

THE HISTORY OF THE SURGICAL SERVICE
AT SAN FRANCISCO GENERAL HOSPITAL

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DEDICATION

This book is dedicated to our patient and understanding wives Gisela Schecter, Carolee Lim, Ruth Sheldon, Sally Christensen, and Marilyn Blaisdell. Their help and support not only made our careers possible but also ensured that they would be successful.

PREFACE

I was delighted and honored to be asked to assist in the publication of this landmark book on the History of Surgery in the San Francisco General Hospital. The authors are to be commended on their accurate, readable and historic portrayal of the evolution of this center of excellence in trauma and general surgical patient care. As I read through the manuscript, it brought back warm and clear memories of days spent here both as a junior medical student and later as a resident in the University of California, San Francisco surgical program. It presents an impressive timeline of surgeons who have taught here, a number of whom have moved on and become outstanding leaders in the field of surgery. After 40 years of practice as a surgeon, I look back on my training here at this hospital as one of the most important contributors to my overall surgical and medical education. This hospital and its surgical staff imbued me with the essential knowledge and technical skills necessary to be an accomplished general surgeon and, most importantly, they taught me the value of seeking advice from a more experienced specialist when the occasion arose.

I feel certain that every surgeon, who during their training has passed through the portals of San Francisco General Hospital, will also find in this book a powerful reminder of how important it has been in their life.

Robert Albo
Oakland, California
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INTRODUCTION

The authors of this history of San Francisco City and County Hospital—also known as San Francisco Hospital or San Francisco General Hospital (SFGH) by its official names over the years—have enjoyed putting this document together. It not only serves as the surgical history of this hospital, still affectionately referred to as “the County,” but it also represents the history of surgery itself during the 20th Century. This was the period described as the *Age of the Surgeon*, as it was during this period that our specialty emerged in full flower.

Throughout almost its entire history, San Francisco General Hospital has served as a training ground for medical students, interns, and residents. In 1864, Hugh Toland built his first medical school adjacent to the original County Hospital in North Beach, and in 1865, Toland was granted permission to use the hospital for clinical instruction. In 1872, Toland Medical School became the medical school of the University of California (UC).

In 1872, a new County Hospital was built on the present Potrero site. In 1879, UC negotiated an agreement with the San Francisco County Supervisors that gave the University responsibility for professional care and staff appointments and allowed medical students’ access to patients. Shortly thereafter, Cooper Medical College, which in 1908 became Stanford Medical School, developed a similar arrangement.

At the same time, four internship appointments were negotiated—two for UC and two for Stanford. The number of internships was gradually expanded, but it was not until the new brick and mortar hospital opened in 1915 that the first junior residents, called house officers, were added. Formal postgraduate surgical training emerged gradually during the 1920s.

Our description of the County Hospital Surgical Services starts in 1915 with the dedication of the new hospital, called the *Renaissance Hospital* because of its filigreed appearance. Definitive organization of the Surgical Services, including the specialties of surgery, dates from that time. Formal training programs in surgery followed shortly thereafter during the 1920s.

The contribution of the hospital and its surgical staff, including its flamboyant chiefs of service, to the care of patients and to the development of surgery are the subject of this book.

CHAPTER I

THE BRUNN–RIXFORD–ELOESSER YEARS: 1915–1945

In 1915, the new San Francisco General Hospital opened located between the Mission District and Potrero Hill. It was appropriately referred to as the *Renaissance Hospital*, as it was solidly built of brick in pavilion style with all the fancy accoutrements of the bricklayer's art.

The Administration Building, centered between four towers that housed



patients' wards, was three stories high. The first floor contained the administrative offices and the telephone exchange and switchboard. In addition there was a large room for the visiting staff, which was also available as a committee meeting room. The upper two floors were devoted to the use of the residents and interns. They contained a library and a billiard room in addition to the physicians' quarters and communal bathrooms.

The Receiving Building on the north end of the complex facing 22nd Street was four stories high. The first floor contained the Emergency Service—Mission Emergency—which was moved to this site from a separate building a block away and which, although administratively separate, was incorporated physically into the new hospital. This emergency room (ER) included procedure rooms, separate observation wards for men and women, and eight isolation rooms. The first floor also included an outpatient clinic, Social Service, and a dental clinic.

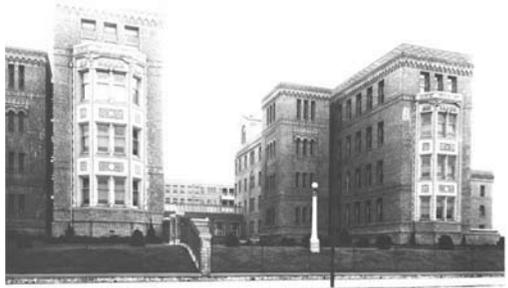
The second floor contained the surgical pavilion. Besides standard operating rooms, the surgical pavilion included two large amphitheatres (east and west), each with seating accommodations for 50 students. On this floor were the xray department, the eye and ear, nose, and throat and the urological examination rooms, as well as a recovery room.

The third floor was occupied by the amphitheater, which had seating accommodations for 200 people, and small laboratories on each side—one for

each of the two medical schools. The fourth floor contained the extension of the amphitheater as well as several offices.

The hydrotherapy department was located in the basement. At that time it was described as “second to none in San Francisco.” It was equipped with dressing and lounging rooms and douche, steam, and irrigation rooms. There was also a pool and a “mechanical apparatus” department.

The four main ward buildings were initially four stories high. Each building had four 29-bed wards, a roof garden with a penthouse, and a basement. There were 25 beds in the open ward, two isolation rooms with two beds each, a solarium, a treatment room, and a kitchen. A special



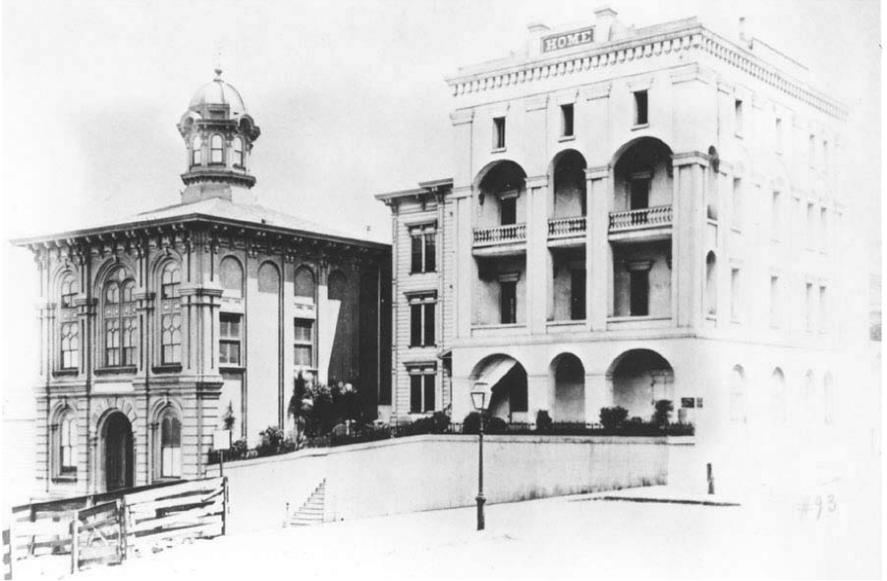
feature was the sanitary tower on the middle north side of each ward, which contained the toilets, baths, wash basins, a utility station, and a laundry chute. Ultimately the roof garden was converted into an additional, fifth, floor.

A separate pathology building was constructed on 22nd Street, just east of the Receiving Building. The first floor contained the autopsy amphitheater, ice boxes for the morgue, and an animal research lab. The second floor contained the pathology laboratories and offices. The third floor contained Health Department laboratories.

An isolation building of three stories with 120 isolation cubicles occupied the central east area. Several years after completion of the main hospital, a 500-bed tuberculosis building was completed on the southeast corner of the property, fronting on 23rd Street. The first year the hospital was open, the annual expenditure was \$333,000. The State of California subsidized 85 tuberculosis patients at \$3.00 per week.

HISTORY

The first true San Francisco City and County Hospital was established in 1857 in a building originally constructed as a school on the north side of Telegraph Hill, in the North Beach area. **Dr. Hugh H. Toland** built his medical school next door in 1864 and obtained permission from the City and County to educate his medical students there in 1865.



