wanderings to find a jewelry shop and a post office, we had no idea how to find our way back there. The people we approached in our halting French were unfriendly and either did not reply at all or said that they could not help us. Finally, after several hours of frantic, haphazard search, we located the restaurant in time for the evening meal.

As we found out later, when we failed to telephone from Lisbon, our parents, with great difficulty, were able to contact the Hotel Métropole, where we were scheduled to stay and talked to a friend, John Dóci, who with his wife, was scheduled to sail with us two days later. He told Edith's mother that we had not arrived. One can imagine our parents' state of mind. According to all information available to them, we had disappeared in Nazi Germany with little hope of being heard of again.

When on the evening of the 11th of September we arrived in Lisbon, we immediately tried to reach Budapest by phone. Edith persisted throughout the night and part of the next day until we had to embark on the boat, scheduled to sail at 4:00 p.m. Before leaving the hotel we gave all of our Portuguese money to the telephone operator, begging her that if she succeeded in reaching Budapest, to transfer the call to the boat.

After embarking we stayed on deck near the phone connected by a cable to the wharf, hoping against hope for our call to come through. It seemed that our prayers would not be answered and we would be unable to relieve our families of their terrible worries. The call went out for visitors to leave, and a dockhand was rolling up the telephone cord and was about to remove the plug from the socket at the end of the cable when the telephone rang. It was Edith's mother, who never gave up on anything and was miraculously able to get a connection from

Budapest to Lisbon. Edith half crying, half laughing gasped into the phone “We are both safe on board, sailing in minutes.” Her mother answered, “You left your raincoat at home, but I will send it.” These were the last words we could exchange with our families for over five years. Then the line was disconnected and the boat left, taking us along with our frayed nerves. We were emotionally exhausted, but much relieved.

By the way, Edith’s mother did manage to send Edith’s raincoat. A few weeks after we arrived, when we still lived with the Robinsons in Plainfield, New Jersey, we received a call from Dr. J. Lax who told us that he had Edith’s raincoat and we could pick it up in New York. Dr. Lax was a famous internist in Budapest whose patients included many members of the diplomatic corps. He managed to get out of Budapest with his family a few weeks after us and got safely to the United States. He settled in New York and in due time became an equally famous internist there. His patients included many stars of the entertainment world, politicians, high officials, and diplomats. After years of faithful service for the purpose it was made for, Edith wore the raincoat to work in the garden for many more years.

Our transatlantic crossing was rather uneventful, except that the *Excalibur* was part a passenger boat and part a freighter. On this trip it carried a large load of raw cork. Raw cork has a penetrating, unpleasant, nauseating odor. Edith, who was already fighting morning sickness, was violently seasick throughout the crossing and could not enjoy the gourmet food they served us.

The boat made a stop in Bermuda, and British Intelligence interrogated the passengers who came through Germany or German-occupied countries. I was singled out for a long interview. My interviewers were very pleased with the information I could give them about conditions in Berlin. They must have notified their American counterparts; when a tugboat put the pilot on board before entering New York Harbor, the intelligence people who came aboard with the pilot again singled me out for an interview. While the other passengers were viewing in the dis-

tance the fabled skyline of Manhattan and the Statue of Liberty, I was responding to endless questions in a cabin.

Finally, the great moment arrived and we stepped on American soil. We were met by Mr. and Mrs. Robinson, who came for us in a Buick, driven by a part-time chauffeur whom they used when they went on longer trips. It was a joyous moment not only for us, but also for the Robinsons. As the correspondence I received from Mrs. Robinson after Mr. Robinson passed away shows, for three years he spent enormous time and energy in making this reunion possible. His efforts, in all probability, saved our lives and made it possible for us to build a new existence and raise a happy family in the United States of America. I always felt that the only way I could try to repay, at least in part, what the Robinsons did for us was to attempt to help, to the best of my ability, those needing help.

Part Two
LIFE IN THE UNITED STATES

Relating the memories of the first part of my life, spent in Hungary, has been a simple task. Attempting to present cohesively the greater part of my life, spent in the United States, which has been influenced by and intertwined inseparably with the gradual and still incomplete transformation of the practice of anesthesiology from “an art possessed by few to a science, that can be taught to many,” is more difficult. After pondering many hours on a logical solution to the problem, I found none and decided to interrupt, from time to time, the chronological narrative to express my views and experiences that may be of interest to anesthesiologists of the present and future generations, and perhaps (tangentially) also to a wider readership. This might appear to be a disjointed approach, but life, just like a river, doesn’t flow in a straight line. Rather, it is a combination of straight stretches and curves. I am convinced that pondering about trends in the development of the science and practice of anesthesiology and my interaction with many of the outstanding personalities of the world of anesthesia in the second half of the 20th century had a strong influence on the development of my character and on the course of my life. I will discuss my few contributions which may withstand the ravages of time and will describe, honestly, my shortcomings and what I would do differently if I were to be given a second chance.

1. SETTLING IN

Our first impressions of the United States were depressing. On our way from Hoboken, New Jersey to U.S.1 we drove through desolate terrain. Small and large industrial plants and haphazardly built communities followed one on the other. The view from U.S.1 was not much improved. The highway wound its way through barren fields, flanked by garbage dumps, oil refineries, and gasoline storage tanks. The odors emanating from the burning garbage and plants, to say the least, were unpleasant. We were wondering about the discrepancy between what we saw and the inscription on the automobile license plates proudly proclaiming New Jersey the “Garden State.” I remember whispering to Edith “Garbage State” would be more appropriate. We were greatly relieved when, turning off U.S.1, we started to drive through beautifully kept farm lands, interrupted by small clumps of trees. Our relief became complete when we entered Plainfield, the home town of the Robinsons, and saw its wide, tree-lined streets, the mostly white, large homes, surrounded by well kept lawns bordered by bushes or flower beds. Coming from Central Europe, where similar substantial houses were built of brick or stone, we were surprised to see that here most of the houses were constructed of wood. We learned only later that these wooden houses were comfortable to live in and withstood the ravages of time for centuries.

The life in the Robinson household was strictly regulated. They had a maid and a cook who came in the morning and left after dinner. The maid’s husband was their part-time chauffeur. They were Black and had been with the Robinsons for many years. The Robinsons were extremely considerate of them. They were treated more like relatives who helped out than hired help. Mr. Robinson insisted that dinner should be served exactly at 6:00 p.m. so that the girls could leave for their home at a reasonable hour.

Breakfast was served at 8:00 a.m. and lunch at noon, which was a little hard for Edith who was four months pregnant at that time, suffered from morning sickness, and would have liked to sleep a little longer and eat breakfast later. She also had trouble with the food, different from what she was used to. She ate little at dinner and became very hungry by 9:00 p.m. I used to smuggle some bread and cheese into our bedroom for her. Another problem was the weather. The fall of 1941 was unusually warm and humid. Air conditioners were not yet in vogue at that time and Edith suffered much from the heat.

After about three weeks we felt that we should not impose on the Robinsons' generous hospitality any longer and moved to a rented room where Edith could also use the kitchen. The cookbook she brought with her became very useful and I served as an uncomplaining guinea pig.

It was Edith who was the first to have a gainful occupation in the United States. She became a model for a group of ladies from the local Unitarian Church who attended a drawing class. She received \$2 per morning session. Only once more did Edith make any money. This was in 1943 when we were living in Cambridge. For three months she took care of the infant daughter of one of our neighbors whose mother attended a course. She was paid \$50 a month. We decided to splurge and spent the money for a week's ski vacation at Pinkham Notch in New Hampshire. The \$150 was sufficient for all the expenses, including the baby-sitter for our infant daughter Eva.

Immediately after our arrival I started to look for work, preferably in the medical field. The situation I faced was difficult. Between 1938 and 1941 I asked my non-Hungarian patients to send my honoraria to Mr. Robinson for safekeeping. By the time we arrived he collected about \$1,000 for us. We also had the jewelry Edith had brought out and a few diamonds smuggled out partly by me and partly by friends. We correctly foresaw that our families would desperately need these resources at the

end of the war and were determined not to touch these meager reserves, except in a crisis.

To be able to work as a physician I had to pass the Medical Licensing Examination in one of the few states in which graduates of foreign medical schools were admissible. The examinations at that time were essay types. Because of the language barrier this was a great handicap for foreign physicians. I was told that almost all foreign graduates failed these tests and had to repeat these exams many times, over several years, before they finally passed.

Without wasting any time, I wrote to the few contacts I had in the United States. One of these was a Hollywood movie producer who, together with his actress wife, had stayed in the Svábhegyi Szanatorium in 1937. He was much impressed with the organization of this health resort and stated that he would try to raise capital for the establishment of a similar institution in California and put me in charge of it, if ever I could get there. In response to my letter, his secretary answered that Mr. X was in England supervising the production of a war movie. Much later he wrote to tell me that, because of the war, he had abandoned his plans. By that time, however, I was well on my way towards a career in anesthesiology.

I also informed a distant relative, Theodor von Kármán, head of the Jet Propulsion Laboratory in Pasadena, of our arrival. I got no reply. I was very offended and never tried to get in touch with him again. I realized only much later that by the end of 1941, he must have been involved up to his ears in secret war work and had no time, or perhaps was not even allowed, to correspond with “enemy aliens.” I also visited the husband of one of Edith’s cousins who was the President of a shipping line in his impressive Wall Street office. He wished us well and after a few minutes excused himself, claiming urgent business.

I next approached the New York office of the Committee for the Resettlement of Foreign Physicians. They sent me to a prominent, elderly New York physician. He was very kind to

me, invited me several times to lunch, and even took me along on house calls to his wealthy patients. I was much impressed that his fee for a house call was \$100. He talked about many things, except plans for my future as a physician. After a while I realized that his interest in me was perhaps other than professional and I stopped trying to get help or advice from him.

I was next directed to a prominent surgeon at the Beth Israel Hospital in Boston. At that time the least expensive way to travel from Plainfield to Boston was to take an overnight boat from New York to Providence, Rhode Island and continue from there by bus to Boston. When I arrived at the hospital, the professor's secretary told me that he was busy and that I should come back two weeks later. I was desperate, but then I suddenly remembered that in 1935 I had met briefly a young Harvard Professor of Medicine, of Hungarian descent, in Budapest. I called his office and much to my surprise and delight he agreed to see me at once.

This man, Professor Soma Weiss, who was so important for the future course of my life in the United States, was born in Transylvania and attended three years of medical school in Budapest. He was a student assistant in the Biochemical Institute for a year. He then emigrated to the United States and completed his medical training at Harvard. Subsequently, he had a meteoric career and by age 40 was Physician-in-Chief at the Peter Bent Brigham Hospital and Professor of Medicine at the Harvard Medical School. In 1934, when he returned to Hungary for a vacation and visited the Biochemical Institute, I was introduced to him. He remembered me and very kindly asked me about my plans. I told him that I was an internist, qualified by the Hungarian Board of Internal Medicine, and wanted to have an academic career in that specialty. He said that I would be welcome to join his department, but that first I must have a year or more of residency training, the length of which was to be determined by the American Board of Internal Medicine. He also told me that I could not start a residency in his department

before July 1, 1942. I thanked him, and told him that my wife was expecting a baby in March, 1942, and it was imperative that I should have some gainful occupation to carry us over to the start of my residency. He referred me to Professor Otto Krayer, a Jewish refugee from Germany, who at the time was the Head of the Pharmacology Department at Harvard. He had no position for me, but told me that Professor Henry K. Beecher, the recently appointed first Professor of Anesthesiology at Harvard and Anesthetist-in-Chief at the Massachusetts General Hospital, was looking for a research fellow. Luckily, he was able to see me the same day and after a brief interview offered me a Research Fellowship with an annual salary of \$2,000, with the understanding that on July 1, 1942, I would start my residency training in Internal Medicine with Professor Weiss. I didn't foresee that providence had other plans for my future.

But let me continue in an orderly fashion. I was deliriously happy and went to the first public phone to call Edith with the good news. I must have talked too loud in Hungarian, because when I finished my conversation and left the booth, a middle-aged gentleman addressed me in Hungarian. He was Dr. George Kelemen, an Ear-Nose-and Throat Specialist who used to be a "Privat Dozent" (Assistant Professor) at the University of Pécs Medical School, but practiced in Budapest and knew Edith's family very well. At that time he worked in the Ear-Nose-Throat Outpatient Clinic at Tufts Medical School. Later he had a Research Fellowship at the Eye and Ear Hospital in Boston and ended his illustrious career as the foremost expert in the comparative anatomy and pathology of the ear and larynx at the House Ear Institute in Los Angeles. He was active until his last day when, at age 94, he died in an accident. Dr. Kelemen, who by that time had been living in Boston for several years, "adopted" us, helped with advice whenever necessary, and introduced us to many of the other Hungarian immigrants living in Boston. These fortunate developments occurred late in November so that we were still able to communicate the good news

to our families. You can imagine their relief.

We moved, again traveling by boat via Providence, Rhode Island, to Boston. On the crowded bus, a nondescript, mousy man started to talk to Edith. It quickly became evident that he was a communist agent, who wanted to solicit Edith to join the party.

In Boston we first stayed in a rented room that had an open fireplace. Partly to economize and partly because I was longing for some Hungarian food, Edith decided to cook some “paprika potatoes” with hot dogs (still one of my favorite dishes). We were not supposed to cook in our room, but everything went unnoticed until Edith started to wash the dishes in the sink of the common bathroom, used by several other boarders. The washing and drying of the dishes must have taken too long and after a while there was angry banging on the door. When Edith finally opened the door, there was a delegation, including the landlady waiting for her. She immediately gave us notice, murmuring about the barbarian habits of Hungarians.

Fortunately, by that time we were the proud owners of a lease of a tiny townhouse at 108 Holden Green in Cambridge. Harvard University owned these small houses, which were reserved for low-income Harvard employees. One entered the house straight into a common room which served as a combined living room, dining room, and entrance hall, with a steep staircase leading upstairs. Behind the room was a narrow kitchen with a back door to the alley which separated our row of houses from another similar one. A staircase led to the basement, the chief ornament of which was a coal furnace. I soon learned how to manage it, but in 1942 when I became a resident and often could not come home for 48 hours, it became a problem to keep it going. But good neighbors helped out.

I started to work on December 1, 1941 and Edith had to assume all the work and responsibility for furnishing our first home in the United States. She managed to do this within two weeks, spending a grand total of \$150. I don't think there was

any used furniture dealer in the Greater Boston area she did not visit. She also looked through the used furniture stock of the Salvation Army and similar organizations. The end results of her efforts were very pleasing and within two weeks we had a simply, but tastefully, furnished little home, with a tiny room waiting for the arrival of our first child.

But even before the furnishing of our home was completed, the tragic news of Pearl Harbor hit us. We had been invited for Sunday dinner by a Hungarian physician who was a classmate of my brother, Béla, in gymnasium. After dinner we went for a ride. We heard the news over the car radio. Selfishly, our first thoughts were: "Will it be possible to communicate by mail with our families?" Before leaving Hungary, we had arranged that, in case of the anticipated entry of the United States into the war, we would occasionally write to a distant relative of Edith's who lived in Switzerland without any reference to our families in Hungary, and that she would then forward the news to Budapest. The correspondence with "Tante Irma" worked all right for a while. In March of 1942, however, we received a letter from the Office of Censorship instructing us to desist from communicating with our relative in Switzerland. A telegram informing Aunt Irma about the birth of our first child, Eva, on March 21, 1942, miraculously got through. Otherwise, except for a Red Cross telegram informing me of my father's death in the spring of 1943, we had no communication with our families until an American Military Mission arrived in Budapest in the spring of 1945.

2. THE HARVARD YEARS, (1941-1947)

As already mentioned, I started to work in the Anesthesiology Research Laboratory of the Massachusetts General Hospital/Harvard Medical School on December 1st, 1941. The modest laboratory consisted of two rooms located next to Professor Beecher's office on floor 3A of the "White Building," right above the operating rooms. Next to our lab was the equally modest Surgical Research Lab.

At the time I joined the lab, a young physiologist, Francis Craig, Ph.D., and a technician, Miss Ann Murphy, M.S., were working there. Francis Craig and I soon became close friends as did our wives. Francis's wife, Mary, was a dietitian, who told us that a lunch consisting of a peanut butter sandwich, thickly strewn with raisins, was the best value for the money from the point of nutrition. This "delicious" fare became my daily lunch on weekdays until September 1942 when I became an anesthesia resident and received free lunches at the hospital. I must admit, however, that I am not fond of peanut butter, in any shape or form, anymore.

The most illustrious occupant of the Surgical Research Lab at that time was a German-Jewish refugee, Dr. Fritz Lipman. He was an introvert who kept to himself. When he was thinking about something, he used to walk up and down the corridor in front of the labs for several hours, forgetting about lunch and not responding to anybody's greetings. Occasionally, I had to use the evaporating hood in his lab which he seemingly did not like very much. Several years later when he was already working at the Rockefeller Institute in New York and I had been in Pittsburgh for several years, I read in the papers that Professor Lipman had received the Nobel Prize for his seminal work with co-enzyme A. The congratulatory telegram I sent him said: "I never realized I had been so close to a Nobel Prize," but I never received an answer.