Left Toland Medical School, Right County Hospital

Hugh Toland arrived in San Francisco in 1852. He had been a successful physician in South Carolina, but left for California to search for gold. He found gold mining too tough and retired into the easier business of doctoring. Within a few years, he was making the unbelievable sum of \$40,000 a year, the major basis of which was his large mail-order business and pharmacy. Using Wells Fargo as an intermediary, he diagnosed and prescribed by letter for countless people isolated in the remotest areas of California and Nevada. His chief remedies were kept behind the counter of his drugstore in two barrels, which were labeled anti-scrof (tuberculosis) and anti-syph (syphilis). Upon these two barrels were laid the financial foundations of the future medical departments of the University of California

When the hospital exceeded its capacity, it was time to look for another site. Toland fought to have the City build on the original site or in the immediate vicinity. Unfortunately, Dr. R. Beverly Cole—Toland's antagonist in a notorious dispute—was successful in ensuring that the hospital was located as far away as possible, out in the sand dunes south of the City on what was to become Potrero Avenue. The antagonism between the two men was the result of a difference of opinion regarding management of the wound of a crusading newspaper publisher, James King. In 1856, King was shot in the left upper chest by a corrupt politician, James Casey. A group of prominent physicians led by Toland vied to take medical charge. The wound was explored with the bare fingers of the group of consultants and, in a cacophony of divided opinion, Toland inserted a sponge into the bullet tract to tamponade the bleeding. Almost immediately, cries of malpractice were initiated by Beverly Cole, who had been a close friend

of the newspaperman. Cole, who was in his twenties at the time, believed he had been humiliated by the 50-year-old Toland during the discussion at King's bedside. The wound putrefied and King died. At his jury trial for malpractice, Toland forcefully argued that the death resulted from subclavian vein phlebitis and shock in a man with obviously poor resistance. The jury returned a verdict of no malpractice. In a strange twist of fate, Cole later became Dean and President of Toland Medical School and helped to lead its transfer to the University of California (UC) in 1875.

The initial hospital, constructed on the Potrero site in 1872, was a clapboard hospital, cheaply built and designed to be replaced within a few decades. It lasted until a second plague epidemic in 1908, when the rats in the hospital became infected with the disease and the hospital was abruptly burnt down. It was replaced by the magnificent new structure in 1915. The clapboard hospital had been shared by six medical schools, but only Stanford and the UC Medical Schools survived the 1906 earthquake, the 1908 fire, and the Flexner commission, which was setting standards for medical schools. From that point until 1960, hospital services were shared between the two medical schools, UC and Stanford.



CHIEFS OF SERVICE

There were four chiefs of the Surgical Services from 1915 until 1945. For the UC Service there was Harold Brunn, who was appointed chief of the UC Service in 1910, where he served until he retired in 1942. Horace McCorkle briefly succeeded him as chief. McCorkle served from 1942-1945, when he in turn was succeeded as chief by Leon Goldman. For the Stanford Service, Emmet Rixford was appointed chief in 1905. He retired in 1930 and was succeeded by Leo Eloesser, who remained chief of the Stanford Service until 1946, when he was succeeded by Carl Mathewson.



UC Medical School 1900

All these men were paid, at best, a small stipend by the hospital and by the Medical School for their supervision of patient care and for teaching medical students. All supported themselves by their private practices. Brunn worked chiefly at Mt. Zion Hospital, Rixford at Stanford, Eloesser at St. Luke's and French Hospitals, and McCorkle at Franklin Hospital, which was later called Ralph K. Davies Medical Center.

Harold Brunn

Born in 1874, Harold Brunn was raised in San Bernardino, California. He obtained his M.D. degree from the University of Pennsylvania in 1895. He then elected to study in Germany. To young Americans, Germany was a fabulous land of medical progress and accomplishments. His year of European travel took him to Breslau, where Mikulicz and Wölfler, the latter a pupil of the great Billroth, were pioneering in gastric surgery. He then went to Leipzig where Volkmann had just performed the first excision for cancer of the rectum. He also had the chance to visit Trendelenburg's clinic and observe the rapidly expanding discipline of pathology.



At the completion of his year in Germany, he returned to California and elected to set up surgical practice in San Francisco as the junior associate of Douglas McMonigle. McMonigle had established himself professionally in gynecological surgery. He had established a Women's Hospital and helped to develop surgery at Children's Hospital

Private practice did not entirely satisfy Brunn. Before the end of 1898, he had volunteered to teach pathology at Dr. Toland's Medical School, now the University of California.

Brunn was a robust, hearty, stout, brilliant fellow with a fabulous memory who dominated any meeting he attended. At social affairs he had an inexhaustible fund of dirty stories and a hearty belly laugh. Dr. Leo Eloesser described Dr. Brunn as "a kindly, jolly man, better as a surgeon, organizer, and administrator than as a teacher."

One of Brunn's early acquaintances in San Francisco was Thomas Huntington, a man of culture, vigorous will, and striking personality. Huntington performed an operation using the Listerian method for the first time in California. Initially, he struggled against his frontier colleagues, who offered vigorous opposition to this "new-fangled method." Late in the 19th century, after winning his fight and gaining recognition and acceptance, he was made professor of Surgery at the University of California. Huntington chose Brunn as his assistant, and this appointment launched the young surgeon on a distinguished career as a university clinician, teacher, and researcher.

There was a change in the organization of the University of California Department of Surgery following the earthquake in 1906. Wallace Terry became chief of the Department and professor of Surgery, and he separated the service of the University Hospital from that of San Francisco Hospital—which by this time had become geographically separated. The University then appointed Harold Brunn associate clinical professor and gave him full authority for administration, patient care, and surgical teaching on the UC Surgical Service,

San Francisco (County) Hospital. The Civic authorities at that time could not be induced to provide laboratory services, so—at his own expense and some meager aid from the University—Brunn established a bacteriology and pathology laboratory.

Then, in 1908, the plague presented a second time. Its presence within the hospital's rat population was verified by Brunn's laboratory. There was no choice but to close and burn the hospital.

While the new San Francisco Hospital was being designed and built, the hospital was temporarily relocated to the old Ingleside Racetrack. There, under adverse circumstances, the Surgical Service carried out its mission in the horse stables and under the grandstand until the new hospital could be completed.

The magnificent new hospital was opened in 1915 and for the first time provided adequate physical facilities for surgery to develop. Brunn was able to expand his interest in thoracic surgery, which he had acquired in Germany. By this time, the bronchoscope had become available and had proved to be a valuable instrument, facilitating the diagnosis of bronchiectasis, early cancers, and bronchial tumors. Tuberculosis care had been provided a separate building in the new hospital complex, and this disease provided major challenges for the thoracic surgeon.

Recognizing his efforts in the field and because of his services to their family, the Roos family endowed the J.J. and Nettie Mack Foundation at the University of California Medical School. They directed that it should be devoted to the study of cancer and chest surgery under the guidance of Dr. Brunn.

Of the 34 major contributions to the surgical literature in Brunn's bibliography, 20 are concerned with intrathoracic pathology or thoracic operative procedures. The first appeared in 1926. According to Eloesser, Brunn was the first surgeon in the United States (U.S.) to carry out definitive lobectomy. Before the introduction of Brunn's operation, lobes were resected in stages, being tied off with mass ligatures, separated from the rest of the chest by gauze packs, and allowed to slough. Brunn was the first to resect the lobe, tie the vessels, sew up the bronchus, and close the chest. He used this procedure for bronchiectasis and cancer. He carried out valuable studies on benign bronchial tumors and recognized bronchial adenoma as a clinical entity.

At the time of his retirement, Brunn's many contributions to thoracic surgery were acknowledged. The dedication in the book presented to him on his retirement read, "Today a poor young girl with bronchiectasis, becoming a reeking stench, an offense to her fellows, driven to despair, her life an abiding horror, can find relief and redemption. A man with an abscess of the lung or another with a gangrenous pulmonary patch, can be restored from the distressful, disabling disease, for it is possible for the thoracic surgeon to remove a lobe, half a lung, or, if need be, a whole lung. A pneumothorax done, intrapleural adhesions cut, a lung collapsed and more often than not the patients' return to vigor, to earning power; their rightful place in society is assured. This was due to the Thoracic Clinic of the University of California under Harold Brunn."

In regard to teaching, Brunn devoted much time, ingenuity, and effort in setting up clinical demonstrations and schedules that increased the effectiveness of surgical teaching. In combination with Leroy Briggs, the Chief

of Medicine, he established San Francisco Hospital as an outstanding educational experience for UC medical students.

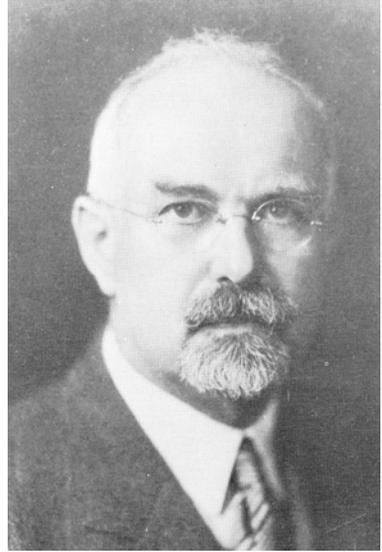
He had a tremendous sense of humor and enjoyed telling bawdy jokes. He liked to host his junior colleagues and housestaff at the St. Francis Yacht Club, where he entertained with personal anecdotes, clinical asides, and the latest jokes and stories. At the time he retired in 1942, at age 65, his staff presented him with a book dedicated to him. It contained, in addition to his biography and personal tributes, clinical papers they had written especially for this publication. They acknowledged “his personal enthusiasm, his amazing energy, his lust for life, and his willingness to serve his fellow men as physician, teacher, and friend”

Emmet Rixford

Emmet Rixford was born in 1865 in Bedford, a small town in Canada near the Vermont border. His father was a Vermonter, his mother a Canadian. When he was two years old, the family set out for California, taking a side wheeler ship to Nicaragua. They crossed overland to the Pacific, and from there traveled to California by ship. His father secured a position with the San Francisco Bulletin and later worked for the State Department in horticulture, where he was directly responsible for the introduction of the Smyrna fig and several hardy varieties of citrus fruit to California.