A few days after we arrived in Plainfield, I went to Philadelphia for an interview with the Secretary of the National Board of Medical Examiners and filed a petition to be allowed to take their examination. My petition was approved at the next meeting of the Board. At the same meeting, however, the Board passed a resolution that in the future graduates of foreign medical schools would not be eligible to take their examinations. This taught me the lesson that if something has to be done, it should be done promptly, which has been a guiding principle for the rest of my life. Accordingly, as soon as we settled in Cambridge in December, 1941, I also applied for permission to take the Licensing Examination of the Massachusetts State Board of Medical Examiners. At that time Massachusetts was one of the few states in which a graduate of a foreign medical school was admitted to the licensing examination. Later I found out that having passed the three parts of the examination given by the National Board of Medical Examiners did not do much good for me. While graduates of American medical schools who passed this examination could get licenses, by reciprocity, to practice medicine in 41 of the 48 states of the United States, graduates of foreign medical schools could only get such a license in New York State.

After starting to work in Dr. Beecher's lab, I once more settled down to a Spartan routine, in some respects similar to the one I pursued during my medical school years. I awakened every morning at 5 a.m. and studied for the licensing examination until 8 a.m.

After a quick breakfast I bicycled to the Massachusetts General Hospital. The used bicycle was purchased for me by cousin Ernest in Philadelphia for \$5 and shipped for another \$2. This bicycle was my only means of transportation until September, 1942, when I could afford to purchase a used 1937 Ford.

I worked in the lab until 5:00 p.m., helped Edith, who had a difficult time during the last third of her pregnancy, to prepare dinner and wash up after it. At about 7:00 p.m. I settled down for another few hours of study and then went to bed at 10:00

p.m. On Saturdays and Sundays I also studied five to six hours a day.

Much to my surprise, a few days before the birth of our first child, Eva, on March 21, 1942, I passed the licensing examinations and exactly six months after arriving in the United States I was licensed to practice medicine in the state of Massachusetts. I was told that in the last few years I was the only one who passed this essay-type exam on the first try. Undoubtedly, being fluent in English and having read the *Lancet* assiduously for many years had been a great help. But I am getting ahead of myself and will get back to the tragic event that changed the course of my life.

On December 31, 1941, we had been invited to the home of Professor Soma Weiss for a New Year's Eve party. Because of the war the mood was subdued, but Professor Weiss seemed to be in excellent health. Then a few days later we received the tragic news that Professor Soma Weiss, at age 44 at the apex of a brilliant career, had two episodes of massive subarachnoid hemorrhage and passed away. In retrospect, if his cerebral aneurysm would have ruptured a few years later there would have been a good chance that he could have been saved by the then introduced surgical intervention. Although I realized its relative insignificance compared with the many, much more important consequences of this immense tragedy, I could not escape the significance of Professor Weiss's sudden death on my own future. My hopes of entering academic medicine under his auspices were ruined. My research fellowship was to expire on June 30, 1942, and without a license to practice medicine I saw no prospects to support my family. The period between Professor Weiss's death and passing my licensing examination was one of the worst in my life. Overworked and worried, for the only time in my life I developed a cardiac arrhythmia. It did not help that about four weeks before her due date, Edith developed toxemia. Her obstetrician recommended artificial induction of labor. After an uneventful delivery of a healthy baby and receiving the

favorable results of the licensing exam, my outlook on the future improved and the arrhythmias ceased, never to return. By then most of the physicians of military age had joined the army and there was a shortage of physicians available to take care of the medical needs of the civilian population. I was offered a part-time position at the Pratt's Diagnostic Hospital of Boston University and was planning to start a family practice in one of the suburbs after June 30th.

Meanwhile, by the end of May, I had completed my research project on the "Influence of Cholesterol Administration on Anesthesia." I gave the first draft to Dr. Beecher in the morning and in the evening he gave me back the corrected manuscript, which was published without any changes in *Experimental Pharmacology and Therapeutics*. In my experience, Dr. Beecher's mastery of medical writing was unsurpassed. I learned much from him about presenting facts in logical order with minimal verbiage, but I never came even close to imitating his superior style.

I had practically no contact with Dr. Beecher during the six months I worked in his laboratory. Therefore, I was surprised when his secretary told me that he wanted to see me in his office. He went straight to the point and offered me a residency in his department. He told me that he had found a sponsor who would underwrite a special salary of \$2,400 per annum. Considering that at the time a resident's salary at the Massachusetts General Hospital was \$500 per annum, this was a very generous offer. He added that he could also arrange for me to become a part-time assistant in the hematology course taught by Dr. Wyman Richardson to second year medical students, and thereby earn a little more money. He pointed out that anesthesiology, after close to 100 years existence, had arrived at a cross-road and was on its way to change "From an art possessed by few to a science, that could be taught to many." He told me that he was interested in attracting people into the specialty who were interested in research. Finally, he told me in confidence that he would

enlist in the army soon and leave for overseas duty with the Harvard Unit. I received his generous offer with mixed feelings and asked for 48 hours to consider it. On one hand I was reluctant to leave my first love, Internal Medicine, on the other hand, Dr. Beecher's generous offer would enable me to join the faculty of one of the leading academic medical institutions, the Massachusetts General Hospital/Harvard Medical School, and at the same time provide financial security for my family for the foreseeable future. I discussed the choice I had to make with my physician friends who unanimously were of the opinion that, for my future career in the United States if I had the opportunity to do anything (even to wash dishes) at Harvard, it was preferable to any other choice.

I followed their advice and accepted Dr. Beecher's offer to start my anesthesiology residency on September 1, 1942. On this occasion Dr. Beecher also told me that, although I would be very busy during my residency, he would be very grateful if I would do whatever I could to have some research going in his laboratory.

A few days after I signed my residency contract, I got a telephone call from Atlanta, Georgia, from Dr. Eugene Stead. He was one of the senior associates of Dr. Weiss at Harvard and was recently appointed Professor of Medicine at Emory University Medical School. He said that the late Dr. Weiss had a very good opinion of me and he offered me a residency in his department, with the understanding that as soon as I would be judged eligible by the Board of Internal Medicine, I would receive a permanent position on his staff. His offer was very tempting, but I could not make myself break a contract. I explained this to Dr. Stead and politely refused his offer. If he had called a few days earlier, I would be a retired internist at this time.

After Dr. Beecher left with the Harvard Unit, Dr. Julia Arrowood was in charge of the skeleton anesthesia department at the Massachusetts General Hospital complex. There was one more trained anesthesiologist, Dr. John Garret, who was in charge

of anesthesia at the Baker Memorial Hospital which catered to semiprivate patients. Another was a Canadian anesthesiologist, Dr. Howard Elliot, who worked half-time at the White Building where most of the patients were charity cases. When I started my residency, there was just one American female, a second year resident, in the department. There were many nurse anesthetists, most of them trainees, because many of the trained nurse anesthetists also left with the Harvard Unit. With this staff we had to cover 10 operating rooms in the White Building, two operating rooms and two delivery rooms in the Phillips House, which catered to wealthy, private patients, and also several other locations such as the X-ray department, emergency room, and cystoscopy rooms. Occasionally, an elderly anesthesiologist in private practice gave anesthesia in the Phillips House. I vividly remember that he used to carry in his shirt pocket a solid gold spinal needle, which he used to wipe off with alcohol before use. *Mirabile dictu*, I never heard of any complication caused by this technique.

In line with the puritanical Boston tradition, the quality of the operating rooms was inversely proportional to the social and financial status of the patients. The operating rooms in the White Building were spacious, well-equipped, and centrally air-conditioned; those in the Baker Memorial were less spacious and lacked air-conditioning; those in the Phillips House were cramped, located on the top floor, and were unbearably hot in summer.

With this meager staff and inadequate facilities we had to satisfy the anesthetic requirements of perhaps the greatest accumulation of surgical talent ever assembled at one institution at any one time. To mention a few, there was Dr. Churchill, one of the founders of intrathoracic surgery, and his brilliant associate, Dr. Richard Sweet; Dr. Linton, an innovator in large-vessel surgery; Dr. Reginald Smithwick, who developed the technique of thoraco-lumbar sympathectomy; and Dr. Arthur Allen, the innovative, unsurpassed master of abdominal surgery. Professor

Smith-Peterson, the head of orthopedic surgery, had devised the technique of hip-pinning; Professor Vincent Meigs was the foremost master of radical surgery for gynecological cancer. Dr. Oliver Cope and many others were also included in this talented array of surgeons.

Dr. Julia Arrowood was a single lady, about 10 years my senior. She was a tough task-master who could on occasion be very hard on people. She was a gifted, skillful anesthesiologist, who was, unfortunately, too busy to teach. After having been shown the techniques of tracheal intubation and spinal puncture, I was left to my own devices. Whatever I learned had to come from observing Dr. Arrowood and others, but mainly from experience. I tried to supplement this by reading voraciously whenever I had the time which, because of my grueling schedule, was woefully little. After a few weeks I was on call every other night and every other weekend and had to work a regular day after being on call, sometimes after only a couple of hours sleep. My attempts to snatch a little sleep were often jeopardized by visits from an orthopedic resident who had a less exacting schedule than I. He was the younger brother of the famous Hungarian conductor, Eugene Ormandy. László was a nice but neurotic young man who had a hang-up about the overbearing personality of his famous brother. He complained endlessly about how he resented that whenever he was introduced to somebody, the first question always was, “Are you related to the famous conductor?” One evening, when I was especially sleepy and he again started on the same topic, I stopped him and said, “Look László, in a few years when you finish your residency, you will become a famous orthopedic surgeon and then, when your brother, the conductor, will be introduced to somebody, he will be asked, ‘Are you the brother of the famous orthopedic surgeon?’” He got the message and afterwards I got a little more sleep.

My “baptism by fire” occurred shortly after I started my residency. The occasion was the Coconut Grove Fire, which re-

sulted in the greatest loss of life that ever occurred in a single building in the United States up to that time. Coconut Grove was a night club frequented mainly by young enlisted men in-training or in transit to Europe and their dates. It was a crowded Saturday night with more than double its legal occupancy. The establishment was generously decorated with plastic bunting. Most of the exits were barred to prevent unpaid entry. Suddenly, the decorations caught fire which spread rapidly, like after an explosion. Panic broke out, and many people were trampled to death, and many more died of smoke inhalation, extensive burns, or combinations of both. Several hundred who survived had third degree burns, often involving the upper respiratory tract. Over 100 of these unfortunate, mostly young men and women were admitted to the Massachusetts General Hospital. Compared to the scenes in the wards, Dante's Hell would have looked like the Garden of Eden. Professor Oliver Cope took charge of organizing the care of the seriously injured patients. It was the first time in my life that I was faced with the concept of triage, separating and treating preferentially those who had a chance to survive from those who did not. The already depleted and overburdened medical and nursing staff performed heroically. For the first few days after the disaster the operating rooms were functioning around the clock. Surgeons, anesthetists, and nurses got little or no rest for a week. I was unable to go home for eight days. We all learned, as we went along, how best to handle the fluid and metabolic requirements of burn patients. I'm sure that our findings were passed on to the medical authorities of the armed forces and that this information was instrumental in saving the lives of many soldiers, sailors, and airmen in the long, vicious war still ahead.

Edith and I were peripherally affected by the Coconut Grove tragedy. The parents of a young girl who entered Radcliffe College that fall asked us to keep an eye on her. Two weeks before the disaster we invited her and a young son of my mother-in-law's best friend, a lieutenant in the army, for dinner. As we

learned later, the young lady invited him to join their party on that fateful evening at the Coconut Grove. Fortunately, he had other plans and could not accept the invitation. It seems, however, that nobody can escape his fate. After fighting his way through Europe unscathed, he was sent to Hungary as a member of the first American military mission. While there, he had an automobile accident and, at age 26, died on the spot.

It might be of interest to present day anesthesiologists to learn about the agents, equipment, and techniques in use at the Massachusetts General Hospital when I started my anesthesiology residency. The mainstay of general anesthesia was ether. Cyclopropane was taboo. Dr. Beecher was scared of its explosive properties and its arrhythmogenicity. At that time it was unrecognized that cyclopropane had another undesirable property: It caused constriction of the precapillary arterioles and shunted the oxygenated blood away from the capillaries that supply the tissues with oxygen. The result was that the oxygen concentration of the venous blood was higher than normal and the pink blood created the false impression that the tissues, which were actually deprived of oxygen, were well oxygenated. Later I realized that cyclopropane was not only an anesthetic agent, but also a “religion.” The disciples of the great Ralph Waters, who did so much to establish a scientific approach to anesthesiology, believed implicitly in cyclopropane, especially because the agent was introduced by him into anesthetic practice. To these individuals, many of whom were the leading anesthesiologists of the era, to criticize cyclopropane was heresy.

In addition to ether, nitrous oxide was used frequently, and vinyl ether occasionally for short periods, to facilitate induction of anesthesia. Of the intravenous anesthetic agents, thiopental was being used with increasing frequency. Evipal, introduced in Germany a few years earlier, was not used. Of the local anesthetic agents, procaine (Novocain®) was used almost exclusively for infiltration anesthesia, for rarely used peripheral nerve blocks, and for spinal anesthesia for procedures lasting less than one

hour. For surgical procedures of longer duration, tetracaine (Pontocaine®) and, occasionally, dibucaine (Nupercaine®) were used. There were no intrathecal catheters but we could give continuous spinal anesthesia using the Lemmon technique. With the patient on his or her side, a malleable needle was inserted into the subarachnoid space. A small diameter rubber catheter was attached to the proximal end of the needle, which then was bent almost 90 degrees and taped to the patient's back. The patient was turned carefully on his back, avoiding dislocation of the needle, onto a rubber mattress, with an appropriate cutout, that avoided pressure on the needle, and gave access to the catheter and the syringe attached to it. Later, together with Dr. Arrowood, we developed a method for the maintenance of spinal anesthesia with the continuous infusion of a local anesthetic. This technique, however, became obsolete after the introduction of continuous peridural block. For incision of boils and similar superficial operations, the area was frozen with ethyl chloride spray. A more radical form of cryoanesthesia was used for the amputation of gangrenous lower extremities. The involved limb was packed in ice for several hours and amputated without any additional anesthesia.

Anesthesia machines were simple. They consisted of flow meters for oxygen, nitrous oxide, cyclopropane, very rarely for ethylene, and almost always for carbon dioxide. Many anesthesiologists used carbon dioxide to increase the minute volume of respiration at the end of anesthesia, which facilitated the excretion of ether via the lungs. They did not realize that by creating respiratory acidosis, they were adding insult to injury for the patient already suffering from ether-induced metabolic acidosis. Naturally, the use of carbon dioxide for this purpose was forbidden by Dr. Beecher, who in a monograph entitled, "The Physiology of Anesthesia," discussed extensively the ill effects of respiratory and metabolic acidosis. The anesthesia machines had a circle system into which a small (about 500 ml) soda lime absorber was incorporated with a breathing bag that made it

possible to assist the patient's spontaneous breathing. Controlled ventilation was only used as an emergency measure. Ether was administered either by dropping it directly into the breathing bag, or by allowing part of the inhaled gas mixture to pass over the ether, in a bottle equipped with a wick. Sometimes, especially in children, a to-and-fro carbon dioxide absorber was used. With the to-and-fro technique, both the inhaled and exhaled air went through an absorber, the size of which varied from about 50 ml in infants to 250 ml in adults. The to-and-fro absorbers got hot quickly and the soda lime had to be changed frequently. The soda lime also had to be changed in the circle systems every hour or two.

We had no oxygen or carbon dioxide analyzers and could not measure the concentration of ether administered to the patient. The patient's heart rate, blood pressure, and ventilation were observed at regular intervals, but electrocardiographs were seldom used in the operating rooms and intra-arterial blood pressure, central venous, or pulmonary artery pressures were difficult to measure and rarely done.

There were no cuffed endotracheal tubes available and if it was necessary to produce an airtight ventilatory circuit, either the pharynx was packed with wet gauze or a tight face mask was placed above the proximal end of the endotracheal tube.

The only good thing about the available equipment was that it was inexpensive and simple. The most up-to-date anesthesia machine in 1941 cost less than \$300. Because it was simple, it was easy to use and the attention of the anesthesiologist was not diverted from the continuous observation of the patient by the multiplicity of gadgets.

The conduct of smooth, safe ether anesthesia was more an art than a science. You either had it or you didn't. For estimation of the depth of anesthesia we had to rely on eye signs, heart rate, blood pressure, and the rate and depth of breathing. It was not very scientific but still much better than in most other parts of the world, including some of the European countries, where

anesthesia was administered by the most junior surgical assistant, a medical student, or, not infrequently, by an orderly. Under these circumstances, there were only two accepted signs of anesthesia: 1. the patient stopped breathing, in which case they discontinued dropping ether or chloroform; and 2. the patient attempted to remove himself from the OR table, in which case they “poured” the anesthetic on.

With these agents, equipment, and techniques we had to provide adequate operating conditions for the rapidly developing thoracic, open heart, neurosurgical, large vessel, and radical cancer surgical procedures. The situation can be best illustrated by describing the technique used for the provision of anesthesia for intracranial surgery, showing the difficulties facing the anesthetist and the dangers to which the patient and the operating room personnel were exposed. Patients were induced with ether and intubated. Their pharynx was packed with wet gauze around the endotracheal tube and the tube itself was connected to a Richardson apparatus.