Rixford attended San Francisco public schools and entered the University of California as a student of engineering. He was graduated in 1887. He said that his engineering studies served him in good stead—they helped him understand the mechanism of fractures, a subject in which he had a major clinical interest. After graduating in engineering, he received his M.D. degree from Cooper Medical College in 1891—Cooper became Stanford Medical School in 1908. In 1892, soon after obtaining his medical degree, Rixford left for the East Coast, where he spent a year at the New York Hospital for Ruptured and Crippled under the elder Dr. Coley. During the summer of 1892 he worked at Johns Hopkins in Welch’s pathology laboratory.

In 1893, Rixford returned to San Francisco and opened a surgical practice. He was appointed adjunct professor of Surgery at Cooper Medical College in 1893 and professor in 1898.



Stanford Medical School

Initially, he served as an assistant to Levi Cooper Lane, the founder of, and chief surgeon for, Cooper Medical College. Lane, although a brilliant technical surgeon, never accepted the principle of asepsis. This was something Rixford adopted on his own, perhaps as the result of the influence of William McEwen of Glasgow, who came to San Francisco in 1896 to give the first of the annual Lane lectures.

When Lane retired in 1905, his two protégés, Emmet Rixford and Stanley Stillman, were appointed joint chiefs of Surgery. Rixford elected to take the City/County Hospital as his main administrative responsibility, while Stillman took responsibility for Lane Hospital, which was attached to Cooper Medical College. Teaching responsibilities were also divided between them. When Cooper Medical College became part of Stanford University in 1908, Rixford continued in the same role as a Stanford professor of Surgery.

Rixford's Thursday morning rounds, or "colloquia," were attended by numerous surgeons in addition to his students, whom he both instructed and entertained at the bedside. A major operation would be scheduled for him in the surgery amphitheater. He would gown and put on a special mask with an apron-like attachment, which was then tucked in at the waist of his ample belly to cover his beard. In deference to asepsis, he would rinse his hands and arms in a solution of bichloride of mercury and then don his sterile gloves.



Typical Open Ward in this Era

He was resourceful and quick in operating and decisive in judgment. He was abundantly laden with information, and he had an encyclopedic mind. He was a brilliant teacher at the operating table, where he would expose and discourse on the anatomy. He always had a large blackboard present, which he would use to further illustrate the procedure he was doing. The chalk was secured in a sterile towel, but sometimes, in his artistic enthusiasm, he would inadvertently contaminate himself. While his lectures were often described as brilliant, they were usually over the heads of his students and were best appreciated by his surgical house officers or fellow surgeons.

His activity as a surgeon bridged the period between antiseptic and aseptic surgery, between routine drainage and non-drainage of wounds. His facile mind quickly accepted and promoted developments in surgery. Early on, he insisted on a bacteriologic and pathologic study of his operative specimens, and he was himself an excellent surgical pathologist. He was one of the first surgeons on the West Coast to use xray, and with it he was able to locate a foreign body in the brain and successfully remove it.

His research into fractures and dislocations led to his writing several papers on the subject, including papers on the production and treatment of greenstick, buckling, torsion, and flexion fractures. His first paper, in 1894, dealt with the symptoms and diagnosis of tuberculosis of the joints. Other papers

covered the gamut of general surgery and included the treatment of hernia, goiter, pancreatitis, renal stone, gallstones, and cancer of many sites. He sent some interesting pathological material to Drs. Welch and Gilchrist at Johns Hopkins Hospital, which led to the recognition of a new disease, coccidiomycosis (Rixford and Gilchrist Johns Hopkins Hospital Reports 1896).

One of his great accomplishments was the founding and development of the Lane Medical Library of Stanford Medical School. He personally solicited books and journals, including duplicates he found in the Surgeon General's Library and 24,000 volumes he obtained when the New York Academy and New York Hospital consolidated their libraries.

Rixford was president of the American Surgical Association, founder and president of the Pacific Coast Surgical Association, and twice president of the San Francisco County Medical Society. In 1928, at the request of Harvey Cushing, he served as surgeon and chief pro tem of the Peter Bent Brigham Hospital in Boston.

He had many interests and hobbies outside of medicine. He was a naturalist and explored the Sierra Nevada Mountains. He climbed their peaks, and Mount Rixford in the Kearsarge range is named after him. His reputation as an authority on rose culture was nationwide. He was an authority on land snails and possessed one of the country's most complete collections. He was skipper of the sloop Annie, and Commodore of the fleet in San Francisco Bay.

Rixford died in Boston in 1938 following an operation for cancer of the bladder.

Leo Eloesser

This remarkable man with global interests was born in San Francisco in 1881 of German immigrant parents. The family was wealthy from manufacturing "Can't Bust 'Em" Overalls. His father was a pianist, and Eloesser and his three siblings were encouraged to study music. Upon graduation from Urban School in San Francisco, Eloesser was too young to be admitted to the University of California, so he studied music, which he wanted to pursue as a career. But a family friend, ophthalmologist Adolph Barkan, convinced him that he should study medicine. When Eloesser was subsequently admitted to UC, he failed most of his courses, and only with the intervention of his father was he given a chance to continue. At that point, he became a serious student and was graduated in 1900.



Dr. Barkan insisted that Eloesser should study medicine in Germany at the University of Heidelberg where Barkan knew the Surgery professor, Vincenz Czerny. Eloesser was enthralled with the German system of teaching because there was academic freedom, and no one cared whether the students attended classes or not. It was only necessary that the student pass a series of examinations. This allowed him freedom to pursue his interest in music in parallel.

On completing his studies and being awarded his degree in 1907, he became a voluntary assistant to Czerny. During this period he spent six months in the pathology laboratory, gave anesthetics, and wrote a treatise on pancreatic diseases. He spent several years in Germany and, during this period, visited the Clinics of Mikulicz and Sauerbruch. Following this experience, he spent six months in England and worked in Sir Almoth Wright's laboratory in St. Mary's Hospital.

In 1909, he returned to San Francisco and, because it was six months before he could qualify for licensure, he volunteered as an intern on the UC Service at San Francisco City and County Hospital. At that time, the hospital was temporarily located at the Ingleside Racetrack while the new County Hospital was being designed and built.

After a six-month internship, he rented an office and began private practice. He disclaimed any immediate success saying, "I spent more and more time at the hospital and less and less at the blank, patient-less office. It was ten years before I collected sufficient fees to pay the office rent." His colleagues said that the reason he earned so little was a consequence of charging so few of the patients he treated, and charging so little to those he did. Finally, in January 1914, he told his father that he no longer needed monthly checks. "I have \$500 in the bank and shall get on alone".

He stayed on the UC surgical staff, whose chief was Wallace Terry, while he set up his private practice. In 1912, Emmet Rixford, chief of the Stanford service, offered him a position and Terry advised him to take it because Terry considered the status of the UC Medical School tenuous. The UC Regents felt that it represented a costly drain on the rest of the University and were considering closing it.

During his initial period at Stanford, Eloesser did a great deal of experimental work on animals. He was also a courageous surgeon, for—having been exposed to the German system—he was willing to undertake procedures that other surgeons would not. Some of these operations were bold and risky, but they were often successful. His operations were noted for his use of the smelly, smoky, Percy cautery.

Eloesser was of slight build and barely over five feet tall. He had an intense look, a penetrating gaze that could skewer any mortal, and an extremely caustic tongue. He drove himself hard and expected others to follow his example. Woe be it to the verbose student as he made rounds, and woe to the resident who tried to bluff his way through a history or diagnosis. A retort of "Bullshit" could be his lot. Because of his diminutive size, Eloesser usually operated standing on a stool. Having been grounded in the fundamental branches of medicine and Germanic teaching, he knew pathology well and was able to examine his own microscopic sections, which he apparently did with great accuracy.

Eloesser was an adequate, but not a brilliant, technician. His fame came primarily from his diagnostic acumen. His colleague in medicine, Harold Hill, found that he was the most reliable and



Eloesser at Bedside with Dr. Hill

accurate diagnostic consultant he could find in the city. His capability as a diagnostician was attributed to his attention to detail, his broad acquaintance with the world literature, his clear logic, and his intelligent deduction. His colleagues believed that the splendid outcome of his treatment was based not only upon excellent preoperative evaluation and preparation and proper operative management, but also upon the best and most conscientious postoperative care possible. If a postmortem examination could be obtained, he always attended the autopsy or did the autopsy himself.

As a teacher, Eloesser was described as unexcelled. He emphasized analysis over rote memorization. He emphasized using the mind critically and analytically to discard outworn, untrustworthy, and unsubstantiated opinions; and he held that the spoken and written word was not necessarily true because it was “authoritative.” He said, “I think that we all agree, in theory if not in practice, that trying to impart facts to students is futile, especially trying to impart them by word of mouth. Anyone in search of facts can find facts out by himself if he wants to.”

Eloesser used the Socratic method to prod a student to make logical deductions. “Technique? Ha! That is an easy thing to teach, a thing that should be taught, not to undergraduates of course, but to aspiring surgeons. Technique can be taught and it can be learned; learned by all the four avenues by which we learn any manual activity—by listening, watching, practicing, and doing. Some men’s hands will surpass their heads; for others, intellect will prevail over some clumsiness. It is our business as guides and teachers to recognize our pupils’ fortes; to do what we can to curb the dexterous avidity of the technically agile, and to stimulate the clumsy to practice their five finger exercises.”