The depth of anesthesia was regulated partly by the anesthetist and partly by the patient. The anesthetist provided the stream of air for the evaporation of ether with foot-operated bellows and regulated the proportion of air used to evaporate ether. The patient in some respects controlled his own anesthesia by rebreathing less ether from the voluminous exhalation tube when anesthesia became too deep and tidal volume was low, and by rebreathing more ether when anesthesia became light and tidal volume increased. The respiratory rate was determined and tidal volume was estimated from the movements of a piece of tissue paper attached to the distal opening of the exhalation tube. When the patient was to be placed in the prone position, he or she was intubated with a Woodbridge tube. This tube consisted of a metal wire covered with a Penrose drain. It was flexible and did not collapse when bent into a 90° angle. In an effort to prevent spark formation and explosion, the surgical drapes were soaked with water. One can imagine how the anesthetist

must have felt administering anesthesia, with the setup described, to a patient in the face-down position undergoing occipital craniotomy. In retrospect I also wonder how we managed to avoid explosions when the neurosurgeon was using electrocautery less than 12 inches away from the patient's mouth.

A few months before I started my residency training, Dr. Harold Griffith in Montreal demonstrated that, with the help of curare, it was possible to produce good muscular relaxation for abdominal surgery in lightly anesthetized patients. It is remarkable that this great discovery was made in a small homeopathic hospital by an individual who had no formal training in anesthesia. Moreover, two research-oriented anesthesiologists, Professor Stuart Cullen of the University of Iowa Medical School and Dr. E. M. Papper of New York University, at first failed to recognize the immense possibilities afforded by curare. Dr. Griffith using a careful approach made the great discovery that revolutionized the practice of anesthesiology, made possible the development of balanced anesthesia, organ transplantation, and open heart surgery, and all but eliminated the concept of inoperability due to advanced pathology and extremes of age.

Dr. Henry Beecher was one of many great intellects who failed to recognize the tremendous possibilities afforded by muscle relaxants, such as curare, and the subsequently developed synthetic compounds. He forbade the use of muscle relaxants in his department and I don't think that before I left the Massachusetts General Hospital in July, 1947, I had used curare more than a half-a-dozen times.

In a way, Dr. Beecher's early antagonism to the use of curare is understandable. At that time the motto of anesthesiologists was *Dum spiro spero*, "as long as there is breath there is hope." Deliberate depression of the patient's breathing bordered on heresy.

Dr. Beecher did much of his early, excellent research on the pathophysiological effects of respiratory and metabolic acidosis and, therefore, his prejudice against curare was understand-

able. He continued his crusade against muscle relaxants at least until 1957, when he co-authored the famous Beecher-Todd report. In this colossal report he presented statistical proof, obtained from the analysis of more than 600,000 anesthetic records from ten academic anesthesia departments. His statistical data were valid, but the explanation of the data was not. He blamed the six-fold increase of the incidence of mortality encountered in patients who were given curare in the course of anesthesia on curare. Whereas the true cause, as pointed out in a joint publication by 18 respected anesthesiologists, was not curare but the way it was used. Later Dr. Beecher realized that “Good anesthesiologists deserve muscle relaxants and bad anesthesiologists need them” and frequently used these compounds in his own practice.

Considering the circumstances, we did pretty well with what we had. We had our share of postoperative pneumonias, metabolic disturbances, and occasional congestive heart failures. On the whole, however, I don't believe that the rate of postoperative (postanesthetic) complications and morbidity was much different from what is encountered nowadays in comparable groups of patients.

But let me get back to the early forties. In 1942 a few young South American physicians came for anesthesia training to the Massachusetts General Hospital. They usually were quite introverted young men who spoke almost no English. I especially remember two. One of them was Dr. Oscar Barretto from Brazil. He was an extremely shy and modest man of diminutive stature. Many years after he left, I found out that he was the son of one of the wealthiest families in Brazil. His family owned a ranch the size of Massachusetts, owned two banks, and had the General Motors franchise for Brazil. Edith invited him to our Christmas Eve dinner in 1942. He appeared with a beautiful doll that was bigger than our nine-month-old daughter, Eva. Edith, who in the meanwhile had become an excellent cook, prepared a very good meal. After dinner I asked Oscar how he enjoyed his dinner. He said he enjoyed it very much. “How was

the coffee?" I pressed on. My question was followed by an uncomfortably long silence, during which his face became red. He didn't want to tell a lie and he didn't want to offend Edith. Suddenly, his eyes lit up and he said, "It was very good American coffee." When I asked him what he meant he said, "Down in Brazil when we make coffee, we put a spoon in and the spoon stands." I only realized what he meant when many years later, on my first visit to Brazil, my hosts filled up a small cup half with sugar and topped it off with a murderously strong extract of coffee. Indeed, if one put his small spoon in it, the spoon remained erect. I last met Oscar in 1964 at the Third Meeting of the World Federation of Societies of Anaesthesiologists. He was the treasurer of the Congress and seemed to be of good health. He would have never complained about his health anyhow. We had a happy reunion and reminisced about the "Good American coffee." A year or two later, I learned with great sorrow that Oscar, who never married, died of kidney failure in his early fifties.

I remember only two things about a Colombian resident. The first is that as soon as he arrived he bought, for a few dollars, a beat-up jalopy. On one occasion I had to rush out from the hospital on a brief errand and I asked him to take me and wait for me. No sooner did we start than I noticed with great alarm that the brakes on his car did not work. I asked him to stop, but he reassured me that everything was O.K. and controlled the speed of the brakeless car by throwing the steering wheel sharply to the right or the left. I still don't know how, but we got back to the hospital safely. He never had an automobile accident during his two years with us.

The second thing I remember was that one morning he appeared in the department in an extremely depressed mood. When I asked him what was wrong he told me with tears in his eyes, "A German submarine sank one of our destroyers." I tried to console him by reminding him that the allies had been losing dozens of warships and merchantmen daily. Whereupon,

unconsoled, he answered, “But you don’t realize, it was half of our navy.”

Teaching twice a week in Dr. Wyman Richardson’s hematology course in Brookline made the purchase of a car a necessity. It also became handy, when I could get away for an hour or two, to go home to see Edith and our first child, Eva. As I already mentioned, I purchased our first American car, a 1937 Ford, from our lab technician, Ann Murphy. She lived with her unmarried sister who was a general practitioner in Milton, Massachusetts. Her sister had a car and they thought that, under the wartime conditions, it would have been unpatriotic to keep two cars when so many people badly needed means of transportation. I paid \$150 for the car and used it until 1946 when I purchased a new car. The car was kept in top condition by a patriot, Mr. Hauck, who was the town mechanic of Lexington, Massachusetts. The wonderful dinners that Mrs. Hauck gave us whenever I took the car for servicing was an extra bonus. My new car was a Mercury, purchased for \$1050. When a friend of a friend in New York heard that there was a car for sale in Boston, he called me on the phone and begged me not to sell it to anyone before he had a chance to see it. He arrived the next day, took the car for a spin, and offered me \$550 for it. Buying and selling this car was undoubtedly the best business deal I ever made. I have been trying to duplicate it ever since. I have to admit that the then-prevailing circumstances contributed much more to this fabulous transaction than my business acumen. One must remember that cars were still rationed in 1946, and there was a thriving black market in both used and new cars. I recall seeing an advertisement in the newspaper offering “Old used cars and new used cars” for sale.

I enjoyed teaching in Dr. Richardson’s course very much. He was a wonderful hematologist who could diagnose the patient’s ailments by just looking at a slide of stained blood under the microscope. He was also a typical Boston Brahmin. He was always dressed the same way: tweed jacket with rubber

patches at the elbows, flannel pants, and thick, brown rubber-soled shoes. He had to wear that kind of shoes because, as I learned later when he died in his early sixties, he suffered a severe spine injury in World War I and had constant severe pain. But he never talked about this. He was an ardent naturalist and wrote a beautiful book about his favorite haunt, the Quonset Marshes, where he had a summer home. At the end of each course, Dr. and Mrs. Richardson invited the entire teaching staff and their wives for a buffet dinner at their house. The first time we were invited was in late 1942. By that time, we had already received the large wooden crate with our personal belongings, including Edith's dresses, shipped through Switzerland. Edith wanted to make a good impression and selected a conservative, but elegant, velvet dress for the occasion. When we arrived and saw the other ladies, including the hostess, dressed in blouses, sweaters, and skirts, we realized that we had made an embarrassing mistake. In 1942, America had not yet recovered completely from the Great Depression. Most of the young, bright teaching assistants received no financial help from their families and had to exist on their meager salaries. They could not afford the type of clothing worn by upper middle-class Hungarians before World War II. When a few months later Mrs. Richardson called Edith with another invitation she asked her, with some embarrassment, to dress more simply in order not to hurt the feelings of the other ladies. But by that time we had learned a lot about how to be an American.

I vividly remember an episode that occurred shortly after I started to work in Dr. Beecher's lab. Professor Weiss had twin brothers of Hungarian background working in his department. Probably on Dr. Weiss's instigation, we were invited to one of the twin's home for dinner. I made an interesting finding in the lab that day and was very enthusiastic about it. I couldn't help but start to talk about it after the meal was over. This would have been normal among friends in Hungary, but not in Boston. The hitherto friendly attitude of the twins changed immediately

and I could hardly wait for the opportunity to leave. They refused our return invitation for dinner and I never heard from either of them again. But as I said, we had a lot to learn — including that business was not discussed at a Brahmin's dinner party — sometimes painfully, before we became Americanized and could fit better into the landscape.

Our social life in Boston gradually picked up. We made many friends among the recently immigrated Hungarian physicians, other Hungarians, co-workers from the lab, and later, when I started to work in the operating room, among the surgical residents. One of these was Rodolfo Herrera, the son of a former President of Guatemala. Fortunately for Rodolfo, in the late 1920s, his father was deposed in a bloodless coup and was sent as an Ambassador to Switzerland. Young Rodolfo went to the best private schools and, in addition to his native Spanish, learned to speak German, French, and English fluently. At age 18 he entered the Massachusetts Institute of Technology in Boston as a premedical student. He graduated with honors from Harvard Medical School and became first an intern, then a surgical resident at the Massachusetts General Hospital. This was followed by a fellowship in thoracic surgery. He stayed on at the Massachusetts General Hospital long after I left and completed residencies in several additional surgical specialties. We became good friends and used to go skiing together. In the mid-fifties, he returned to Guatemala, became Professor of Surgery at the National University and built a private hospital for surgical patients. He married a French anesthetist. On one of my visits to Central America I was a guest at their home.

Rodolfo was not very handsome, but he was a very charming ladies man. Therefore, I was not too surprised when, a few months after my visit to Guatemala, I received a letter from his wife asking if she could come for a few weeks to do postgraduate work at the Mercy Hospital in Pittsburgh where I was working at the time. She stayed at our home and confided to Edith

that she had marital difficulties. She never went back to Guatemala. She returned to France and later she divorced Rodolfo.

Professor Carroll Williams of “growth-hormone fame” also worked in Dr. Beecher’s lab for a short time. Dr. Williams had a Ph.D. in biology from Harvard and was a proud recipient of a Lowell Fellowship. This coveted fellowship financed the living expenses and all other expenses related to the fellow’s research. Because of the wartime conditions, Carroll’s choices were limited and I talked him into using his fellowship to complete medical school. At the accelerated wartime schedule, he could do that in three years. After much hesitation, he succumbed to my entreaties and enrolled in the Harvard Medical School. He didn’t have much enthusiasm for the practice of medicine and after graduating went straight back to teach biology at Harvard College. Whenever we met later, he always reproached me that I made him waste three years of his life.

Carroll was a favorite of the resident sage of Harvard, the famous mathematician and philosopher, Alfred North Whitehead. Professor Whitehead, who was by then in his eighties, used to have open-house on Friday evenings. Carroll was a regular at these soirées and took me along several times. I remember sitting awestruck at the feel of the great man, listening to erudite conversation, most of which I couldn’t quite follow.

Carroll was a puritanical young man who disdained money and material comfort. I remember when in December, 1946, he visited Edith at the Boston Lying-in-Hospital after the birth of our second daughter, Judy. At this time I already knew that I would have to leave the Massachusetts General Hospital, for reasons that I will relate later. When I confided in him, he asked why I wanted to leave. I told him that one of the reasons was that with the impending arrival of Edith’s parents, we would need more money. Whereupon, he asked me how much I earned now and when I told him my salary was \$6,000, he exclaimed, “But why would anybody want more money? More money only means more worry.” I wonder if later in life, when he became

world famous for his work with insect growth-hormone, he ever changed his views.

While I was continuing my training in anesthesiology, the war rolled on and I heard that there was a crying need for trained anesthesiologists in the field hospitals. After I completed my first year of training, I felt that I would be competent to function as an anesthetist in the army or navy. I had a bad conscience about staying at home and decided to see Dr. Nathaniel Faxon, the Director of the Massachusetts General Hospital, and tell him that I intended to volunteer to become a member of the armed forces. He vigorously argued against my plan. He said that the civilian population is perhaps in greater need of anesthesiologists than the armed forces, which already had the most and best of what we had. He also told me that since I was not yet a citizen of the United States it might take a year or more before I could get a commission and work as an anesthetist. In the meanwhile, I could be on kitchen duty peeling potatoes. I was unconvinced and went to the Cambridge branch of the Selective Service Board to volunteer. I was politely but firmly turned away. I suspect that Dr. Faxon's intervention had something to do with this.

A few weeks later, Dr. Faxon summoned me to his office and told me that my residency appointment would be terminated as of December 31, 1943. I asked him if unknowingly I had done something terribly wrong. His answer was to the contrary, and I was told that the surgical staff has great confidence in me. Because the shortage of anesthesia staff I would be appointed as of January 1, 1944, Assistant Anesthetist at the Massachusetts General Hospital with a starting salary of \$4,500 per annum and a yearly increase of \$500 to a maximum of \$6,000.

I was naturally delighted but at the same time I was concerned about how an incomplete residency, nine months short of the then required two years, would affect my chances to get permission to take the examination of the American Board of Anesthesiology. I wrote to Dr. Paul M. Wood, Secretary of the American Board of Anesthesiology. He answered promptly and

instructed me to telephone him for an interview. When I called him, he said that he would see me next Wednesday at 5 o'clock at the Flower and Fifth Avenue Hospital. I thanked him and was about to hang up when he said, "I mean at 5:00 a.m." When I got to the hospital at 4:45 a.m. and inquired about Dr. Wood, I was directed to a corridor running alongside the operating rooms. An orderly informed Dr. Wood that I had arrived and he came out shortly. He was an imposing figure, tall and corpulent. He removed his face mask and lighted an enormous cigar. He told me to get to the point quickly because he had to get back to the operating room where he had been anesthetizing, simultaneously, two unintubated patients with cyclopropane. While he was talking to me, he kept looking into the operating room through a glass panel. After listening to my story he dismissed me. A few days later I received a letter informing me that after 18 months more practice I would be admitted to the written examination of the American Board of Anesthesiology (ABA). I passed the written examination in the spring of 1945 and in October 1946, four years after I started in anesthesia, I passed the oral examination of the ABA. The board exam was given in conjunction with the Ether Centennial, commemorating the first public administration of ether anesthesia. The only thing I remember about the exam is that one of my examiners was Professor Robert Dripps, a young man exactly my age.

Thanks to the support of Dr. Arrowood and the skillful and devoted help of Ann Murphy, despite my hectic clinical schedule between 1941 and 1947, I published 14 papers on a variety of topics.

In 1944 we felt strong enough financially to start looking for a house with a little garden that would be more suitable for bringing up children than the bleak little townhouse we had been living in. We found a solidly built brick house in Winchester, Massachusetts. It had a nice garden and was not too far from the hospital. The price of the house was \$8,500 and required \$1,000 downpayment, which we could afford. Downstairs it had a liv-

ing room, dining room, closed-in sun room, kitchen, and a half bath; upstairs were three bedrooms and a bath. Almost the whole downstairs had solid oak paneling. It had a detached garage. The only problem was the coal burning furnace which was difficult to keep going when I was on night call. Soon, however, claiming hardship, we received permission to convert to oil.

The moving from Cambridge to Winchester turned out to be quite traumatic to our little Eva, who was about two years old at the time. She was and still is a conservative creature of habit who abhors change. She felt very insecure in her new surroundings for several weeks and only relaxed when in the spring she could play in the garden with her new friends.

3. ON TO PITTSBURGH AND MERCY HOSPITAL

After the end of World War II, Dr. Beecher returned and was soon joined by a number of young doctors recently discharged from the army. These young men usually had completed a short course in anesthesiology and then served as anesthesiologists in field hospitals. Now they were intent on obtaining formal residency training and specializing in anesthesiology. My work load in the operating rooms became lighter and I was on night call less frequently. I could spend more time in the lab and spent a few hours almost every day in translating, at Dr. Beecher's request, the monographs of H.H. Mayer and X.Y. Mayer on the theories of anesthesia from German into English. Unfortunately, I failed to ask the typist for a duplicate copy. After Dr. Beecher's death in 1968, I tried to locate the translations but had no success.

Shortly after the German surrender, I anesthetized a patient of Professor Meigs. When I visited her postoperatively we started to talk and, when she found out that I was an ethnic Hungarian, she told me that her son, an army captain, was a member of the American Military Mission in Budapest. She volunteered to ask her son to contact our families and let us know what had happened to them during those terrible times. The first letter gave us the terrible news. My family was especially hard hit. My father died of a heart attack in 1943. My mother, sister, and one brother, Béla, and the first and second wife and two sons of my brother, Imre, survived. However, my other three brothers (Miklós, Imre, and László) and László's wife died in concentration camps or were murdered by Hungarian Nazis. The wife of my brother, Miklós, contracted tuberculosis and died in 1948.

My wife's family was luckier. All her immediate family survived. However, all the survivors were destitute, bombed out, and starving. For reasons I can't recall, we could not send them money and, as I learned later, money would have been of no use

in Budapest during the first few months after the end of the war because there was nothing to buy. But we were able to send 1 kg airmail packages through the Military Mission. People in Hungary were starved for cigarettes and chocolates. These items could be bartered for food with the peasants. Edith and I spent countless hours making up these packages, sometimes 15 to 20 a week. The postage was more than the cost of the contents of the packages (a carton of cigarettes in New Jersey was \$1), but they arrived and helped to ease the survival of our families.

The situation improved gradually and by the beginning of 1946 it became possible to transport freight between Hungary and the United States if one could pay in dollars. Edith's mother lost no time and forwarded all our personal belongings, such as china, glassware, silver, and even a few selected pieces of antique furniture that we had left behind in 1941. It was again a near miracle that while our families lost almost all of their personal belongings, partly because of bomb damage to their apartments and partly by looting first by the retreating Germans and then by the conquering Russians, our personal assets survived intact. When we left in 1941 our belongings were stored under an inner staircase in the villa of Edith's Uncle Géza, on the outskirts of Budapest, where the whole extended Ribary family used to spend July and August of each year. After Géza died of a heart attack in 1942, the villa was requisitioned and a German diplomat moved in. During the siege of Budapest in 1945, the villa was bombed and the access to the space where our belongings were stored was obliterated by debris. Subsequently, the villa was looted twice but our belongings, which were undamaged, were not discovered. It was a wonderful feeling to have our cherished possessions once more with us.

In the spring of 1947 Edith and I became American citizens. At about that time I started to feel that my career was in a rut. I received no promotion or increase of salary after I reached the \$6,000 per annum maximum stipulated in my 1943 contract and my academic rank at the Medical School was Assistant. I was

being used more and more to start anesthesia on Dr. Beecher's private patients in the Phillips House. His secretary routinely booked him for overlapping cases and on these occasions he used to ask me either to finish his earlier case or to start the next one. I invariably selected the second alternative. I felt that, now that there was plenty of clinical help, I should be entitled to more time to work in the laboratory, have more freedom in selecting the types of anesthetic agents (e.g. muscle relaxants), have a salary increase and a promotion in academic rank.

I asked for an appointment with Dr. Beecher and put my case forward as respectfully as possible. Much to my surprise he became very angry and told me that I was ungrateful for all that he did for me when I was a green immigrant without any prospects. I told him that I would always be grateful to him for giving me a place in his department, but that perhaps I had repaid some of his kindness by my industry and devotion during the war years. I also asked his permission to look for another position more suitable for my needs and goals and asked for his help to secure such a position.

I would like to keep the record straight and state without any hesitation that I consider Dr. Beecher one of the intellectual giants in our discipline of the mid-twentieth century. His seminal contributions to medical ethics, and by the discovery of the placebo effect, to clinical pharmacology are milestones in the development of medicine. His contributions to the management of the seriously injured patients, based on his personal experience on the battlefield, saved countless lives in the violent political upheavals of the second half of the twentieth century and have been applied in the treatment of accident victims. Dr. Beecher was an unexcelled practitioner of medical prose. His publications are masterpieces, concise, logically constructed, and easily understood, even for the nonexpert. In a rare judgmental error concerning muscle relaxants, and because of his enormous prestige among anesthesiologists and surgeons, he undoubtedly impeded the more rapid clinical use of muscle relaxants and,

thereby, the development of balanced anesthesia. Later, Dr. Beecher did recognize the important contributions of muscle relaxants to the development of anesthesiology and frequently used them in his own practice. I'm happy to be able to say that after some years, when we frequently met at international meetings, the always correct, but somewhat strained, relationship between Dr. Beecher and me improved. I'm proud that in his later years, as I was told, he frequently referred to me as "One of his most gifted disciples."

In late 1946 and early 1947 I had many interviews for various academic positions. Although by nature I always have been a pessimist, I always came away with the feeling that I had made a good impression. However, after a few weeks, I invariably received a negative response. I became despondent of ever finding a job and confided my problems to one of the senior surgeons at the Massachusetts General Hospital. He listened to me carefully, thought in silence for a few minutes, and then said, "I know that you have to give Dr. Beecher as your primary reference, but I suggest that your prospective employer should also ask for a reference from me."

In the meanwhile, Dr. Julia Arrowood, my mentor and by that time close friend, became Professor of Anesthesiology at the Boston University Medical School. She accompanied Dr. Reginald Smithwick of "thoraco-lumbar sympathectomy" fame, who became Professor of Surgery at the same institution. At that time, thoraco-lumbar sympathectomy was considered the best treatment for essential hypertension. So when a former Chairman of the Democratic Party (who became Postmaster General in the Truman Administration) developed severe hypertension, he was sent to Dr. Smithwick for thoraco-lumbar sympathectomy. President Truman sent his personal physician, Brigadier General Wallace D. Graham, to be present at the operation. Everything went well and after the end of the operation General Graham complimented Dr. Arrowood on the competent conduct of anesthesia and told her, "If you would know of

an anesthesiologist anywhere as good as you, there would be a good job waiting for him in Pittsburgh.” Dr. Arrowood, as I learned later, very generously told him, “I know of someone, who is available and who is better than I am.” General Graham met with me the same afternoon and after a short interview called Mr. May, who was the President of the Board of Trustees of Mercy Hospital in Pittsburgh, Pennsylvania.

That same evening I received a telephone call from Dr. E.J. McCague, who was Chairman of the Department of Urology at Mercy and Professor of Urology of the University of Pittsburgh Medical School. He told me that Mercy Hospital, a 700 bed institution with 10,000 to 12,000 surgical procedures per year, had been without a trained anesthesiologist for several months. Their anesthesiologist, Dr. E.J. Remlinger, who for many years was the Secretary of the American Society of Anesthesiology, left abruptly because of some disagreement. There was turmoil in the operating room. He flew to Boston the next day to interview me. He arrived about midday and after a short discussion offered me the Chairmanship of the Anesthesia Department of Mercy Hospital in Pittsburgh. He told me that as a formality, he had to have some references about me from Dr. Beecher and some of the surgeons. Later, after we became close friends, Dr. McCague told me the story of the two interviews. It happened that Dr. Beecher could not see him until later in the day and the first surgeon he talked to was the one to whom I was confiding my difficulties. As Dr. McCague told me later, before he could ask any questions about my professional ability, my surgeon friend asked him, “Are you interested in an anesthesiologist who is primarily a clinician or in one who is primarily a researcher?” Dr. McCague told him that their urgent need was for a good clinician with the organizing ability to build a solid department. In this case, my surgeon friend responded, “When Dr. Beecher asks you the same question I asked you, tell him that you are interested in a research-oriented anesthesiologist, suitable for heading an academic department.” Dr. McCague was taken

aback by this advice, but the surgeon refused to elaborate on his advice and asked him to keep it confidential. When later in the day Dr. McCague met Dr. Beecher, he told him that they were looking for an academically-oriented anesthesiologist. Whereupon Dr. Beecher praised me as an excellent, conscientious clinician who, in his opinion, was only a mediocre investigator.

Because of the urgency of their need, Dr. McCague asked me to accompany him to Pittsburgh the following day. By that time I owned a new Mercury, so I offered to drive him to Pittsburgh. We started early the next morning in a snowstorm. No sooner were we out of Boston than our car skidded into a snow bank. It took me half an hour to dig it out. From then on, we had no more problems and arrived late the same evening. The next morning I saw Sister Elizabeth, the Superintendent of the Hospital, and we quickly agreed on the terms of my employment. I was to receive a base salary of \$12,000 per annum plus 50 percent of the net income of the department. The hospital undertook to furnish a small laboratory adjacent to the operating rooms, provide a small office, as well as to underwrite the salary of a secretary and a laboratory technician. I was entitled to have four to eight residents and, later, as many staff members as deemed necessary for the smooth running of the department. We never signed a written contract.

The hospital wanted me to start immediately, but I knew that I would have problems with obtaining a license to practice medicine in Pennsylvania. I went to see the Pittsburgh member of the Pennsylvania State Board of Medical Examiners. He told me what I already knew. The Diploma of the National Board of Medical Examiners does not entitle graduates of foreign medical schools to automatic licensure in Pennsylvania. In addition to the written examination, which was the only requirement for a license for graduates of American medical schools, I would also have to take an oral and a practical examination. He informed me that the next examination would be in July and I could expect the results in September. When I told all this to Dr.

McCague, he exploded, “Nonsense! I operated on the Governor of Pennsylvania a few weeks ago. I will call him on the phone and will get you a temporary license.” He did, but the Governor told him that if he forced the Board to give me a temporary license, I might have considerable difficulty in ever getting a permanent one. There was nothing to do for Mercy Hospital but wait. In the meanwhile they had to get along with the help of an army major, stationed in a nearby military hospital, who could help them for a few hours twice a week. Unfortunately, between March and September there were several, in my opinion, avoidable, anesthesia-related deaths in the operating rooms. To me it seemed inhumane to refuse a temporary license to someone who was a Diplomate of the National Board of Medical Examiners, was licensed to practice medicine in Massachusetts and New York, was a Diplomate of the American Board of Anesthesiology, and who had been on the Staff of the Massachusetts General Hospital, one of the premier medical institutions in the United States, and thereby endanger the life and well-being of numerous patients. I had many more encounters with the same gentleman whom I had to petition personally whenever a graduate of a foreign medical school wanted to come for anesthesia training to Mercy Hospital. At first these meetings were anything but pleasant. Later, however, after I earned some national reputation, they became more cordial. A few years before leaving Pittsburgh, first his wife and then he himself had to undergo complicated surgical procedures. On both occasions, I was requested to come to the hospital where they were to be operated on and assume the anesthetic management.

Being unable to do anything to help the anesthesia problems of Mercy hospital, I went back to Boston and continued my work until June 30, 1947 at the Massachusetts General Hospital. In the meanwhile, Edith’s parents obtained immigration visas and arrived in the United States. We were overjoyed. My mother, who was also eligible for an immigration visa was 74 years old at the time and wanted to stay with my sister and to the

last minute of her life, prayed and waited for the return of her three martyred sons.

In July I returned to Pittsburgh to take the licensing examination. The written part was uneventful. During the oral examination, for the second time in my life, I was faced by a man with a “little black book.” The man to interrogate me first, after leafing through his little book, asked me to talk about infectious mononucleosis. I started to talk about this topic, which was very familiar to me and decided to continue until I was stopped. I knew I was talking way above his head and saw that the other examiners, sitting in a semicircle behind him, started to snicker audibly while my examiner’s face became redder and redder. He finally stopped me and asked, “What do you intend to do if you get your license?” I responded, “I will be Chairman of the Anesthesia Department at Mercy Hospital in Pittsburgh.” Whereupon he rejoined, “Do you think an anesthesiologist has to know all that about mononucleosis?” I responded, “I don’t, sir, but it seems you do.” That was the end of the oral examination. I was dismissed without any more questioning. The practical examination was a meaningless formality. After the exam, however, I was warned that if they found out that I went to the operating rooms or gave any advice on the anesthetic management of any patient before I received the results of my examination, I would never be licensed in Pennsylvania.

I went on the payroll of Mercy Hospital on July 1, 1947 and had to decide what to do with the approximately ten weeks until I hopefully got my license. I felt that I could best use my time by visiting some of the outstanding anesthesia departments in the Northeast and Midwest. Except for subarachnoid block (spinal anesthesia) and brachial plexus block, I was inexperienced in regional anesthetic techniques and wanted to learn more about them. The first man I visited was Dr. Lloyd Mousel who at that time was working in Washington, DC. He very kindly demonstrated to me the techniques of cervical plexus and stellate ganglion blocks. On my way north, I stopped at the Pennsylvania

General Hospital for a visit with Professor Robert R. Dripps. I told him about the need for additional medical anesthetists or residents if and when I took over the Anesthesia Department at Mercy Hospital and asked for his help. I then visited Dr. Virginia Apgar at the Presbyterian Hospital of the College of Physicians and Surgeons of Columbia University in New York. At that time she was working on the famous “Apgar Score” for the evaluation of the condition of newborn babies. She was a close friend of my mentor, Dr. Julia Arrowood, and was very hospitable. From New York I headed to Montreal for a visit with Dr. Harold R. Griffith to observe the use of curare by the master himself. This was the start of a long friendship, cemented by our mutual interest in muscle relaxants, the improvement of the standing of Anesthesiology in the hierarchy of medical specialties, the availability of safe anesthesia all over the world, and the World Federation of Societies of Anesthesiologists (WFSA). He was the founder and first President of this organization. I was proud to be invited by Professor Bevan to give the first Harold R. Griffith Memorial Lecture at McGill University in 1985.

In Montreal I also visited Professor Wesley Bourne at McGill University and admired his virtuosity in administering high spinal anesthesia for thoracoplasties. From Montreal I headed toward the Mayo Clinic to visit Dr. Lundy, one of the fathers of balanced anesthesia and a master, in the tradition of the great French surgeon Labat, of regional anesthesia. He showed me the techniques of trans-sacral and sacral nerve blocks. I also observed the use of pentothal by Dr. Adams, who had recently published a monograph on this subject. But the most satisfying experience of my visit to the Mayo Clinic was meeting Dr. Albert Faulkner, a rising star in the firmament of anesthesia. He was exactly my age with revolutionary ideas on the effect of anesthesia on the electroencephalogram. He developed the first servocontrolled administration of anesthesia regulated by changes in the pattern of the electroencephalogram. He was a

mild mannered, soft-spoken man with a wry sense of humor. We became close friends and I visited him often when he became the head of the Anesthesia Department at the Mayo Clinic. He lived out of town and had a large apple orchard. One spring when I was visiting him he asked me to help him spray his apple trees. He made me drive the tractor which had a large drum of insecticide on it. He walked behind the tractor holding a spray attached by a hose to the drum of insecticides and sprayed to the left and right as the tractor moved slowly along. After a while, I realized that I got almost as much of the spray as the trees. I stopped the tractor and suggested that he might be tired and we should change places. He immediately got the point and could not stop laughing. After he became Chief of Mayo's Anesthesia Department, he almost completely stopped his research. He retired early and for some years devoted his talent to playing the stock market. I heard that he did this very successfully. Unfortunately, he died at a relatively early age of Alzheimer's disease.

Finally, September came and the Sisters of Mercy asked me to wait for the results of the licensing examination in Pittsburgh so that I would be available at once to assume my duties in the operating rooms. In order to save the few extra days taken by the mail, Dr. McCague made arrangements to be informed by phone if and when I got my license. The telephone call came late one morning and after lunch I was in the operating rooms.

The next morning I had a pleasant surprise. Dr. Dripps sent me a resident who had worked for several years as an anesthesiologist in the army, had a Pennsylvania license and needed one more year of supervised training to be eligible for the examination of the American Board of Anesthesiology. We agreed that his compensation would be board and lodging and a yearly stipend of \$2400. He started to work the next morning and I was happy to see that he was competent, meticulous, and fast. About two or three days later he asked to be excused for two days because his mother in eastern Pennsylvania was ailing. When he came back he told me that the Pittsburgh air was very bad for

his sinuses and he would like to leave. I quickly sized up the situation and asked, "How much?" He responded, "\$6,000." I told him that I would discuss it with the Superintendent of the hospital and would give him an answer in a few hours. Sister Elizabeth graciously agreed to his exorbitant demand. Dr. X became the highest paid anesthesia resident of his time. His work continued to be of the highest quality and he earned every penny of his high stipend. In the course of the year, he married a lovely Pittsburgh girl and in August of 1948 he asked me if he could stay on the anesthesia staff at Mercy after he had completed his residency. I told him that I would be very happy to have him. When he inquired about his starting salary, I said it would be \$6,000 per annum. He got very angry and said that he was paid as much as a resident. "Yes," I said, "but under what circumstances?" He told me that he would appeal to the Superintendent and stormed out of my office. I called Sister Elizabeth, explained the situation and she supported my stand. Whereupon Dr. X announced that he would leave at the end of his residency. As it turned out, I did a big favor to Dr. X. He went to a large mid-western city where he became the Chief of the Anesthesia Departments of two hospitals in which all anesthetics were administered by nurse anesthetists. He became very wealthy. After my retirement in 1976 I started to spend the winter months in Florida, and encountered Dr. X, who was in semi-retirement there. We let bygones be bygones and we became good friends and met occasionally to reminisce about the past and play bridge.