Eloesser was insistent that his students and trainees understand clearly that to know a patient’s symptoms, the abnormal findings on physical examination, the correct diagnosis, and even the treatment, was not enough. “Over and beyond this, they must try to unravel the puzzle—what is wrong anatomically; what was functioning improperly? What in essence is at the basis of the disordered state? If death should come, why?”

He was a brilliant scientific writer and began publishing while he was still in training. His observations about the management of German war casualties were published in the *Journal of the American Medical Association* (JAMA). He published a total of 92 articles—about half of them on chest surgery. He also wrote papers on amputations, bone grafts, aneurysms, peptic ulcer surgery, and anesthesia.

His patients appreciated his care and loved him. His thorough evaluations assured them that no detail would be left to chance. He established compassionate, understanding, personal relationships with them. His patients could rest assured that if they were worrisomely ill or might profit from a visit, he could be counted on to be there at any hour of the day or night.

An example of his care is a convict who was transferred to the County for treatment. “It was a long, hard, smoky operation which ended about 1 PM.” Eloesser then demanded that special nurses be obtained for the patient around the clock for the first day or so. He was told that this was a Saturday and that Social Service had closed at noon. There is no way to get approval for special nurses. “Get them, I’ll pay for them myself,” he thundered.

As vouched for by Carl Mathewson, his junior associate at the County, “Leo was a workhorse. He had no concept of time, day or night.” At the time of

his peak involvement at the County, he made staff and then student rounds from 8 to 12 on Wednesdays. Wednesday afternoons he spent in the pathology laboratory. He operated at the County Hospital three days a week and very often returned late at night to see how his patients were doing. By the 1930s, he also had a busy private practice. He operated on private patients at French, St. Luke's, Stanford, and St. Joseph's Hospitals and at the Dante Sanatorium. He saw patients in his office until midnight, never turning anyone away who wanted to see him. He worked Monday through Saturday.

He never married, but he was never without women friends. In the 1930s he drove a large open convertible and was always accompanied by his dog, a German dachshund. His primary luxuries and relaxation were his boat and his viola. He owned a 28-foot ketch, the *Flirt*, and sailed regularly with a companion, often female.

He owned a flat on Leavenworth Street. Every Wednesday evening, a small group from the San Francisco Symphony would join him in his flat to play chamber music together. From time to time, this group was joined by distinguished visitors such as Pierre Monteux, Fritz Kreisler, and Yehudi Menuhin.

He had a gift for languages, mastering Greek, Russian, French, Polish, Hungarian, Spanish, Italian, and Chinese. He once spent seven months teaching at the University of Tokyo Medical School in Japanese, having picked up the language from a dictionary and conversations with passengers on the ship going over.

With the outbreak of World War I, he contacted his old chief, Professor Czerny, in Germany, and was put in charge of a surgical division of a large German hospital. There he published papers on the use of blood transfusion in war surgery and on the management of gas infections. When the United States' entrance into the War was imminent, he returned to America. He tried to enter the U.S. Army, expecting his experience with casualty management would be welcomed. but his German connections resulted in denial. However, he was asked to supervise a large orthopedic and rehabilitation ward at Letterman Army General Hospital in San Francisco. His ward was filled with amputees, and when the Army dragged its feet about setting up a prosthesis center, Eloesser went to Mare Island, borrowed machinery from the Navy, and set up an artificial limb factory. This factory then produced the highly successful "Letterman leg." He also pioneered in the early fitting of these prostheses.

Even while working at Letterman, Eloesser went to San Francisco County at night, where he saw many patients with empyema and other chest diseases, which were now attracting his interest. At the end of the War, he returned to his position as assistant chief of Stanford's County Surgical Service under Rixford and reopened his private office. The influenza epidemic of 1919 resulted in a flood of patients with lung abscess, bronchiectasis, and empyema, which further stimulated his interest in thoracic surgery. In 1926, he brought in, as his associate in private practice, his former house officer in surgery, William Lister "Lefty" Rogers.

Eloesser's clinical interests were general. He always had a major interest in fractures, which were then the province of the general surgeon. However, as his private thoracic practice grew in volume, so did his research interests in thoracic surgery. He became interested in tuberculosis and its treatment. He devised the flap that bears his name, which he used for chronic

drainage of empyema. He was very proficient in bronchoscopy, a technique he had learned in Germany, and he became interested in bronchial pathology and bronchial stenosis in particular.

In 1934, he visited Russia and installed a ward for thoracic surgery in the First University Surgery Clinic in Moscow. In 1937, after serving as President of the American Association for Thoracic Surgery, he went to Spain and served the Loyalist side in the Spanish Civil War for eight months. He took with him his viola, an ambulance, and a staff of physicians and nurses he had recruited. He set up a military hospital and developed a blood bank service. While in Spain, he published a paper on the management of compound fractures. He regularly sent home requests for his El Toro[®] Mexican cigarettes, Ghirardelli[®] chocolates, and Hills Bros.[®] Coffee, to all of which he was addicted.

He had many friends among artists and musicians; these included the noted sculptor Ralph Stackpole and the Mexican muralist, Diego Rivera. Rivera's wife, Frida Kahlo, painted the picture of him that today hangs in the lobby at San Francisco General Hospital.

Eloesser returned from Spain in 1938 and resumed his duties at the City and County Hospital and his private practice. In 1945, he joined the United Nations Relief Organization, gave up his work in San Francisco, and went to China. As no one thought to acknowledge his retirement in the postwar ferment, he gave a retirement party for himself. His friend sculptor Ralph Stackpole had earlier immortalized Eloesser, peering through a microscope at the base of Stackpole's giant statue for the American Stock Exchange, *Man and His Inventions*. Stackpole sculpted another statue, this time portraying Eloesser sigmoidoscopying a horse, which was the centerpiece of the dinner. This remained for many years in the hospital's pathology laboratory before it disappeared. "It was a jolly goodbye party."

Once in China, Eloesser became disgusted with the corrupt regime of Chiang Kai-shek and quietly made his way to Mao's remote communist stronghold. There, it was obvious to him that Western He worked with the Communists for four years, living like a peasant and teaching hygiene, sanitation, and midwifery to the "barefoot doctors." He served at Bethune Medical School and added Chinese to his repertoire of languages. He published, in Chinese, a manual for rural midwives titled *Pregnancy, Childbirth and the Newborn*. It was subsequently revised and published in Spanish, English, and Portuguese. The latest edition appeared in 1976.

Eloesser returned from China in 1950 and continued to work with UNICEF. He became interested in health care in third world countries. In San Francisco, at age 70, he met his companion for the rest of his life, Joyce Campbell. In the McCarthy anti-Communist era, he felt persecuted and unappreciated; and in 1953, he retired to the isolated small town of Tacambaro, Mexico. There he set up a small clinic to treat the disadvantaged in the area. His fees, which were modest, were given to the town clerk at the end of the year and were used to give Christmas presents to the prisoners in the County jail.

Three months before his death, Eloesser gained Mexican citizenship and was awarded the Presidential Medal for his work with the poor of that country. He saw patients until he died of a massive coronary occlusion on October 4, 1976 at 95 years of age.

Horace McCorkle

Horace McCorkle, the oldest of three boys, was born in 1905 and raised in Comfort, Texas. The family later moved to San Bernardino, where he attended high school. He took his undergraduate work and his medical school training at UC Berkeley, obtaining his M.D. in 1934. He interned in surgery at UC from 1933-1934, and then entered his residency, completing it in 1939.

When McCorkle was chief resident, he met and was enamored with an emergency room nurse, Marion Fisher. They married and had five children—four boys and one girl.

McCorkle—“Mac” to his residents—stayed on the UC staff following completion of his residency in 1939. When Brunn retired in 1942, World War II was on, and Mac took over temporarily as chief of service at the County. During the War years he was assisted by two of the recent graduates of the program, Henry Silvani and Harry Peters.

McCorkle was a very private person—acerbic, quite stern and somewhat autocratic, honorable, hard working and very precise. He was friendly but not effusive, and one needed to know him well before there was much social exchange.

He was deliberate and somewhat slow in surgery, although fast as William Brock said, “When McCorkle operated, you couldn’t see any blood. There was little conversation, everything was neat, and his technique was superb. His radical mastectomies and thyroidectomies were right out of the anatomy book. I think Mac was my best teacher of surgical technique. Because his technique was so gentle, local anesthesia could be used. He was a proponent of doing major upper abdominal cases under field block and local splanchnic nerve block. These include biliary operations, gastrectomies and others.”

Initially, McCorkle had a difficult time developing much of a private practice because of the poor economic times—and possibly part of the reason was also related to his reserved personality. When Howard C. Naffziger, the former Chair of Surgery, developed lymphoma, he selected Mac as his physician. Mac continued to care for Naffziger until he died.

TRAINING PROGRAMS

Postgraduate training was not a requirement for practice during this period, and most medical school graduates went straight into practice as “licensed physicians and surgeons.” Stanford Medical School was unique in requiring an internship—up until the 1960s, Stanford’s M.D. was deferred until the completion of internship. UC did not require such training, but most of the graduates enrolled in an internship. The most popular were the rotating internships of the type provided by San Francisco County Hospital. As opposed to the rotating internships at the County, the two Universities provided straight internships for those wishing further experience in surgery, medicine, obstetrics and gynecology (ob-gyn), pediatrics, or psychiatry.