In July, 1948, four of the Mercy interns had started their anesthesia residency at Mercy and it became much easier to cover the anesthetic requirements of the 14 operating rooms and two delivery rooms. My life became immeasurably easier when, early in 1948, Miss Martha Petraitis joined the department and assumed the responsibility for the running of the School of Nurse Anesthetists at Mercy. Miss Petraitis was a Lieutenant Colonel in the Army Reserves and a trained nurse anesthetist. Her capability for work was unlimited. Not only did she take on the di-

rection of the School for Nurse Anesthetists, but she also assumed responsibility for ordering supplies and for the maintenance of equipment. She was first to come and last to leave every day and maintained discipline, not by coercion but by example. She certainly made my 15 years at Mercy much easier and more pleasant.

Until my family joined me two months later, I stayed in one of the private rooms of the hospital. Mercy was located less than a mile away from a large plant of Bethlehem Steel and the quality of the air was terrible. The window sills and the bathtub were covered by a thin layer of soot. I was very worried about the effect of the Pittsburgh air on the health of my family and was much relieved when I discovered that the quality of air was considerably better in the southern suburbs, far away from large industrial plants.

As I already mentioned, in late 1947 and the first half of 1948, except for one resident and myself the anesthesia staff consisted of nurse anesthetists, most of whom were in early stages of training. To cope with the situation, whenever possible, we used regional anesthesia, had the nurses check the vital signs, and the resident and I circulated continuously checking on the condition of the patients and intervening when necessary. It wasn't ideal anesthetic management, but it was the best we could supply under the circumstances.

After about six weeks at Mercy, I started to hear rumors that one of the older surgeons was complaining that all of his patients operated on for the correction of inguinal hernia (13 in all) developed atelectasis postoperatively. I felt that I had to do something about this and reviewed the charts of all the six, not 13, hernia patients this surgeon had operated on since I came to Mercy. I found no signs or symptoms attributed to atelectasis in any of the charts. I asked Dr. Buchanan, the Chief of the Surgical Staff, to arrange for me to address the Surgical Staff on a personal matter. He reluctantly agreed. I appeared at the meeting, carrying in a briefcase the six charts of the hernia patients

of Dr. X. I went straight to the attack and said, “I understand Dr. X that all of your hernia patients operated on, under spinal anesthesia, developed postoperative atelectasis and that you had 13 such patients. Since I came here, you performed six hernia operations. Therefore, it would be possible to account for 12 cases of atelectasis, provided that all six patients had bilateral atelectasis, but it would be difficult to account for the 13th case. I have the records of the six hernia patients here and in none of them is there any sign or symptom described that would indicate that they had atelectasis.” Dr. X replied that he was an experienced surgeon and he didn’t need these newfangled tests to diagnose atelectasis. I then turned to the assembled staff and said, “As far as I know, I am the first Jewish staff member of Mercy Hospital. If this is an insurmountable obstacle to my leading an independent anesthesia department, please let me know. My family is still in Boston and I am confident that I would be welcomed back at the Massachusetts General Hospital. I will now leave the room. Discuss the matter and let me know your decision.” In less than five minutes, Dr. Buchanan came out of the meeting, told me that I had the confidence of the surgical staff, and asked me to stay. I am proud to say that in the years following, I developed a friendly relationship, built on mutual respect with the surgical staff, and our families frequently visited each other on various social occasions. I will always remember that once, when invited to the McCague’s, in the middle of the dinner a gypsy band walked in playing Hungarian folksongs.

We managed to sell our house in Winchester without any difficulty and I found a suitable house in Mt. Lebanon that cost just as much as we received for our home in Winchester. When it came time to move, I realized that we did not have enough money to cover all the expenses. Supporting our surviving family members after the liberation of Budapest exhausted our reserves. We were reluctant to sell any of my mother-in-law’s jewelry and, for the first and last time in my life, I had to borrow money. Our closest friends in Boston were Tekla and Imre Huvos,

a childless couple. He was an executive of a leather company, quite well off, and happy to help out. Edith, our oldest daughter, Eva, my father-in-law, and I went by car and my mother-in-law and our second daughter, Judy, followed by plane. My mother-in-law, who was a remarkable woman in every aspect, very quickly adjusted to life in America. Although, except for philanthropic activities, she had never done any work outside the home, within a few months after our arrival in Pittsburgh she returned to Boston to learn from a friend how to make custom jewelry. As in everything else, she had exquisite taste and had no trouble selling her products to various department stores in Pittsburgh and New York. When a year or two later she visited her son in New Zealand, she took the needs of her art with her and was so successful that we had to air mail more supplies to her. Not too long after we arrived in Pittsburgh, she moved with her husband to a little apartment near to our home and, with a little help, was able to support herself.

My mother-in-law lived to be 81 years of age. She accompanied us to New York in 1962 and again lived close to us in Briarcliff Manor in a pleasant garden apartment. It became a ritual that every Saturday I went alone to her house for lunch. According to Edith, the main purpose of these lunches was to complain to each other about her.

By the end of June, 1948, the department was running smoothly and profitably. When Sister Syphus who at that time was in her late sixties or early seventies and who with the help of one girl did all purchasing, billing, collecting and accounting, showed Sister Innocent and me the accounts of the department, it turned out that my share of the net profit was over \$100,000. I was taken aback by this astronomical sum and suggested that my share from the income of the department should be limited to \$40,000 per annum. In return, I was authorized to engage any number of trained assistants deemed necessary for the running of the department. Later, when I became increasingly involved in lecturing in the United States and abroad, I

was allowed to take all the time required to fulfill my commitments.

Although I did not realize it at the time, a very important influence came to bear on my life in 1952. In June of that year I was invited to lecture on succinylcholine at the Annual Meeting of the Canadian Society of Anaesthesiologists. Just before leaving for the meeting in Banff, I received a residency application from Dr. E.S. (Rick) Siker. Rick, before the outbreak of the Korean War, had not completed his formal training in Anesthesiology with Dr. Harold Bishop at the Westchester County Hospital in Valhalla, New York. When the Korean War broke out he was recalled to active duty by the Navy and assigned for duty as an anesthesiologist to an Army Field Hospital in Korea. After completing his tour of duty in Korea, he was assigned to the Bremerton Naval Hospital across Puget Sound from Seattle, Washington, and was scheduled for discharge in November of 1952. I telephoned him and suggested that, since I would be in the “vicinity,” he should come to Banff for an interview. He arrived at the appointed time with his beautiful wife, Eileen, in tow. As I remember, at our first meeting Eileen made a greater impression on me than Rick! After a brief interview I offered Rick a residency and suggested that we should make the most of the beautiful weather and scenery and drive over to Lake Louise for some “relaxation.” At Lake Louise we rented a canoe and started to chase a gaggle of geese, which I was eager to photograph. Since I was occupied with photography in the bow of the canoe, Rick did the paddling. At the far end of the lake we climbed part-way up a hill still covered with snow to get a better view and, incidentally, a better shot. After rowing back, I invited the Sikers for a swim in the hotel’s pool and dinner and dancing. We didn’t play tennis between swimming and dinner since the Sikers had no racquets. I learned later that when Eileen collapsed on her bed in the Banff Springs Hotel, she exclaimed, “Rick, if you work for this man you will be dead in one year.”

Rick, however, decided to take a chance. This chance brought ample dividends to all concerned.

Rick was an extremely bright young man to whom everything in life came easily without too much hard work. It took me some time to convince him that it is not enough to be bright and that hard work and resolve are also necessary to get ahead in life. After a while he got the point and from then on nothing could stop his ascending career. Although he was junior to some of the other staff members by four to five years, by 1956 he became the unchallenged second in command of the department. After a few years he assumed much of my managerial duties and as our staff grew, under his leadership, we took over the anesthesia services in several hospitals in the Pittsburgh area. In contrast to me, he excelled in delegating responsibility and had the talent to get people to work together. Even I could not predict the success he was to enjoy in both his scientific and political career in our specialty.

4. RESIDENCY PROGRAM CONTRASTS WITH EUROPE

As any residency program director knows, there can be a bond of friendship with those in training, and tragedy that befalls them affects one as though it happened to a member of one's own family. A talented, amiable young Chilean anesthetist, Dr. Mario Torres-Kay, who had a wife and six young children died in the most terrible anesthesia accident that ever occurred. I have always been prejudiced against cyclopropane so Dr. Torres-Kay almost never had the opportunity to use it while he was with us in Pittsburgh. However, Mario had used it frequently earlier in his private practice. It seems that well-to-do patients in Chile demanded cyclopropane when they had general anesthesia. Cyclopropane, however, was very expensive. To save money, it was purchased in large cylinders and an orderly filled a smaller tank suitable for attachment to the anesthesia machine. Unfortunately, however, there was no strictly enforced difference in the color of the oxygen and cyclopropane tanks or in the coupling of these tanks to the anesthesia machines. On that day the orderly made a terrible mistake and filled a tank which still had some oxygen in it with cyclopropane. Dr. Torres-Kay was anesthetizing a patient in a large operating room where two surgical teams were working side-by-side. When he turned on the cyclopropane valve, the cyclopropane-oxygen mixture exploded with a deadly force, killing Dr. Torres-Kay and his patient and six other people in the room. Several others were seriously injured.

Now to happier events. The first of these was the arrival of our first British fellow, Dr. Mark Swerdlow, of Manchester. It was probably Professor Andrew Hunter of the University of Manchester Medical School who suggested that he apply for a fellowship with us. Mark was the son of Russian immigrants, very bright and eager to learn. He was interested in the management of chronic pain and its treatment with regional anesthetic techniques and drugs. He came to the right place, because at

this time the diagnosis and treatment of pain with nerve blocks and the pharmacology and clinical use of narcotic and non-narcotic analgesics were among my primary interests. We had no multidisciplinary pain clinic, recommended a few years later by Professor John J. Bonica, but we did more than 1,000 diagnostic and therapeutic nerve blocks each year and I functioned as an amateur “clinical psychologist.” Mark was a real “renaissance man” with other accomplishments besides anesthesiology. He played the viola beautifully in string quartets and was a master of pen drawing.

His stay with us had been the start of a close personal friendship. He and Rick Siker became co-authors with me of the first monograph on the use of “Narcotics and Narcotic Antagonists in Anesthesiology.” After returning to Manchester, he devoted more and more of his energy to the management of pain, organized one of the first multidisciplinary pain clinics in the United Kingdom, and edited several monographs on the management of chronic pain. I have been privileged to contribute a chapter on the “Use of Drugs for the Management of Chronic Pain” to some of his books.

Mark and his lovely wife, Ruth, an economist by training, have always been our cherished companions. We have traveled “en famille” all over the United Kingdom and many parts of Europe and have stayed in each other’s home on many occasions. Until age compelled me to cut back on my travels, we made a point of meeting at least once a year, either in the United States or in Europe. Their greatest joy and pride is that their son, an internationally renowned epidemiologist, is Professor of Epidemiology at the School of Public Health of the University of London.

In 1956, Professor William W. Mushin, the Chairman of the Anesthesia Department at the National University of Cardiff, Wales, and I decided to trade First Assistants for one year. Except for wives, the exchange was to be complete, involving sala-

ries, houses, and cars. Professor Mushin's first assistant, Dr. Leslie Rendell-Baker, was somewhat older than Rick and more established, having co-authored two monographs with Professor Mushin, one on mechanical ventilators and another on anesthesia for thoracic surgery. Leslie was the prototype of the "proper English gentleman." He was always immaculately groomed, arrived freshly shaven in the morning, and shaved again in the locker room before leaving. He was a very competent anesthesiologist but two greater interests were photography and cars. He was rather introverted but could become very eloquent when he talked about his car, an Austin A-90. His wife, Rosemary, was a beautiful blond, with blue eyes and a typical English "rose and peaches" complexion. She had an outgoing cheerful personality and made many friends. They had two beautiful young daughters.

Leslie seemingly did not have a very high opinion of the American way of life or of the practice of anesthesia in the United States. You could sense that he could hardly wait to get back to Wales. I was, therefore, surprised when, less than a year after going home, he was back in the United States working in the Anesthesia Department of the Cleveland Clinic. He eventually left Cleveland to accept the Chairmanship at New York's Mt. Sinai Hospital (at about the same time that I moved to New York). He retired from this position rather early and completed his illustrious career in California where he also became interested in the history of anesthesia and became a recognized authority in this field.

In contrast, Rick enjoyed every minute of his stay in Cardiff. He fell under the spell of Professor Mushin's penetrating intellect and recognized that there usually is more than one way to reach the same goal. He became a master in synthesizing the best of American and British anesthesia practice. He came back with a trichloroethylene vaporizer that was calibrated to deliver precise concentrations of the new (at that time) inhalational agent,

halothane. The machine and twelve bottles of halothane were his “going away” presents and he proceeded to administer the first one hundred halothane anesthetics in the United States. He remained a great admirer and friend of Professor Mushin who, even from afar, showed great interest in Rick’s professional career. As ASA President, Rick invited Bill Mushin to be the 1973 Rovenstine Lecturer.

In 1956, we decided to spend the summer vacation together with the Sikers in Scandinavia. We planned to meet in Bergen, Norway. Edith and I flew there from Pittsburgh and Eileen and Rick, together with the Austin A-90, arrived by ferry from Newcastle-on-Tyne. My trip did not begin auspiciously. In 1956, there were no direct flights to Bergen from the United States and we were scheduled to change planes in New York and then again in Prestwick, Scotland. I usually cannot sleep on a plane sitting up and, in order to try to get some sleep, I took some Nembutal after we left New York. There were two things wrong with this; I never had had any barbiturates before and I thought I took two 50 mg pills, but actually I had taken two 100 mg pills. I was dead to the world when we arrived in Prestwick, where we had to leave the plane. When Edith managed to wake me, I became nauseated. She managed to get me to a restroom where, while Edith was waiting outside, I became violently sick. A gentleman told Edith, “Your husband is very sick in there.” But she could do nothing until I tumbled out. With the help of a steward, they got me back on the plane, where I alternated being stuporous and vomiting.

At Bergen Airport, Eileen and Rick, with camera ready, were waiting to immortalize the triumphant arrival of the boss. Instead, a deathly pale man was half lifted out of the plane, oblivious to everything around him. They managed to get me to our hotel where I slept for more than 24 hours. When I woke up I was as good as new, but I didn’t even remember changing planes in Prestwick.

From Bergen we took a “leisurely” drive across Norway to Oslo in the famous Austin A-90. It was a middle-size convertible car. Everything was all right with it, except that instead of turning it jumped corners. We didn’t go straight west from Bergen to Oslo, but first went north and explored a few nearby fjords. The road often followed the ridges of mountains at 4,000 to 5,000 feet above sea level. At the latitude of Norway, however, we were above the tree line and it felt as if we were traveling at 10,000 to 12,000 feet up in the Alps. The roads in the mountains were often unpaved and narrow, with steep precipices on both sides. On one occasion, we met with a postbus coming from the other direction. There was no way to pass by. The driver got out and indicated (waving his arms) that we should back up to where he could pass us. We did not have the confidence to do this and I indicated, by covering my face with both hands and then pointing down the precipice on the two sides of the road, that not pride but fright kept us from backing up. Whereupon he got back on the bus and backed up at great speed. When he got to a place where we could get past him, he waved us on with a cheerful smile, visibly enjoying his superior driving abilities.

The same night we stayed at a hotel high up in the mountains in a little village called Lom. The hotel was a huge wooden structure, built in the middle of the 19th century and was a favorite vacation resort of the last German Emperor, Wilhelm II. (The hotel burned to the ground a year or two after we stayed there.) When we came down for breakfast the next morning, we saw a Norwegian newspaper on one of the tables with a photograph of the ill fated liner, the Andrea Doria, splashed across the title page of the paper. “Isn’t this the boat you are going back to the United States on?” asked Rick. “It used to be, but if her picture is on the first page of a Norwegian paper, it can only mean that she has entered the domain of Davey Jones.” My suspicion was confirmed by a kind Norwegian who summarized the fate of the Andrea Doria to us. I spent the next two hours and

a king's ransom on the telephone and finally obtained reservations on the U.S. Independence, scheduled to sail from Genoa about a week after our originally scheduled sailing date. Edith and I were supposed to end our Europe vacation at the summer home of Dr. Stefano Brena, a Torino anesthesiologist, on the Italian Riviera not far from Genoa. Not wishing to overstay our welcome, I telephoned Dr. Brena and asked him to make a reservation for us for the week before our scheduled sailing at a quiet, not too expensive place on the French Riviera.