By 1915, in addition to the rotating internships, house officer positions—not yet called residencies—had been added, four for each University, one each in medicine, surgery, ob-gyn and pediatrics-infectious disease.

There was one *resident* physician position. That physician served as the administrator for the interns and house officers. During this era, all the residents were men. The resident was selected from one of the two surgical house

officers. During odd years, he was a UC man, and during even years, a Stanford man. There was one notorious temporary exception when Eloesser intervened with the director of Public Health and Carl Mathewson, a Stanford house officer, appointed in a UC year. The resulting brouhaha escalated as far as the governor's office, so that, after a few weeks, Mathewson was forced to give up his post and go to Germany for further training.

Mathewson had learned of his out-of-turn appointment when he read about it in the morning newspaper. That same morning he received a call from the switchboard to let him know that there were three people waiting to see him in the hospital lobby.

"The first one was the pharmacist from the drug store across the street, who offered me \$250 cash for my prescription book. This was during prohibition when every doctor was issued a prescription book in which he could order alcoholic beverages for his patients. Pharmacists naturally were interested because they could sell liquor over the counter, provided that they had a prescription to cover it.

"The second individual was a man who was apparently a pimp. He was interested in the prostitutes who were confined to Ward M at the County Hospital, under arrest until their vaginal smears and blood studies were negative for disease. The pimp offered me \$50 for each girl I would certify as negative.

"The third person was from an undertaking parlor in the Mission District. He offered me \$50 for every death that I would refer to his Mortuary.

"These individuals were astounded when I adamantly denied their wishes and told them to get out of my sight and out of the Hospital. They argued that I was going against established custom."

In, 1926 UC had house officers in medicine, tuberculosis-medicine, surgery, and ob-gyn, and 15 interns. Stanford had house officers in medicine, surgery, orthopedics, ob-gyn, and pediatrics-infectious disease, and 16 rotating interns. By 1930, UC had seven house officers and 18 interns, while Stanford had one senior house officer, five junior house officers, and 19 interns.

In 1933, both UC and Stanford were given a chief surgery resident position, ending the potential conflict for the one yearly position. That same year, both Universities formalized their surgical training and developed a progressive residency system leading to a chief residency after three to four postgraduate years.

At UC, a surgical residency training program similar to that started by Halsted at Johns Hopkins had been introduced. Howard Naffziger, professor and appointed chair of Surgery at UC in 1929, had recruited H. Glenn Bell to run the General Surgery program. Bell had trained at the University of Cincinnati, where one of Halsted's trainees, Mont Reid, had introduced a Johns Hopkins-type program. Bell's new residency combined the University Hospital, San Francisco County Hospital, and Franklin Hospital. Franklin Hospital, now called Ralph K. Davies Medical Center, was the Hospital then used by the UC faculty for their private patients. The UC positions at the County now included a chief resident in surgery, an associate chief resident, and two surgical house officers. The 20 rotating County interns were shared by all services.

As it was initially set up, the UC program admitted two junior residents each year. During the second year, one of the two was sent to Cincinnati for a year and the other to County as senior house officer. The latter became chief resident at the County. The one in Cincinnati came back to be chief resident at

UC. The County chief resident was paid \$39 a month and was in charge of all the residents, not just those in surgery. It was not until after World War II that chief resident positions were granted for specialty services other than surgery.

Emile Holman, William Halsted's last residency trainee, had been appointed chair of Surgery at Stanford in 1926, relieving Stanley Stillman, who had retired. He had recruited an associate from Johns Hopkins who was to succeed Rixford when the latter retired in 1930. However, Eloesser used his political influence to bar the door to County Hospital and to get himself appointed Chief. An estrangement ensued between Eloesser and Holman, and each started and maintained a separate independent residency. Eloesser instituted his independent program in 1933 in parallel with that of UC. His positions reflected those of UC, so that he had a three-year training program in surgery after one year of internship; internships remained independent of residencies until the late 1960s.

During this period, interns were given room and board, were provided with uniforms and laundry service, and were expected to live in the hospital. Married applicants for internship were not accepted for training. Few, if any, interns could afford a car. When they wanted to go someplace, they flagged an ambulance.

Internship hours were long and the work was hard. Although theoretically, always on call, interns would sign out to one another for a few hours during the week if they thought they could get away with it. It was easier to leave the hospital on weekends, when the administrators were absent. However, a major scandal developed in 1924, when the hospital was hit with a flood of emergencies during the UC-Stanford Big Game and only one intern was available for each University service. For years afterward, attendance was taken weekends to be sure that there was at least one intern available on all specialty services.

Decisions regarding the need for hospital admission were nominally made after communication with a house officer or resident. However, the interns in the Emergency Department made most of the decisions once the academic year was in its third or fourth month, after all interns had been "baptized". The decision to admit or discharge patients to a clinic was made with safeguards for patients. The intern recipient of the admission was not loath to confront his peer in the emergency room directly regarding his disdain for his colleague's competence—and an inappropriately discharged patient might be brought right back by ambulance or referred back from an outpatient clinic with a critical comment. If the worst happened and a catastrophe should occur after a patient's discharge, the press was ready with scandalous headlines.

The regular personnel on a surgical ward were one head nurse and one orderly during the day. Before the San Francisco General Hospital (SFGH) nursing school closed in 1932, there were student nurses on all the wards. They assisted the chief nurse, and a senior nursing student covered one or more wards at night.

The interns did all the "scut work", including changing dressings, starting intravenous lines (IVs) or clysis solutions (fluid therapy was commonly given subcutaneously rather than intravenously—clysis). They set up the nasogastric suction, by draining water from one gallon glass bottle into another, creating suction for the nasogastric tube. Electrical suction machines did not exist.

There was no such thing as an intensive care unit (ICU). Critically ill patients who were perceived as salvageable by the head nurse had their beds located next to the nursing station. Those dying and perceived as unsalvageable, or those with overt infectious illness, were placed in the side rooms. Supplemental oxygen was administered by tent, which was set up by the intern. Blood gas assessment was not possible, so that cyanosis or extreme respiratory difficulty was necessary before the need for oxygen was recognized.

The interns did all transporting of patients. There was no such thing as portable xray machines, so the most common indication for transport, was the need to take the patient to the Radiology Department. The interns did all the initial workup of the patients. A detailed medical history and a physical were the primary basis for diagnosis, and woe be it for the intern who left out cogent details. As most patients had been in the hospital before, the first part of the evaluation consisted of obtaining the patient's old chart from the basement "dungeon", where the Record Room was located, and summarizing all previous admissions.



Upon completion of the medical history and physical, the next step was the laboratory work. All blood specimens were drawn by the interns. All patients were tested for hemoglobin, white blood cell count, and a differential white blood cell count based on the blood smear. Urinalysis followed, which included tests for glucose, protein, specific gravity, and microscopic examination of the urine sediment. If the patient had an infection, then a Gram stain of the drainage was an essential part of the laboratory analysis. If the patient had diarrhea or loose stools, a stool exam for ova and parasites was essential, as well as a description of the stool. Because antibiotics did not yet exist, the primary reason for bacterial studies was to identify pathogens that required isolation procedures. These studies included smears for intracellular diplococci, which were diagnostic of gonorrhea, black light studies for the spirochete of syphilis, and acid fast smears for tuberculosis. Needless to say, these tests were time consuming. Fortunately, there was usually a back-up technician who would verify questionable smears and conduct appropriate cultures. However, this service was available only five days a week during the daylight hours. Nights and weekends the interns were on their own, backed up only by their residents.

EMERGENCY ROOM & CLINICS

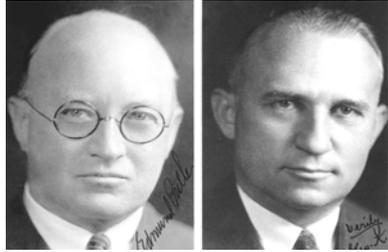
The source of hospital patients at the County included those admitted through Mission Emergency by ambulance or as walk-ins, those referred from the City's peripheral Emergency System, and those referred from the Stanford and UC Clinics.

The first emergency room had been located in the basement of the City Hall itself, but it had been destroyed in 1906 by the earthquake and fire. It was rebuilt as Central Emergency as part of the Municipal complex and served as headquarters for the City ambulance system. Until the mid 1930s, many major surgical procedures, including major amputations, were done there by the chief

of the Emergency Service. As the City developed, emergency facilities were built in the Harbor area and in Golden Gate Park.

Mission Emergency was established in 1909. Initially, it was located in a separate building at 23rd Street and Potrero. In the 1930s, Alemany Emergency was opened in the southwest portion of the City. Because of its proximity to the County Hospital, Mission Emergency was physically incorporated into the 1915 County Hospital building. As was true of the other emergency facilities, it remained separate administratively from the Hospital. During most of the period between World War I and World War II, it was run by two surgeons, Edmund Butler and George Rhoads.

First aid, treatment of cuts and lacerations, and medical and surgical triage were done in the emergency hospitals. Any citizen of San Francisco could walk into one of these facilities and be treated free of charge. However, if hospitalization was needed, indigent patients were transferred by ambulance to the County Hospital and private patients were referred to their local private hospital.



Butler and Rhoads

Central Emergency stopped doing any major surgical procedures by the mid 1930s, when it was apparent that the increasing medical sophistication of the County Hospital provided a much safer environment for surgical care. Safe surgical care was greatly improved when the blood bank opened in 1939.

Butler and Rhoads supervised Mission Emergency on alternate weeks. Edmund Butler, the Chief of the Emergency System, had a Stanford clinical appointment and took call during Stanford Emergency weeks. George Rhoads, his partner in private practice, had a UC appointment and covered the UC emergency weeks. Both surgeons would be notified of any case requiring emergency surgery, but—except for a particularly demanding case, especially one with political overtones—they would defer to the surgery resident for the operation itself.

In addition to the emergency room, which was a major source of patients, the UC and Stanford clinics were a common source of referrals. The City had opted not to open outpatient clinics at the County Hospital, as both Universities had clinics for the indigent. Both would admit the best teaching cases to their hospitals, but the University Hospitals were small and funds for hospital care of indigent patients were limited. The bulk of the patients needing hospitalization were referred to the corresponding County University Service. Thereafter, except for an urgent emergency case requiring, immediate surgical care, patients remained a ward of the University Service that first admitted them. It was not unusual for a busy intern to be found, late at night, in the bowels of the hospital where the Record Room was located, looking to see if a “crud admission” had had a previous admission to the opposite service. An occasional cry, “Eureka, he’s a Stanford patient!” could be heard on a busy UC night.

SURGERY

Surgical technique

Before the introduction of anesthesia, surgery, of necessity, had to be done quickly and was associated with what now would be considered gross technique. By the end of the Civil War, in 1865, most physicians in the U.S. had learned to use anesthesia, but surgical technique had changed little. While large blood vessels were tied, mass ligatures were used frequently, and the cautery was still used to facilitate hemostasis. Eloesser used the Percy cautery in his major cancer operations through the 1930s. This was an electrical cautery instrument originally devised for uterine work. It did not heat enough to char tissues, but it was thought to cook tissues sufficiently to destroy any malignant cells. For that reason, it was referred to as the “cold iron” method.

The reluctance to accept new techniques persisted in the 1920s. Complication rates, particularly those related to infections, were abysmally high. However, at Johns Hopkins Hospital, Halsted was demonstrating superior results when a meticulous, atraumatic technique was used. By the late 1920s and early 1930s, both UC and Stanford fell under the influence of the Halsted method. Emile Holman, who had trained with Halsted and assumed the Chair of Surgery at Stanford in 1926, was a rigid advocate. Glenn Bell, when he arrived in 1932 to assume responsibility for U.C.’s General Surgery program, instilled these concepts in his trainees, who included Leon Goldman and Horace McCorkle. Because the Stanford Surgery program at the County remained independent of, and somewhat isolated from, Holman’s influence, the Stanford surgeons’ technique at the County evolved more gradually toward Halstedian concepts, and was considered gross by the UC surgeons.

The Halstedian technique emphasized gentle handling of tissue; meticulous hemostasis, especially in the subcutaneous tissue; the use of fine silk sutures cut on the knot; closure of all dead space, including approximation of the peritoneum as a separate layer; and closure of the subcutaneous tissue. It included absolute bed rest, even for operations such as inguinal hernia, for which ten days of bed rest was the standard.

There were no antibiotics at this time. Wound infections were common and contaminated wounds, whether acquired in the hospital or the community, were routinely left open. A ruptured appendix with peritonitis was usually fatal. An inadvertent enterotomy was catastrophic. When a surgeon was working in potentially contaminated areas, the tragic results of infection were always paramount in the surgeon’s mind. When fever and systemic sepsis was manifest, the concept was, “pus somewhere, pus nowhere, look under the diaphragm,” followed by complicated maneuvers to drain the pus without contaminating the rest of the peritoneal cavity. The Clairmont anterior subcostal extra-peritoneal approach and the Ochsner posterior approach through the bed of the 12th rib were classic ways to drain perihepatic abscesses.

Hemolytic streptococcal infections, if not immediately fatal, often led to the long-term consequences



Typical Operating Room

of rheumatic fever and glomerulonephritis. Wound infections that “pussed out” had a favorable prognosis (usually staphylococcus), whereas those that had no pus or were associated with serous drainage were fatal (streptococcus, necrotizing anaerobic infections).

When the sulfa drugs became available in clinical use early in the 1940s, the literature was full of clinical studies of how to use them. Crystals were dumped into wounds. When there was peritonitis, crystals were spooned into the peritoneal cavity. The patients turned blue, their kidneys clogged with crystals, but their improvement was often dramatic and deaths from septic complications were significantly reduced.

Type of Surgery:

Before appendicitis was recognized as a clinical entity by Reginald Fitz in Boston in 1886, typhoid fever was thought to account for peri-ceccal abscesses, as ileal perforation was a common complication associated with typhoid fever. By the 1920s, the appendectomy was becoming a far too common operation. It was estimated that, in the 1930s, one person in five in the United States was having his or her appendix removed. The scandal of “chronic appendicitis” stimulated the institution of hospital tissue committees to review normal organs being removed.

A close second in terms of abdominal operations were salpingectomy and oophorectomy. Pelvic inflammatory disease was extremely common, and chronic tubal infections could only be cured by surgical removal. Gynecologists and general surgeons vied for the operation in this period. Repair of cervical lacerations (trachelorrhaphy) after childbirth was an accepted and a common procedure.

Hernias of all types were now being treated with surgery rather than trusses. A Dr. Rosberg, a volunteer surgeon on the Stanford Service, had the audacity to perform hernia repair on a patient under local anesthesia and then walk the patient from the operating room back to his ward bed. This so compromised the Halstedian principle of ten days of absolute bed rest that Rosberg was dropped from the staff.

The major operations in the 1930s were gastrectomy for cancer and ulcer disease, thyroidectomy for cancer and hyperthyroidism, and abdominoperineal resection for rectal cancer. The gastrointestinal cases represented the ultimate surgical challenges because any anastomotic leak usually meant the patient would die. Operations for thyroid disease were risky because the tumors were large and very vascular, or, in the case of hyperthyroidism, thyroidectomy was associated with the risk of postoperative thyroid storm. Emil Theodor Kocher, in Switzerland, had mastered the operation, but his operations still had a 4% mortality rate. Abdomino-perineal resection, although a major advancement in cancer treatment over local fulguration, carried the risk of extensive blood loss.

During the 1930s, both Brunn and Eloesser were pioneering in the new field of thoracic surgery. Tuberculosis, with its complications, was the number one cause of death. Cavitory disease with hemorrhage and empyema were frequent complications of tuberculosis. Pneumonia resulted in lung abscess, bronchiectasis, and empyema. Lung cancer was usually far advanced when first diagnosed and, less commonly than now, susceptible to surgical treatment.

Brunn pioneered lobectomy for cancer and bronchiectasis, in which—instead of using mass ligation—he dissected and ligated the lobar arteries and veins before dividing the bronchus. Eloesser devised the operation that provided a solution for tuberculous empyema. This technique was to insert a flap of skin into the pleura to keep the cavity open and prevent recurrent empyema.

Other types of cases treated during this period were wringer injuries of the arm; many types of fractures; chronic skin ulcers; huge inguinal hernias; abdominal tumors; oral cancers; big, fungating colon cancers; Ludwig's angina; all kinds of infections; and abscesses. Chronic osteomyelitis was a devastating problem and was treated with debridement and open drainage. Cholecystectomies and cholecystostomies were common operations. Tonsillar abscesses were frequent complications of tonsillitis, especially during the winter months. Tonsillectomies and adenoidectomies were done prophylactically on most children.

SPECIAL PEOPLE

Harry Ricks

Harry Ricks was the last horse-drawn ambulance driver—the only one who would go into Chinatown to pick up the plague victims.

Maggie Smith

Maggie Smith served as triage officer for Mission Emergency. Her station was the only entry point for walk-ins. She was a large, stout, intimidating social worker whose job it was to ensure that none but the truly indigent was admitted. Certain types of semi-elective cases were rotated between the two services if the admission was not a true emergency. If Ms. Smith was treated properly, she might favor one service over the other when it came to referring desirable cases. Ehler Eiskamp was advised—as he started as Stanford house officer in 1922—to be sure and take Maggie to dinner from time to time.

Nathalie Forsythe

Nathalie Forsythe was the secretary for the University of California at the San Francisco County Hospital during the 1930s and early 1940s. She was “the nuts and bolts of the UC Surgical Service.” She was a southern belle and spoke with a deep southern drawl. She had all the answers, pulled the strings, made the arrangements, and did all the dirty work. Her spacious office was just in back of Mission Emergency. It was also the central point for the UC visiting faculty, as there were no full-time faculty members or faculty offices then. Her office contained an old dictating machine on which operations were recorded for her transcription. She assigned cases to the third-year medical students and attended to their curricula. She shepherded the residents, too. After many productive years she married a fireman and retired.

Walter Whitehead

Walter Whitehead, the morgue man, whistled and blew as he pushed his gurney to the morgue. He had a hole in his chest you could put two fists into, all crisscrossed with trabeculae and half-opened cysts.