We continued our trip to Oslo where we planned to spend a few days sightseeing. On the second day we went to an exhibition ground where Edith and Rick each ate a long chocolate layer cake covered with a mound of whipped cream. In a few hours, they both were violently sick. Fortunately, Edith got well in a day, but Rick was still very rocky when we left Oslo for the drive to Stockholm. He had nothing but unsweetened tea for 48 hours. We were informed that the drive would take 8 to 10 hours and, therefore, decided to leave at 6 a.m., and stop for breakfast an hour or so later when we crossed the Swedish border. Rick was resting peacefully on the back seat of the car and felt well enough to order two soft-boiled eggs. This we did, but the trouble was that nobody in the restaurant spoke English. They had an English menu, but the Norwegian names of the items were not indicated on it. Rick pointed out what he wanted, and the elderly waitress acknowledged it with a nice smile. Rick went out to the car to fetch a map and returned just when the waitress appeared, not with two boiled eggs but with two fried eggs, sunny side up, swimming in fat. Rick's face turned greenish-yellow and he made a hasty retreat from the restaurant.

After a few days sightseeing in Stockholm, we left the venerable Austin A-90 in a garage and flew to Helsinki where we had a few unforgettable days at the Scandinavian Congress and then parted from the Sikers. They flew back to Stockholm, picked up their car, and started for home via Denmark and northwest Germany. Edith and I made our way to the Volkswagen factory

in Wolfsburg, Germany, where I picked up a “Volkswagen Bug” to take a leisurely drive to the Brena’s on the Italian Riviera.¹

We found out that Dr. Brena had made a reservation for us and, after a few pleasant days at their house, we set out, over the Grand Cornicle, for Lap d’Antibes. I had a sense of foreboding as we approached the hotel. The circular driveway leading to the main entrance was lined with Bentleys, Rolls Royces, and a white convertible Cadillac with a California license plate. The doorman never had seen a Volkswagen before and had no idea that the “trunk” was in the front. After getting our luggage out, I had to park the car myself. When I registered, the room reserved for us would have cost \$70 a day, about \$800 to \$1,000 in today’s dollar. When I asked if they would have anything less expensive, the receptionist condescendingly gave us a \$40 room. It had the advantage that its windows overlooked the parking lot and I could watch my little Volkswagen snuggled among the Rolls Royces to my heart’s content.

At this point I will digress to a variety of topics which directly or indirectly had great influence on the course of my life. The topics that I will discuss include:

- Anesthesiology in the United States and worldwide after World War II;
- The opposing influences on the development of anesthesiology in the United States;
- The World Federation of the Societies of Anaesthesiologists;

1 In the 1950s, it was my routine to buy a new Volkswagen Beetle every summer in Germany, use it there for a few weeks, and ship it home. When it arrived, I sold the last year’s model for about the same price as the cost of the new car, the shipping charge, and the minimal duty. This way I had a new car every year at no cost. This wonderful arrangement lasted until my oldest daughter, Eva, became of driving age and found out that in the Volkswagen the gas tank is located in front of the driver. She alarmed Edith that I had been driving behind a time bomb for a decade, and that was the end of the Volkswagens for me and also the end of one of my very few successful business ventures.

- My research interests; and
- Ethics of clinical research before 1970.

*Anesthesiology in the United States and Abroad
After World War II*

The differences in the standards of anesthesiology in various developed and developing countries after World War II were enormous. In the United Kingdom and its dominions all anesthetics were administered by physicians. In the United States, the majority of anesthetics were administered by nurse anesthetists, sometimes supervised by trained anesthesiologists and sometimes by surgeons. In the United States there was a growing number of academically oriented anesthesia departments with structured residency training programs, including didactic lectures. Research was encouraged in these departments. In the United Kingdom training was less structured. It resembled more an apprenticeship than an American residency. There were few anesthesia research centers. In Europe there were a few anesthesiologists trained in the United Kingdom or the United States, in the Scandinavian states, Germany, France, Italy, and Austria. There were few Anesthesia departments and they were all dominated by the surgeons. In other European countries, the standards of anesthesiology were even worse. Anesthetics were administered by the most junior surgical assistants or, not infrequently, by an orderly. Inhalation anesthesia was open-drop ether or occasionally chloroform. There were only two signs of anesthesia. The first was that the patient stopped breathing and became blue. In this case the “anesthetist” removed the mask, pumped the patient’s chest, and hoped for the best. The second sign was that the patient attempted to climb off the table. He was forcefully restrained and the “anesthetist” was ordered to “pour it on.”

In the fall of 1948, when I first returned to Hungary to attend an International Medical Meeting organized to commemorate the centennial of the 1848 revolution of Hungary against

the Hapsbergs, I took along some Pentothal, demerol and d-tubocurarine, a laryngoscope, endotracheal tubes, oropharyngeal airways, and different size face masks. Until then all lung surgery was performed under local anesthesia. I was asked to give general anesthesia for an exploratory thoracotomy. To my consternation, I found out that there was no anesthesia machine in any of the university clinics of the University of Budapest Medical School. All they had was oxygen and the resourcefulness of Hungarian technicians. We constructed a breathing bag from the inflatable inside of a soccer ball. This was attached by a T-tube to the reducing valve of the oxygen tank and to the face mask or the tracheal tube. The necessary connections were made overnight. After oxygenating the patient, I gave him some demerol, induced anesthesia with pentothal, gave him some d-tubocurarine, and intubated his trachea. After that, it was easy. I substituted demerol for the nonexistent nitrous oxide and gave pentothal and d-tubocurarine as required. It turned out that the patient's tumor was inoperable and the patient was able to respond to questions a few minutes after the end of the 60-minute anesthesia.

I was told that this was the first demonstration of tracheal intubation and the use of d-tubocurarine in Hungary.

The next day I lectured at the Postgraduate Medical School on "Anesthesia for Thoracic Surgery" during which I deplored the lack of anesthesia machines in Hungary. When I finished the Director of the hospital who was related by marriage to one of the Communist leaders (who were getting ready to take over the government officially, but who in fact were already in control of everything important such as the police), scolded me saying that it is easy to speak as a rich American who doesn't understand the situation in a poor country. I told him that I grew up in this country and I know the situation and asked him if he had a car. He answered angrily, "I drive a Hudson." At that time, these large, 8-cylinder Hudson cars were status symbols and used by all the higher-ups in the Communist hierarchy. When I told him

that for the price of one Hudson car they could get 10 anesthesia machines, he retorted, "Don't you drive a car?" I answered "Yes, I do. But if I would have to choose between an anesthesia machine for my patients and a car, I would choose the former." He stormed out of the meeting and afterwards several friends of mine suggested that I should leave the country immediately. I laughed them off and went ahead with the rest of the program of the day. About 11:00 p.m., I rang the bell of the apartment house where I was staying with Edith's uncle. The janitor, whom I have known since before the war, turned to me and said "Please don't go up. Two men are waiting for you upstairs since 8:00 p.m." "They shouldn't be kept waiting any longer," I said and told my friend that unless I got in touch with him in the morning, he should notify the American Consulate. The two men upstairs turned out to be the younger brothers of a friend of one of my classmates in high school who with his wife immigrated to the United States the week before. They wanted me to deliver something they left behind.

At this 1948 Budapest meeting, I first met Otto Mayerhofer who later became the first Professor of Anesthesiology at the University of Vienna Medical School and who followed me as fifth President of the World Federation of Societies of Anaesthesiologists (WFSA). At that time, he was a handsome 28 year-old who stayed in one of the University dormitories. He was very thrilled that the makeshift nameplate on his door indicated Professor Mayerhofer. This was the start of a friendship that gave me much pleasure over half a century.

5. THE OPPOSING INFLUENCES ON THE DEVELOPMENT OF ANESTHESIOLOGY IN THE UNITED STATES

At the end of World War II, conflicting influences shaped the future of anesthesiology in the United States. The great Ralph Waters reigned supreme in Madison, Wisconsin. His pupils occupied many of the most important chairs in Anesthesiology. A group of anesthesiologists, led by Dr. Roland Whittaker of Cleveland, dominated the American Society of Anesthesiologists (ASA). They advocated that whenever possible, anesthesia should be administered by trained physicians — anesthesiologists. Anesthesiologists should be compensated on a fee-for-service basis, especially in institutions where other specialists worked for private fees. The effort of this group was strongly supported by Mr. Jack Hunt, who for many years was the Executive Secretary of the Society. A small group of “young Turks” headed by Drs. Beecher, Dripps, and Papper fought against placing overemphasis on these economically motivated concepts and propagated the primary importance of good training of future generations and sound research, both basic and clinical. In 1959, they established the Association of University Anesthesiologists (AUA). I was elected to membership the following year. At first its membership was limited to 100 members with yearly dues of \$5. They met once a year and although these meetings had a formal program, it was not followed closely. If the discussion of the first topic presented took all morning, the rest of the papers were not presented or presented in the afternoon displacing the afternoon papers. Everybody paid his own expenses and there was no formal banquet. In my opinion, unfortunately, the character of the AUA changed completely. It now has hundreds of members, its meetings are little different from other large anesthesia meetings, and attendance costs several hundred dollars.

Working for a salary at a hospital where most other specialists worked on a fee-for-service basis put me in a difficult situ-

ation. Enormous pressure was put upon me to change the form of my compensation and to disassociate myself completely from the School of Nurse Anesthetists at Mercy. The situation was made more complicated because on other levels I became more and more involved in the activities of the American Society of Anesthesiologists. At various times I served as Chairman of ASA's Research Committee. In 1964, I was Chairman of the Program Committee for the Annual Meeting of the American Society of Anesthesiologists to have been held for the first time in Pittsburgh. Two days before the scheduled start of the meeting, all hotel employees went on strike and the meeting had to be canceled. It was a heartbreak after all of the effort that went into the organization of the meeting. Adding insult to injury, I was asked to organize a substitute Annual Meeting, on a smaller scale, to be held in Chicago about six weeks later.

I also became involved in the local political structure of the ASA. I was elected in succession Alternate Delegate, Delegate, and District Director. When I left Pittsburgh in 1962, Dr. E.S. Siker, my associate and friend, was elected to complete my unexpired term as District Director. This was the start of a brilliant career in organized anesthesiology, perhaps never equaled by any other individual in the history of the American Society of Anesthesiologists. He was re-elected as District Director in his own right, and President of the ASA in 1973. He was also elected to the American Board of Anesthesiology in 1971 and first became Secretary of the Board, a position he held for nine years, and then completed his twelve-year directorship as President. In addition, he chaired the Executive Committee of the World Federation of Societies of Anaesthesiologists from 1980 through 1984. And in 1988, he became the inaugural President of the Association of Anesthesia Program Directors. He developed one of the best residency training programs in the nation at Mercy Hospital, a program that was highly competitive in recruiting excellent residents, many of whom went on to become well known academicians. He retired as Chairman at Mercy in 1993,

and became Executive Director of the Anesthesia Patient Safety Foundation.

The pressure to change the economic structure of the Anesthesia Department at Mercy grew more and more intensive. Mr. Hunt, the Executive Secretary of the A.S.A., visited me on several occasions and kept telling me that I was doing great harm to the cause of organized anesthesiology by persisting to work for a salary at a hospital where all specialists, except for radiology and pathology, worked on a fee-for-service basis. I finally broke down and decided to take up the matter with Sister Ferdinand who was then the Superintendent of Mercy Hospital. She was sympathetic to my problem and promised to discuss it with the Board of Trustees of the Hospital. Several months passed without a decision. In the meanwhile, I was invited to become the Chairman of the Anesthesia Department of Montefiore Hospital in New York. I told Sister Ferdinand that I must have an answer by a certain date, otherwise I would be forced to resign. When the day came, she again asked for a few weeks delay. I stuck to my resolve and resigned on the spot. Sister Ferdinand put her head on the table and cried like a child and my eyes also became moist. I told Sister Ferdinand that Rick Siker was more than able to continue to run the department and left in a sad mood.

The Sisters of Mercy were extremely kind to my family and me. From the first day they made me feel at home. They even went as far as to bend fortune for our sake. When our oldest daughter, Eva, was hospitalized for a tonsillectomy at Christmas time one year, "by chance" she won the large doll at the lottery organized for the pediatric patients. I felt that some pious Sister had to pay heavy penance for this "chance" event. The head of the kitchen was a Sister who was rumored to be of Hungarian-Jewish background. She was an excellent gourmet cook and the meals at the banquet that followed the Annual Staff Meeting always had a theme. The Sisters were not allowed to drink alcoholic beverages or serve alcohol. They were allowed the use of alcohol in cooking and Sister X certainly took advan-

tage of this permission. At one of these banquets, I was sitting next to a young surgeon, who was one of the favorites of the Sisters. When we finished the dessert, liberally laced with cognac, Sister X asked the young man, "Would you like to have another dessert?" He responded, "I would love to Sister, but I'm driving."

My family was very upset when I told them that we would leave Pittsburgh. Looking back, the 15 years spent in Pittsburgh were the happiest in our lives. A few years after our arrival we had a house built to our specifications, which we enjoyed. Edith's parents were living close to us and we were free to enjoy a rather busy social life. We had ample opportunity for tennis, swimming, water skiing, and skiing. When in 1960 I was invited to be a Visiting Professor in Australia, Edith and I combined it with a four month trip around the world. Our oldest daughter, Eva, who was already away in college, was not enthused about the move and our youngest daughter, Barbara, was too young to care. But our middle daughter, Judy, who had just completed her junior year in high school, was heartbroken. In the end, we decided to leave her with a close friend, Carol Phebus, and let her complete her high school education in Mt. Lebanon.

The life of Carol Phebus is a story in itself. Carol was an 18 year-old German girl, the daughter of a Protestant minister, who after World War II married an American lieutenant. They soon had a son and returned to America where her husband died of a brain tumor. We met her through my mother-in-law for whom she worked part-time, making custom jewelry. She decided to go to college and was admitted to the University of Pittsburgh where she was an honor student and obtained a B.S. and M.S. in chemistry and biology. For awhile she worked as a research assistant and then, in her mid-thirties, decided to apply for admission to medical school. I tried to dissuade her but she was adamant and went to medical school. She again was a top student. After graduation and an internship, she specialized in pediatric oncology and hematology. She had a brilliant career at the

Children's Hospital in Pittsburgh. She married a professor of biochemistry, Dr. Robert Basford, and both retired recently.

I realize that my story is getting disjointed, but it is difficult for me to adhere either to strict chronological order or to cover different topics exclusively without taking side trips along "memory lane." So back again to organized anesthesiology and perhaps the greatest disappointment of my professional life. I always was a great admirer of the American Board of Anesthesiology and my greatest ambition was to become a member of that board. I never made it. I was invited on two occasions, several years apart, to serve as a Guest Examiner. (The second time I believe was due to the instigation of Rick Siker). I must have done something wrong on both occasions. On thinking back, I think I know what my peers did not like. It was my opinion that an anesthesiologist who intended to go into clinical practice, work alone or in a small group in a community hospital, needed a different store of knowledge and a different approach to problem solving than someone interested in going into academic anesthesia. My first question to the candidates was "What are your future plans for a career in anesthesiology?" I then selected my questions accordingly. As far as I know, none of the candidates failed by me passed the examination and all I passed were also passed by the other examiners. The Board, however, apparently disapproved of my unorthodox approach and never invited me back again to be a Guest Examiner, the only road to membership on the Board. Over the years I received many honors. I was the first individual to receive both the Distinguished Service Award and the Award for Excellence in Research of the ASA, received four Honorary Doctorates, two Honorary Fellowships in the Faculty of Anaesthetists of the Royal College of Surgeons of England and in Ireland, was elected to Honorary Membership in numerous national anesthesia societies, was President of the World Federation of Societies of Anaesthesiologists, and was decorated by the Emperor of Ja-

pan. All these, however, never compensated for my disappointing experience with the American Board of Anesthesiology.

The World Federation of Societies of Anaesthesiologists

The idea of the establishment of an international body dedicated to the provision of safe and effective anesthesia to all people of the world and to improvement of the standing of anesthesiology in the hierarchy of medical specialties originated with the same Harold Griffith who introduced muscle relaxants into medical practice. In the early 50s, he organized several preparatory meetings in Europe that were attended by a few anesthesiologists from England, France, Belgium, and the Netherlands. In 1955, at a meeting organized by Professor Ritzema Van Eck of the Netherlands and attended by delegates from many nations, the World Federation of the Societies of Anaesthesiologists became a reality. The ASA refused to send an official delegate to this organizing meeting. The argument of the isolationist-minded majority was that such an organization could do nothing for American anesthesiology. They never entertained what American anesthesiology could do to help the deplorable state of anesthesiology that existed over most of the world. I attended the meeting in a dual capacity, as the official delegate of the Israeli Society of Anesthesiologists and as a “self-appointed” observer from the United States. I visited Israel, where my brother Béla lived at the time, and worked in the Tel Hashomer Hospital near Tel Aviv for two weeks. The Israeli Society wanted to join the WFSA, but could not afford to send a delegate. They elected me to Honorary Membership in their society and authorized me to represent them at the organizing meeting of the WFSA.

Dr. Harold Griffith of Canada was elected the first President and Dr. Geoffrey Organe, of the United Kingdom, the Secretary-Treasurer of the WFSA. It was decided to hold the next meeting of the WFSA in Toronto, Canada in 1960 and to have a meeting thereafter every four years. Between 1955 and 1960, I was able to convince the majority of delegates of the ASA of the

merits of joining the WFSA. I was a member of the official American delegation. Professor Ritzema Van Eck was elected President, and Geoffrey Organe was re-elected Secretary-Treasurer. I was elected one of the Vice Presidents of the WFSA.

The next meeting of the WFSA was held in Sao Paulo, Brazil in 1964. I was again an official delegate. Some members of the American delegation were of the opinion that since the ASA had by far the largest membership of any national anesthesia society, an American should be elected the next President of the WFSA. Championed by Leo Hand, an old friend from Boston days and a past President of the ASA, I was selected to be the American Candidate. When I learned that the British delegation intended to nominate Geoffrey Organe for the presidency, I tried to convince the American delegation not to submit my name to the Nominating Committee of the WFSA. I argued that Geoffrey Organe was one of the founders of the WFSA and as Secretary-Treasurer, had worked very hard for nine years to steer the WFSA through considerable initial difficulties. I told my fellow delegates that he deserved the honor of the presidency much more than I did. Leo Hand, the consummate politician, however, could not be stopped if there was a goal to be attained. He succeeded in having me unanimously nominated for the presidency of the WFSA. Our British friends, however, did not accept defeat without a fight. They proved again that while we Americans have politicians, they have statesmen. According to the Bylaws of the WFSA, counter nominations could be made from the floor. Geoffrey Organe was very popular, but the British felt that they may be a few votes short. To guard against this eventuality, they persuaded four or five Central American Anesthesia Societies to apply for membership in the WFSA. They received provisional membership that entitled them to vote in the election of officers at the General Assembly. Dr. Organe won by two or three votes. These Central American Anesthesia Societies never paid their membership dues and after a few years were expelled from the WFSA.

When I went to congratulate Dr. Organe, we both were uncomfortable. We had been friends since 1949, when at a meeting in Atlantic City he gave me, as he used to say “In exchange for an American breakfast” a few ampules of decamethonium, a depolarizing muscle relaxant, the use of which he pioneered in England. I felt that I should not have run against him and he was not quite at ease with the tactics used to achieve victory. The same evening we were both invited to a reception by Professor Quintin Gomez, President of the Philippine Society of Anesthesiologists, who gave both of us a nicely framed plaque indicating our election to Honorary Membership in the Philippine Society of Anesthesiologists. It seems that Quintin came prepared for any eventuality. At the reception Geoffrey drew me aside and assured me that if I chose to run for the Presidency of the WFSA in 1968 in London, I would have his support. In 1968 I was elected President and served until 1972, when at the Kyoto meeting, my good friend Professor Otto Mayerhofer of Austria was elected to succeed me. It did not escape the attention of some of our European friends that Teddy was Austrian and I was of Hungarian birth. They quipped that “The resurrected Austro-Hungarian Empire gained control of the WFSA.”

Between the Sao Paulo and the London congresses of the WFSA, I commissioned a Colombian anesthesiologist and a gifted artist, who designed the original logo of the WFSA, to design a medallion, to be worn on a ribbon around the neck of the President of the WFSA on festive occasions. I intended that it should be passed on from outgoing to incoming presidents for safekeeping, together with the pennant of the WFSA. Geoffrey Organe wore the medallion at the opening and closing ceremonies of the Congress in London. It was passed on to successive Presidents of the WFSA; first to me, then to the presidents who followed me: Professor Mayerhofer in 1972, Professor Quintin Gomez in 1976, and to Professor John Bonica in 1980.

The consensus of the national societies was that in 1984 a South American should be elected President of the WFSA. The

logical candidate was Professor Carlos Rivas of Caracas, Venezuela. He was one of the founders of the WFSA and had been active in many capacities in the WFSA. For many years he conducted in Caracas a training course for South American anesthesiologists. About two years before the 1984 Congress, scheduled for Washington, D.C., it came to my attention that Dr. Carlos Parsloe, a relative newcomer to the affairs of the WFSA was actively lobbying all over the world for the Presidency of the WFSA. At the time, Professor Rivas was recovering from an operation for the removal of a malignant tumor of the jaw. With his modest personality he would have been unable to do any personal lobbying to further his cause. His South American “friends” failed to promote his candidacy and Dr. Parsloe, the President of the Brazilian Society of Anesthesiologists, was presented by the South American Anesthesia Societies as candidate for the Presidency of the WFSA. I appeared before the Nominating Committee of the WFSA, nominated Professor Rivas, and explained my reasons for this unusual step. Politics, however, as so often happens, won over justice. Dr. Parsloe was nominated and elected President of the WFSA. I made no secret of my feelings and after the election I told Dr. Parsloe that in my opinion the Presidency should have gone to Professor Rivas.

In Washington, at the opening of the ceremony of the 1984 Congress, Professor Bonica, as all Presidents since 1968, wore the medallion with the logo of the WFSA around his neck, and after the closing ceremony he passed it on to Dr. Parsloe, the newly elected President. When we convened in 1988, I noticed that at the opening ceremony, Dr. Parsloe, President of the WFSA, wore a different medallion. He then presented each past President of the WFSA with a smaller replica of the medallion. When I asked him what had happened to the original medallion, he said that it was lost during the transfer between Professor Bonica and himself and then quickly excused himself and left. I found it strange that the loss of the Presidential Medallion was not reported to the Executive Committee of the WFSA. Dr. Parsloe

made no effort to ascertain whether a replica was available or could be made and took it upon himself to order a new medallion, the artistic value of which was inferior to the original one. As it happens, I have a replica of the original medallion and would have gladly placed it at the disposal of the WFSA.

Perhaps the most important contribution of the WFSA was the establishment of training courses in anesthesiology. One was in Caracas, Venezuela, directed for many years by Professor Carlos Rivas and assisted by Professor Juan Nesi, originally of Buenos Aires, Argentina. This course was intended to train anesthesiologists from Central and South American countries. The second course, intended to train anesthesiologists for the developing countries from the rest of the world, was directed by Professor Anderson. The language of the course was English and, in addition to Scandinavian faculty, many outstanding American and British anesthesiologists served for several months at a time as instructors.

The WFSA also published two monographs, *Obstetrical Anesthesia* and *Intensive Care*, authored by John Bonica and Peter Safar, respectively.

6. MY RESEARCH INTERESTS

I have been involved in medical research since 1930. Until 1947, when I established my first, small research laboratory at Mercy Hospital in Pittsburgh, my research was unfocused and covered a variety of topics. In 1947 I became interested in an enzyme, plasma butyrylcholinesterase (nonspecific cholinesterase). This enzyme, although it is widely distributed in the mammalian, including the human, organism, does not have any known physiological function. In contrast to its related enzyme, acetylcholinesterase, it can interact with and break down many naturally occurring and synthetic esters, among them ester type local anesthetic and neuromuscular blocking agents. The activity of both enzymes is inhibited by a variety of chemically different antagonists. In most instances, the affinity of these inhibitors for plasma butyrylcholinesterase is much greater than for acetylcholinesterase. Later, using phospholine, an organophosphate-type inhibitor for the symptomatic treatment of myasthenia gravis, I discovered that doses of phospholine, which completely inhibited plasma butyrylcholinesterase, had only moderate inhibitory effect on the physiologically important acetylcholinesterase. I entertained, therefore, the hypothesis that the main role of plasma butyrylcholinesterase is the preferential binding of cholinesterase inhibitors, thereby preserving the functional integrity of the physiologically important acetylcholinesterase. We demonstrated that the butyrylcholine activity of human plasma is much higher than that of most other mammals. As will become evident later, this fact is very important for the clinical use and comparative safety of neuromuscular blocking and local anesthetic agents.

Using various ester-type local anesthetic agents as substrates for plasma butyrylcholinesterase, we discovered that substitution of a Cl atom into the 2 position of the benzene ring of procaine (Novocain) increased the rate of its enzymatic breakdown of the resulting compound 2-chloroprocaine (Nesacaine)

by plasma butyrylcholinesterase by a factor of 4 to 5 of that of procaine. Fortuitously, the local anesthetic potency of 2-chloroprocaine turned out to be 1.5 times that of procaine. Its penetrating ability was found to be much greater than that of procaine, making it especially suitable for the production of peridural and peripheral nerve blocks. But the greatest advantage of 2-chloroprocaine over all other local anesthetic agents in clinical use is that, unless a very large dose of it is injected intravenously or the plasma butyrylcholinesterase activity is drastically reduced by a genetic anomaly or intoxication with a cholinesterase inhibitor, it has no systemic toxicity. This is especially important in obstetrics. Since the placenta has a high concentration of plasma butyrylcholinesterase, only the pharmacologically inactive metabolites of 2-chloroprocaine reach the fetal circulation after the administration of peridural block with relatively large doses of 2-chloroprocaine during labor and delivery. In contrast, other local anesthetic agents used for this purpose penetrate into the fetal circulation and may depress vital functions of the newborn.

The history of the anesthetic use of 2-chloroprocaine is a good example of the influence of business interests on the fate of a drug. 2-chloroprocaine was made available to anesthesiologists at about the same time that lidocaine (Xylocaine®) was introduced with great fanfare by the Swedish pharmaceutical giant, Astra. They failed to recognize the species differences in the toxicity of local anesthetic agents and claimed that lidocaine is twice as potent and not any more toxic than procaine. This was true in laboratory animals that hydrolyzed procaine very slowly, but not in man whose plasma butyrylcholinesterase hydrolyzed procaine relatively rapidly. Before this was recognized, lidocaine had been used in the same concentration as procaine, and there were many fatalities attributable to lidocaine. When visiting a famous medical center, I observed the death of an old lady who, for sacral block, received 20 ml of 2% lidocaine.

At first, 2-chloroprocaine was marketed by Wallace and Tierman, a primarily chemical company with little interest in pharmaceuticals. Later, the rights to 2-chloroprocaine were sold to a small drug company and finally bought by Astra. It is now widely used for peridural block in obstetrics, but in my opinion is still underutilized for peridural block for general surgical procedures and for peripheral nerve blocks.

During 1948 I also used succinylcholine dichloride as a substrate in my plasma butyrylcholine experiments. About a year later I read two publications, one by A.P. Phillips, a young chemist working for Burroughs Wellcome in Tuckahoe, New York, and the other by Professor Daniel Bovet of the Istituto Superiore Sanita of Rome, Italy, describing the neuromuscular blocking effect of succinylcholine in laboratory animals. Professor Bovet synthesized both gallamine (Flaxedil) and chlorpromazine and was awarded, in 1957, the Nobel Prize in Medicine. It occurred to me that since succinylcholine is hydrolyzed by human plasma butyrylcholinesterase, relatively rapidly in man, its neuromuscular effect would be short lasting, and in clinical practice it would not be necessary to terminate its neuromuscular effect by antagonists. I tried to interest several pharmaceutical companies in succinylcholine but was turned away with the statement, "Anesthesiologists need muscle relaxants which have longer, not shorter, duration of action than tubocurarine." Finally, in late 1951, I was able to get some samples of succinylcholine for clinical use. With today's regulatory requirements, it would take several years of pharmacological experiments and toxicity studies in at least three mammalian species and as many as 1000 administrations to volunteers of various ages, with or without pathological changes, before succinylcholine would have been released for clinical use. In the 50s, notification of the Food and Drug Administration was the only requirement. Even so, the reports of three groups of European investigators preceded my publication on the first use of succinylcholine in the Western

Hemisphere. I was an early advocate of the use of succinylcholine in continuous intravenous infusion.

At that time, I had no laboratory facilities for animal experimentation and could only do animal experiments in the laboratories of Burroughs Wellcome in Tuckahoe, New York in cooperation with Drs. E.J. de Beer, S. Norton, and Mr. A.L. Wnuck.

A logical sequence to my interest in enzymes of acetylcholine metabolism and inhibitors of cholinesterases was my involvement in myasthenia gravis, an autoimmune disorder of neuromuscular transmission. I developed this interest from observation of the work of Drs. H. R. Viets and R.S. Schwab at the Myasthenia Gravis Clinic at the Massachusetts General Hospital. When I encountered the first myasthenic patient at Mercy, I learned much to my surprise that although there are many myasthenic patients in Pittsburgh, there was no physician between Philadelphia and Cleveland interested in the management of these patients. In 1955, the myasthenic patients and their families got together and organized a group that met at regular intervals and later became a chapter of the Myasthenia Gravis Foundation of the United States. When these people learned of my interest in myasthenia gravis, they asked me to organize a clinic for the treatment of myasthenics. The Sisters of Mercy supported the idea enthusiastically. I went to New York for a few days to observe the management of myasthenics by Dr. Kermit E. Osserman at the Myasthenia Gravis Clinic of the Mt. Sinai Hospital and to ask his advice regarding the organization of such a clinic at Mercy. In February of 1957, we opened the clinic at Mercy. The number of patients attending the clinic from a 100-mile radius grew rapidly, and soon we frequently had myasthenic inpatients who needed hospitalization for the treatment of a myasthenic emergency or for that of an unrelated disorder. Dr. Pearl G. McNall of the anesthesia staff of Mercy Hospital cooperated enthusiastically in the management of the clinic and spent many nights at the bedside of myasthenic patients in crisis, who needed minute to minute attention and regulation of their drug require-

ments. When I left Mercy in 1962, Pearl took over the management of the clinic and earned the gratitude of many myasthenics and their families for her self-sacrificing, devoted support.

When I moved to New York in 1962, I decided against opening another Myasthenia Gravis Clinic at Montefiore. I decided to see myasthenic patients and do research on myasthenia gravis in cooperation with Dr. Osserman at the Myasthenia Gravis Clinic under his direction at the Mt. Sinai Hospital. Dr. Osserman was the only neurologist who restricted his practice to myasthenic patients. At that time, more than six hundred myasthenics were on the clinic's roster. My background in the pharmacology of cholinesterase inhibitors meshed well with his enormous clinical experience. We adapted the technique of regional intravenous neuromuscular block, first described by Drs. G.T. Torda and D. Klonymus, to enable the reliable and safe diagnosis of myasthenia gravis. Most often myasthenia gravis can be diagnosed by the temporary improvement of the signs of the disease with the intravenous injection of a cholinesterase inhibitor, usually edrophonium chloride (Tensilon®). When the results of the edrophonium test had been inconclusive, worsening of the symptoms after small intravenous doses of d-tubocurarine confirmed the diagnosis. The magnitude of the effect of even small doses of d-tubocurarine, however, is unpredictable, and when primarily the respiratory muscles had been affected by the disease, respiratory paralysis developed, which was occasionally fatal. The regional intravenous curare test consists of the intravenous injection of 0.2 mg d-tubocurarine dissolved in 20 ml 0.9% sodium chloride solution into a superficial vein of an upper extremity. The circulation to the extremity is occluded by a tourniquet placed above the elbow before injection. The other upper extremity was injected with saline only, and served as the control. In nonmyasthenic subjects, this small dose of d-tubocurarine caused no change in grip strength. In myasthenics, the grip strength was decreased or abolished. The small dose of d-tub-

ocurarine that entered the circulation after release of the tourniquet had no systemic effect.

In 1961, I was elected President of the Medical Advisory Board of the Myasthenia Gravis Foundation of America. After the untimely death of Dr. Osserman I ceased to participate in the activities of the Myasthenia Gravis Clinic at Mt. Sinai Hospital and saw only an occasional myasthenic patient at Montefiore.

Moving to Montefiore Hospital was a turning point in my research. I was assigned, temporarily, until the Moses Research Building under construction had been completed, a much larger laboratory than the one I had in Pittsburgh. When the Moses Research Building became ready for occupancy, I was given complete freedom to adapt and equip for biochemical and pharmacological research most of the space on the fifth floor of the building. Dr. J. Crispin Smith, a talented young biochemist, came with me from Pittsburgh, and three excellent technicians, Mrs. A.M. Deery, Ms. M. Kuleba, and Ms. E. Stevens, joined our team. In the early seventies, the addition of E.S. Vizi to our team gave a new dimension to our research. The young Dr. Vizi was working in the department of pharmacology of the Semmelweis Medical University in Budapest. He had just completed an 18 month fellowship with Professor W.D.M. Paton (later Sir William Paton) in the department of pharmacology in Oxford. When Vizi expressed interest in studying for a while in the United States, Professor Paton recommended that he should come to me. The first time he worked with us for a six-month period. We hit it off with each other right away and found that our approaches to the solution of problems and experimental design were complementary. He had all the right attributes of a young scientist. He was imaginative, intuitive, and industrious. After his first stay, he came back to us three to four months every year until, because of his increasing responsibilities in Hungary, he had to reduce the time he could devote to us. His brilliant career exploded like a rocket. At present, he is Director of the Medical Research Institute of the Hungarian Academy of Sciences, Vice President

of the Hungarian Academy of Sciences, and Professor of Pharmacology at the “Haynal Imre” Postgraduate Medical School in Budapest. With his cooperation, we extended our studies from the neuromuscular junction to other sites of chemical neurotransmission, such as the brain, heart, and intestines.

Professor C.T. Cavallito, a pharmaceutical chemist of great renown, also contributed enormously to the widening of the scope of our research. He extended our interest from the catabolizing enzymes of acetylcholine, cholinesterases, to its anabolizing enzymes, cholineacetyltransferases.