Oley

After Whitehead came Oley. He was also the grand gentleman in charge of dead bodies in the morgue. He spoke with a broad, Swedish accent; wore boots, a leather apron, and a hat; and sported a drooping mustache. He inhabited the dimly lighted bowels of the building where ran the exposed pipes and ducts. You could hear his clump, clumping down the long, dark hallways where, as he passed under a dim bulb, and catch a glimpse of him pushing a gurney on which lay a supine body outlined by the white sheet that covered it. He did the dirty work at autopsies.

Toby Bost

Toby Bost, one of twins, was the chief of UC Orthopedics at the County in the 1930s. He was not much over five feet tall, but he had a very aggressive personality. His brother was a pediatrician. At that time, general surgeons operated on all the fractures and orthopedists did the reconstructive surgery.

Edmund Butler

Edmund Butler was graduated from Stanford in 1911. He had his internship and residency training at Stanford from 1911-1914. His private office was at 490 Post Street. His administrative headquarters were at Central Emergency. He recruited and hired all personnel, including ambulance staff. He was a good surgeon, an excellent teacher, and a nice man personally, according to one of his house officers. He was appointed Chief of the City-wide emergency and ambulance system in 1919 and served until his death in 1954.

The job as an emergency physician was perceived to be a plum in which a young surgeon—all emergency room staff were surgeons—could earn income while building a practice. Butler gave graduates of the County surgical program preference for these jobs, and most of those who elected to stay in San Francisco signed on.

George Rhoads

George Rhoads obtained his B.S at UC and his medical degree from Johns Hopkins in 1915. He interned in surgery at Johns Hopkins from 1915-1916. His residency was at Roosevelt Hospital in New York from 1917-1918. He spent a year in the English ambulance service in World War I, from 1916-1917. He came to San Francisco in 1920, where he joined Edmund Butler in practice and was appointed assistant professor at UC and assistant chief of the Emergency Service.

As mentioned earlier, he and Butler alternated weeks covering the emergency system, which included Mission Emergency. The residents considered Rhoads a fine gentleman and an outstanding teacher. He was described as a kindly man with a ready smile. He was admired by all the residents who served under him on the emergency service.

When World War II started, he was appointed chief of General Hospital 330, a UC medical unit. He served as chief from 1942 until his untimely death from hepatitis in London in 1944.

INCIDENTS & ANECDOTES

War Surgery at San Francisco Hospital

Examiner 6-18-18: “War Surgery is used in SF Hospital. Methods of ‘West Front’ surgeons save the leg of a youth injured in San Francisco. Ward B of the City institution used to teach civilian and army doctors. Pedro, age 3, had his foot crushed by a motor truck. Carrel-Dakin’s solution used—foot saved!”

Medicinal Alcohol

Before the end of prohibition in 1933, the housestaff still managed to party. A physician could order spirits for medicinal purposes. Accordingly, “we might write a prescription in the name of a patient once a month and get a quart of very nice bonded whiskey. It was not much but added to the merriment of many parties.”

Grateful Rum Runner

“Once I had a patient who was a rum runner. In gratitude he presented me with a very large bottle of rum. This called for a party and resulted in a large gathering in anticipation of the libation. We opened the bottle and the one who took the first drink promptly spat it out and almost choked. It tasted like concentrated creosote!”

Near, Really Near Beer

“It was discovered that you could add 100% pure laboratory alcohol to the empty space in a bottle of near beer and come up with a very satisfactory beverage.”

The Longshoreman Strike

“On July 1, 1934, just as I became chief resident, the strike started with a bang. Four days later the ‘Battle of Rincon Hill’ occurred and one day after that, the strike became general. The first test on July 3rd came when the police cleared pickets from in front of Pier 38. As trucks attempted to leave the pier they were met by a large group of strikers who were repulsed by tear gas and night sticks of the police. Thirteen police and a dozen strikers were the casualties.

“Two days later, July 5th, ‘bloody Thursday,’ thousands of striking longshoremen and other maritime workers roamed the embarcadero turning over trucks, attacking strike breakers, burning goods and clashing with the police. More than 100 were seriously wounded or burned. Mission Emergency served as the front line for the wounded. The ambulances shuttled back and forth from the battlegrounds. We set up outside triage deciding who needed to go immediately to surgery, who had to be observed and who could be sent to other hospitals. We opened two new wards, one for the police and the other for the strikers.

“The deaths of two workers turned public sympathy toward the strikers. There was a solemn funeral procession in which 10,000 workers marched up Market Street. All accesses to the city were closed; all stores were closed. Practically all activities of a busy city were called to a halt before the strike was resolved.”

Painted Toenails

“There was always a problem of differentiating pelvic inflammatory disease (PID) from appendicitis in females. There was an aide in the ER who claimed she could identify PID, by noting whether or not the patient had painted toenails. She was usually right.”

Overpaid Chief

“As executive chief resident I made \$90 per month. I had to sign my name so many times that year I am sure it will never be a collector’s item. I commandeered a large empty room on the first floor, found a desk and chair, hung pictures on the wall, and had my office.”

A Case of Paraplegia

Eloesser’s dachshund developed transient paraplegia of the lower extremities, as this type of dog tends to do. Eloesser had the dog admitted to St. Luke’s hospital to a private room.

The San Francisco Examiner

Leo Eloesser had no liking for the Hearst newspaper. In one instance, when in the process of changing a dirty, smelly dressing on a patient with tuberculosis empyema, he said to the nurse, “Please, Mrs. Fuller, get me an *Examiner* for these dressings.” After some time, she returned with the *San Francisco Chronicle*. “Doctor I am sorry, I could not find an *Examiner*.” Leo assured her that it was all right, “but I do hate to put these dirty dressings in a *Chronicle*”.

Teach by Example

Eloesser loved to teach by example. The senior students were allowed to assist in surgery, but were sometimes reluctant to spend ten minutes to scrub their hands and arms. He would tell the students that bacteria were invisible and much smaller than particles of soot, and should be washed from one’s arms and hands before surgery. To prove his point, he had the student immerse his arms and hands in a pot of soot with instructions that he join the operation when his hands were clean. Invariably the student would still be scrubbing when the operation was finished.

Student Teaching

“At our first session, Eloesser called on a student to present the case that he supposedly had worked up in detail. He was quizzed about details concerning the heart, lungs, abdomen, rectum, and neurological status, including the patient’s gait. The student was very glib with his answers, particularly emphasizing that the gait was normal. With that, Eloesser pulled back the sheets to disclose, to the presenter’s chagrin, that the patient had only one leg.”

Contaminated Bullets

Once, while Eloesser was operating with his resident on a gunshot victim he asked, “How high does the muzzle velocity of the bullet need to be to sterilize the bullet?” When the resident expressed ignorance, Eloesser responded: “Well, when I was in Germany they were experimenting with

bacterial coated bullets, and they had us run experiments with the various muzzle velocities to find out what speed sterilized them”.

Eloesser's Rounds

“Although I trained on the opposite service, I always tried to find time to go with the Stanford group on Eloesser’s rounds.”

Eloesser and the Greek

A Greek patient had burns of his scalp, from ear to ear, from his forehead to the nape of his neck.

Eloesser: “What’s wrong?”

Patient: “Burn.”

Eloesser: “Yes, I see. How come?”

Patient: “My friend burn me.”

Eloesser: “What for?”

Patient: “He burn me for funny. Ha Ha.”

Eloesser commented, “The Greek and I became long-time friends. He invited me to the Greek Orthodox baptism of his daughter.”

A Startling Event

“I was startled to see Eloesser pushing down the hall a patient with an open chest. It seems that he was taking the patient to xray for open treatment of his lung cancer.”

Christmas Dinner

Harold Hill, the chief of Stanford Medicine at the County, was invited to a Christmas dinner given by Eloesser’s mother and father. Most of the members of the Eloesser family were there, but not Leo. Hill wrote, “We had an excellent dinner and, just about the time we finished the turkey and dressing, Leo appeared. He kissed his mother and father and disappeared into the kitchen, soon coming back with a large basket with the remains of the turkey in it, along with whatever else he could find in the kitchen.”

He said “I am sorry I can’t have Christmas dinner with you, but I have some patients in the Mission that are not going to have any dinner tonight unless I bring it. Merry Christmas!”

A Sad Surprise

No one suspected that Miss W, an operating room nurse, had been pregnant for nine months. She had the baby after she got off duty one day, and threw it down a laundry chute, where it was found the next morning among the bloody linens. The poor woman was discharged. Someone was heard to say, “Can’t have such goings on, even in the County Hospital”.

What a Whirligig

“A woman intern who masqueraded as a man shared her room with a male intern who swore he never knew!”

Ward M

The chief resident was responsible for the prostitutes’ ward. Prostitutes who tested positive for venereal disease in one of the community clinics were

ordered by judges to be confined to Ward M. They remained confined until three successive cultures for gonococcus were negative or until they had completed arsenical and bismuth treatment for syphilis. The ward was a jungle, and it required stout matrons and big-muscled orderlies to maintain any kind of discipline.

In 1924, the inmates succeeded in binding and gagging the staff one evening and escaped in their hospital gowns. The ward was so notorious that, when antibiotics became available and the ward was no longer needed for prostitute incarceration, its name was changed to Ward W—which, of course, was out of alphabetical sequence with the rest of the wards.