Starting in 1964, we had at any given time one to four young Japanese anesthesiologists who came to our laboratory for two-year periods of research training. I cannot speak highly enough about their dexterity, industry, and devotion. I soon learned that, if on a Friday afternoon I asked a question to which they had no ready answer, they worked through Saturday and Sunday to be able to give me the answer Monday morning. Eventually, many of these talented young men became heads of academic anesthesia departments in Japan. Their loyalty is indescribable; they never failed to visit me when they come to the United States, and on my frequent visits to Japan they treated me like a prince.

Dr. T.A.G. Torda spent two 2-year periods with us combining clinical work with clinical research and basic research. He eventually succeeded Professor G. Davidson, who also spent two years with us, as Chairman of the Department of Anaesthesiology of the University of New South Wales in Sydney, Australia. Another illustrious associate who spent a few months with us in 1981 is Professor G. Benad, Professor of Anesthesiology at the University of Rostock, which was then in East Germany. At that time, East German physicians were not allowed to travel abroad, except in small groups, for short periods, always accompanied by a “trustworthy” colleague or administrator. Neither of us understand how somebody who was not even a member of the Communist Party received permission to spend several months in the United States, alone. After

the unification of Germany, Professor Benad served with distinction as the Dean of the Medical School of the University of Rostrock for many years.

My basic science research was always patient-oriented and was frequently complemented by clinical pharmacological and/or clinical research. Detailed enumeration of my modest accomplishments would be too boring for the readers of an autobiography. I would just like to mention a few, however, that stood the test of the time and still have some clinical significance.

In 1952, when large size carbon dioxide absorbers became available, I recommended the use of nitrous oxide-oxygen in low flow (500 ml/min N_2O -500 ml/min O_2) systems. At that time it was not unusual to use high flow (6L/min N_2O -3L/min O_2) gas mixtures in semi-open systems. I demonstrated that: a. adequate oxygenation and carbon dioxide removal could be accomplished with low flow systems; b. heat loss of the anesthetized patient could be decreased; and c. the cost of anesthesia could be reduced. Since then, the adverse effect of nitrous oxide discharged from semi-open systems on the health of the operating room personnel has been amply demonstrated. At the time no anesthesia journal was willing to accept my paper, which was published in the *Annals of Surgery*. Times have changed, however, and a few years ago a society devoted to low-flow anesthesia was established.

2-Chloroprocaine, introduced into clinical practice by me in 1952, still remains the only local anesthetic that is more potent and less toxic than procaine and is the agent of choice for use in obstetrics.

I was the first to use n-allylnoroxymorphone (Naloxone) in clinical practice and demonstrated that it is the only narcotic antagonist that has no narcotic properties and does not cause any respiratory and circulatory depression. I also pointed out that when using it for the antagonism of deliberately induced or accidental respiratory depression at the end of anesthesia, or for the resuscitation of accidental or deliberate poisoning with nar-

cotics, it should be administered in small increments until the patient's respiratory rate increases to 14 to 18/minute. The reason for this is that acute dependence on narcotic analgesics (e.g. morphine) develops rapidly and if their effect is antagonized abruptly with a large dose of Naloxone, acute withdrawal develops that could kill the patient.

The first use of succinylcholine in the United States and the systematic investigation of all muscle relaxants in clinical use (and many others that did not make the grade) may also have some lasting merit.

Minor contributions to the understanding of the physiology of neuromuscular transmission made in our laboratory include: a. elucidation of the mechanism of action of depolarizing muscle relaxants; b. demonstration that, at physiological stimulation rates (15 to 50 Hz), the neuromuscular potency of muscle relaxants is greater than at the 0.1 Hz stimulation rate, commonly used in neuromuscular studies; c. demonstration that, in the absence of muscle relaxants, lowering the ambient temperature significantly increases the force of contraction of both directly or indirectly stimulated muscles and that this phenomenon can mask the increased potency of muscle relaxants at low ambient temperature.

Several residents who trained at Mercy joined the anesthesia staff and, as my personal clinical load diminished, I could devote more time to research and lecturing in the United States and abroad. Drs. Pearl G. McNall and Theodore S. Machaj were the first two residents to join our department. I can't speak highly enough of their devotion to patients and their personal loyalty to me. They both stayed on after I left for New York in 1962 and finished their illustrious careers at Mercy. Dr. McNall took over for me as Director of the Myasthenia Gravis Clinic at Mercy.

This marks the end of what Francis Folds was able to complete before his death.

7. THE FINAL TWENTY YEARS

When Francis Foldes left Pittsburgh and the Chair at Mercy Hospital to assume his new position at the Montefiore Hospital in New York, Deryck Duncalf elected to join him. Deryck had been a senior registrar at the Welsh National University Hospital in Cardiff, Wales. As noted in Francis Foldes's narrative, a principal reason for accepting the New York position was the attraction of a large laboratory facility and the promise of support for a research staff enabling him to engage in more sophisticated laboratory studies. Deryck's primary responsibilities included the management of daily operating room activities as Director of Clinical Affairs. This allowed Francis to spend most of his time in pursuit of his research goals. One of the first British research fellows to spend time at Mercy Hospital was Bernard Wolfson who had trained in Glasgow. Bernard married a Pittsburgher and when his fellowship was completed, he and Beverly returned to Glasgow where Bernard was appointed as a consultant anaesthetist. Francis had a high regard for Bernard Wolfson and invited him to New York. Fortunately for the undersigned, his marriage to a Pittsburgher led him to accept an invitation to join the faculty at Pittsburgh's Mercy Hospital.

Soon after Francis arrived in New York, he was joined by Hideo Nagashima, a young Japanese anesthesiologist who became his hard working and most loyal assistant. This relationship was to last until the very end of Francis's life. If Francis was Don Quixote, then Hideo was a constant Sancho Panza. As stated in the preface, Francis worked on his autobiography until his terminal illness made it impossible for him to continue. Much of what occurred in his life after 1978, therefore, was not chronicled. What follows is an attempt to complete the project with biographical information known to the undersigned with input from many sources. Chief among these include his daughters, Eva, Judy and Barbara, and colleagues who worked with him in New York. Chief among these are Hideo Nagashima and

Deryck Duncalf. Except for the record of the publications that emanated from his twelve years of research at the University of Miami, more personal details of his winters in Miami have not been made available.

Within a year of his arrival in New York, Francis developed a left acoustic neuroma. How Francis reacted to the problem and what he did about it were almost predictable. The year was 1964 and microsurgical techniques were not widely practiced. Francis was quite aware of how he would be affected were it necessary to sacrifice the 7th cranial nerve, a frequent casualty of acoustic neuroma surgery. He had heard that the House Group in Los Angeles had developed a technique for radiological identification of the precise size and location of the tumor which allowed the sparing of the 7th cranial nerve when possible. Magnetic resonance imagery had not yet been introduced. He described the technique in lurid (and amusing) detail, stating that the secret of the success at the House Group with this technique was getting the contrast media to the tumor area. This, he said, was accomplished by a “very strong Swedish lady who held me upside down by the ankles and shook me until the stuff was in the right spot.” Although it was necessary, as it is in most instances, to sacrifice the auditory nerve, the facial nerve was spared. From that time on, those walking or sitting with Francis had to be on his right side.

In 1975, at the age of 65, Francis retired from the Chair at Montefiore, continuing as both Professor Emeritus and as a consultant. The thoughts of many who retire from such an exhausting pace of activities turn to more leisurely pursuits. Francis could easily have spent more time in two of his favorite avocations — he was an ardent and accomplished skier and he’d begun to develop a passion for bridge (his bids were not always correct, but he was never in doubt). Instead, his rigorous investigative career continued. He spent the first 15 months of his “retirement” as visiting Professor at the Catholic University of Nijmegen in Holland. While there, he established a research labo-

ratory for the study of both the neuromuscular junction and muscle relaxants. When he returned from Holland, he was invited to spend as many winter months as he wished as visiting faculty in the department of anesthesiology at the University of Miami.

Francis enjoyed the warm weather of Miami especially after he required a left hip prosthesis, performed at the Mayo Clinic, which ended his skiing days. But his exercise regime continued with a morning bicycle ride from their condo on Key Biscayne to Boggs Park at the tip of the Key. In addition, Francis prided himself on his “daily dip” of twenty laps in the nearby swimming pool — a distance of about one quarter mile. The hip prosthesis was not the end of major intercurrent health issues. Bothered from time to time with anginal pain, Francis ultimately underwent a coronary bypass, also at the Mayo Clinic, in 1991.

Brian Craythorne, Chairman of the department at the University of Miami, provided Francis with the opportunity to continue his research activities along with a laboratory, personnel, and secretarial support. In every way it was a mutually successful arrangement. A very warm friendship developed between the Craythornes and the Folders and continued until the end of Francis’s life.

When one looks at Francis’s post “retirement” CV, there is no decline in the number or quality of his research publications. Francis continued to submit papers, based upon his continuing research at both institutions, and continued to present his findings at many meetings, both national and international. And until his final illness, he continued to be in demand as a speaker at major anesthesia meetings.

Space limitations prevent any complete discourse on the contributions made by Francis and his coworkers to the clinical pharmacology of neuromuscular blocking agents during the last 18 years of his life. But Francis continued to develop new theories and new agents from 1970 onward. This involved the development of such agents as pancuronium bromide, vecuronium bromide, atracurium besylate, pipercuronium bromide, rocuronium bromide and, as late as 1996, ORG9487, all of which

agents are now in clinical use. Perhaps one of the most important contributions was the elucidation of the “priming principle” which permitted a marked reduction in the effective onset time of a muscle relaxant by pretreatment with a small dose of the same, or similar, agent. But Francis’s search for the ideal muscle relaxant continued. Early in 1990, a new steroidal, nondepolarizing muscle relaxant was synthesized by Gideon Richter Pharmaceuticals in Hungary with a designation as SZ1676. Francis and his associates completed extensive pharmacodynamic and pharmacokinetic studies of the drug in animals, as well as toxicologic studies which proved to be favorable. Francis died before planned human volunteer studies could be initiated and development of this exciting compound has been suspended.

Francis had a uniquely intuitive mind as well as the inquisitiveness that characterizes a successful investigator. The significance of physiological calcium and magnesium ions for *in vitro* experiments on synaptic transmission, published in *Life Science* in 1981, was a product of his meticulous analysis of nearly a half century of *in vitro* experiments using Krebs’s solution. Francis discovered that traditional Krebs solution contained improper concentrations of ionized calcium and magnesium. The corrections that Francis made are now in universal use.

In a poignant anecdote Hideo Nagashima relates that in 1984 he and Francis stopped over in Hawaii on their way to a meeting in Japan. Francis told Hideo to meet him on Waikiki Beach for an 8:00 a.m. walk. The sun was up and it was very bright morning. As they walked westward on the beach, Francis said, “Let’s walk up to the end of the white sands”. With the sun behind them they walked more than a mile to reach the end of the beach where, beyond some protruded rocks, they found another beach. And so they continued. After walking several more beaches, interrupted by rocky out-cropping in what Hideo described as an almost endless journey, Francis said, “Hideo, now you realize that there is always something beyond your reach; you must

keep going!" Hideo believed that this was Francis's philosophy in pursuit of his goals until the day he died.

Francis often confessed that he was not always politically correct. But he felt it important for the specialty of anesthesiology to escape its designation as a derivative of surgery, and when he arrived at the Montefiore Hospital he established an independent Department of Anesthesiology. To further differentiate the two, he stated that, "The science of anesthesiology is experimental pharmacology and applied physiology. Therefore, administration of anesthesia must be titrated and we must pay attention to detail." A frequent Foldes quote was that, "Anesthesia is awfully simple or simply awful." In the pursuit of research and education, Francis took particular pride in the achievements of 28 Japanese research fellows whom he trained between 1968 and 1997. Among these, in addition to Hideo Nagashima, Kazuaki Fukushima attained great prominence not only as an investigator but as Chairman of the Department of Anesthesiology at Keio University in Tokyo. There were also a few prominent Hungarian scientists who were trained by Francis and participated in the studies on the effects of muscle relaxants on adrenergic receptors and the bioassay of acetylcholine release. A seminal work in this area included Dr. Kuze's finding about the influence of temperature on acetylcholine release.

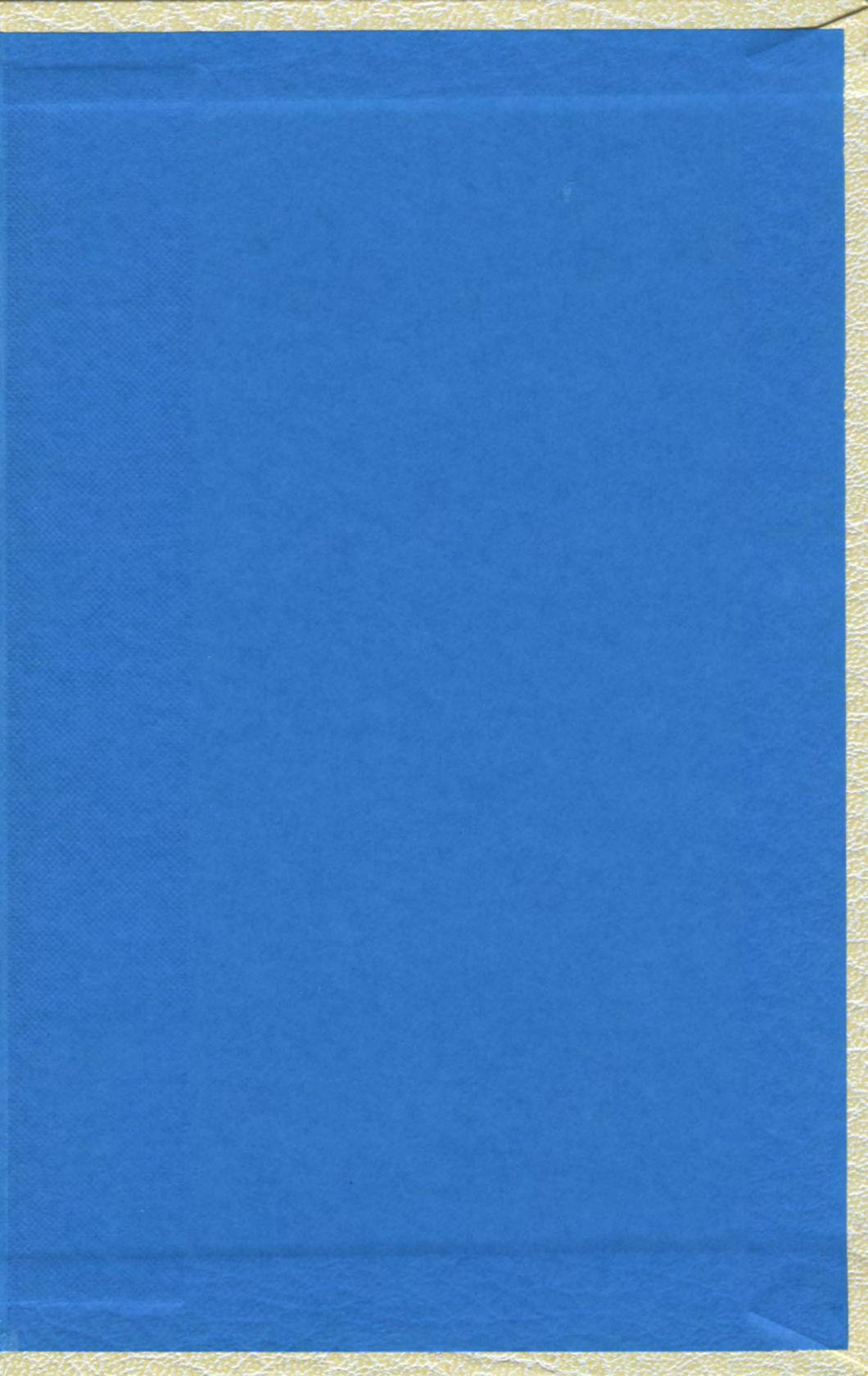
On June 13, 1990, the Emperor of Japan recognized Francis's contribution to the development of Japanese researchers, especially in the field of anesthesiology and neuropharmacology. In the official residence of the Consul General of Japan in New York, Ambassador Masamichi Hanabusa, representing the Emperor, bestowed upon Francis the Order of the Rising Sun, Gold Rays with Neck Ribbon. This was followed by a small reception where a champagne toast was given by Hideo Nagashima. It was no accident that the award was presented on Francis's eightieth birthday. Following the ceremony there was a gala party in Briarcliff Manor where Francis, Edith, and their children and grandchildren were surrounded by more than fifty close friends.

More than one full year after his death, there was yet another tribute to the esteem in which his memory is held by his colleagues and former students in Japan. The 1998 Annual Meeting of the Japanese Society of Anesthesiologists was dedicated to his memory. No American anesthesiologist, at least none known to me, has been so honored by another country.

Two months before his death, on a visit to Key Biscayne where Edith and Francis spent the winter months, while my wife, Eileen, and Edith chatted on the balcony of their condominium, Francis regaled me with charts, graphs, and research data about the newest compound he had developed. At the age of 86 his ability to expound upon complicated neuropharmacology was daunting.

When in May of 1997, an explosively metastasizing malignant melanoma stopped this incredible human and he had lapsed into a terminal coma, Hideo Nagashima called me with the news and said, “Now he is a sleeping giant.”

—Ephraim S. “Rick” Siker, M.D.
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