Eloesser's Special Autopsy

Eloesser wrote, “My first autopsy at the County Hospital; I carried the body of ‘Little Egypt’ to the morgue myself. ‘Little Egypt,’ the original belly dancer, a little redheaded Irish woman. Dead of pancreatitis. The famous ‘Little Egypt’ wiggled her gold-spangled umbilicus about in the Midway of the Chicago Columbian Exposition in 1893. Poor ‘Little Egypt’ of Bella Union Theatre, the burlesque shows and the basement dives of upper Kearney Street, dead and forgotten.”

First Case

“During my UC residency, I was in my sixth postgraduate year (1944-1945) before I did my first major case. Up until that time we assisted our professors or our chief resident, who in his final year did everything from hernias to major thoracic procedures.”

Cut Throat

“Our babysitter responded to a knock on the door of our apartment to find a somewhat disreputable-looking Chinese man carrying a large gunny sac. He apparently could not speak English, but managed to say ‘Dr. Mathewson he’—then he ran his finger across his throat. He was trying to indicate that Mathewson had operated on his thyroid, but she misinterpreted this, screamed, and tried to close the door. Just before she succeeded in doing so, he tossed the sac through the door. Thinking it was a bomb, she immediately tossed it out the window expecting an explosion. The sac however seemed to come alive which resulted in more screams. It turned out the sac contained a live chicken that my patient had brought as a gift.”

Escape

“An ex-convict, shortly after his release from prison, attempted to rob a night watchman. However, the victim had a gun and managed to empty his revolver into the right upper quadrant of his assailant. We managed to fix the liver injury, but the patient required close nursing attention on the surgical ward. He was guarded 24 hours a day, was extremely obnoxious, spat on the nurses, and cursed his guard. One night when I was working late, I saw, out of the corner of my eye, the prisoner sneaking the bathroom carrying the sheets from his bed. As soon as I saw him disappear into the bathroom, I ran to what appeared to be his inattentive guard and asked: “Didn’t you just see what he did?”

“Yes I did,” responded the guard.

“Why didn’t you stop him? He is going to tear the sheets make a rope and climb down out of the bathroom.”

The guard said, “Don’t worry son, he won’t get more than halfway.”

Attached to a Chair

There was a little old lady who was so short of breath that she had to sit up to breathe. Her family arranged for her to sit in a wicker chair. They cut a hole in the bottom and put a pail underneath to care for her bowel and bladder needs. After a number of weeks, they decided that she was not getting better and an ambulance was called. When they tried to lift her out of the chair the chair came with her and she cried out whenever they tried to pull the chair from her. They transported her to the hospital in the chair. When the nurses took her clothes off it was apparent that the chair had eroded through the soft tissue to the bone, and the chair was fixed in place with exuberant granulation tissue.

CASES

Carcinoma of the Breast

Rixford reported four cases of breast cancer in which he resected the chest wall. No endotracheal anesthesia was used. He slipped a wet towel into the chest to occlude the opening and prevent collapse of the lung. He had no problems with an open pneumothorax.

Streptococcal Infection

“I was engaged in a long operation when I got a call that one of my fellow interns, Mo, was ill in the infectious disease ward. At the completion of the case I called the ward and was informed that Mo was desperately ill. It seemed that he had spent the night with a patient who died that morning from streptococcus septicemia initiated by a strep throat. Mo apparently picked up the same organism and was raving with fever from the disease. With the protection of a mask, gown, and rubber gloves, I assisted in restraining him, but was otherwise helpless to keep him from dying within my grasp. One of the hardest tasks of my life was to pronounce him dead and offer solace to his mother and father.”

A Transplant First

There was a former prize fighter, “Buck Kelly,” who—after shooting a taxi driver and commandeering the taxi—went on a crime spree, shooting a number of innocent people. He was finally trapped by the police and shot in the abdomen. His abdomen was tender and we told him that he would die if he did not have an operation. He refused. Later we found that the bullet had bounced off his ilium and encircled his trunk and was lying in the subcutaneous tissue.

After a suitable trial, he was condemned to be hanged. It happened that the San Quentin physician at the time, Dr. Stanley, claimed that he could revitalize impotent men by transplanting fresh testicular tissue from fresh cadavers. A young urologist at the University of California arranged to obtain the tissue immediately after Kelly’s death. I understand this tissue was transplanted into a prominent individual. The outcome of the operation was never reported.

Bronchopleural Fistulae

There were always patients with chronic tuberculosis around who had bronchopleural-cutaneous fistulae; most often this condition followed the drainage of a tuberculous empyema. These poor souls were condemned to a lifetime of institutional care. "We attempted to treat them by collapsing the chest wall down on the residual space (thoracoplasty). In one period, we attempted to cauterize the fistulae through the open chest by using silver nitrate sticks. To locate the more obscure fistulae, the patient would hold his or her nose, close the glottis, and strain. The fistulae would bubble and whistle."

Missed Injury

"When I was a green intern in the emergency room, a man who had been in an auto accident was admitted whose body had been perforated by dozens of shards of glass. I spent the evening picking out the glass, cleaning and closing numerous wounds. The next morning I showed him with pride to Dr. Eloesser who inquired about further injuries. He then proceeded to examine the patient himself and found an obvious posterior dislocation of the hip. I learned an important lesson in life. Do not be distracted by obvious injuries. Always do a thorough examination. An obvious injury may mask a more serious one!"

A Numb Arm

A man injured in a high-speed chase was brought into the emergency room by the police. He was holding his arm, which he said was numb. When we removed his coat, his arm came with it. It had been completely severed below the left shoulder.

T and A's

During the summer months and school vacations there would be a vast number of poor little children lined up in the operating room corridor awaiting tonsillectomy and adenoidectomy. About 20 or more of them were done each morning before the regular surgical schedule started. We had two rooms devoted to this purpose, one for the ENT resident and one for the surgical resident. The patients would be brought in already anesthetized, their tonsils and adenoids would be removed, and then they would be wheeled out and the next one wheeled in.

Infected Wounds

"We treated badly infected wounds in casts. Often when the casts came off, the wounds were crawling with maggots. We specially raised them to prevent tetanus and then put the little buggers in the wound, covered them and left them. Carrel-Dakin solution (sodium hypochlorite) was used by continuous drip on other infected wounds."

Wringer Injury

One of the standard injuries in the 1930s and 1940s was the wringer injury. The early washing machines came equipped with two rollers, which compressed wet wash and removed most of the water. In the course of feeding the wet wash into the rollers, it was easy for the hand to be caught in a relentless grip that pulled the arm up to the elbow or to the axilla. As this happened, the

skin and subcutaneous tissue were stripped from the underlying arm. The skin was often so badly mangled that the rule was to remove the flaps of skin that were generated, de-fat them, and replace them as full-thickness skin grafts. Sometimes they took and sometimes they did not.

Open Drainage Tuberculosis

“During my chief resident year, the UC Service embarked on the study of Monaldi drainage to treat tuberculosis cavitory disease. This process consisted of percutaneous suction drainage of the cavities. When I think of the risk to housestaff and students, I shudder!”

Hiccups

“We had a poor patient who had ‘hiccups’ for 40 days in spite of every medical and surgical measure we could think of. He finally burst out of the hospital and ran in front of a car on Potrero Avenue. That cured his hiccups but the hard way.”

Ascites Bank

“We banked the ascitic fluid that we drained regularly from jaundiced patients with ascites sometimes referred to as “yellow pumpkins’ by the housestaff. We used it to treat shock and malnutrition.”

Empyema

Empyema was a common and often deadly complication of lobar pneumonia, the most common cause for medical admissions during the winter months. The surgeons’ role was to drain empyema cavities. This most often consisted of tube drainage, but open drainage with an Eloesser flap was used as well. Before the introduction of antibiotics, decortication of a chronic cavity was rarely used.

Assisting Leo

“Because of my interest in thoracic surgery, Carl Mathewson—whom we called Matty—would occasionally assign me to assist Leo Eloesser in his private surgery. Leo would pick me up at the County in his big Buick convertible and take me with him to St. Joe’s. The top was always down, rain, fog, or shine. My white suit would often turn into a wet dishrag.”

Rounds with Eloesser

“Dr. Eloesser enjoyed making rounds with the surgical housestaff. The only trouble was that they were usually at 4:30 A.M. One morning we made rounds on a Chinese fellow with horrible ulcers on his feet. Neither the intern nor I was able to obtain a history for the man. None of the Chinese interpreters could understand him, and he spoke absolutely no English. Leo took a special interest in the case and was able to speak to him in his dialect. Because Eloesser was so short, he actually climbed in bed with the man to examine him. Finally he said: ‘Boys, what’s the diagnosis?’ We had no response. He said: ‘This man has Hansen’s disease. Feel these enlarged epitrochlear lymph nodes; look at these ragged ulcers. If you had taken a history you would have found that he comes from an area of China where leprosy is endemic!’”

The German Consul

A Wet Clinic was put on for the American College of Surgeons meeting. The large third-floor amphitheater at the County was filled to capacity. Eloesser elected to operate on the German consul to resect a huge lung tumor as his demonstration. In this period, his operation consisted of mass ligation of the lung hilum with distal lung amputation. Just as the lung was divided and removed, the ligation slipped off the hilum, and massive hemorrhage ensued. The patient died on the spot! The nonplussed surgeon announced: "Gentlemen, we will now start the autopsy."

Splenectomy

In preparation for another American College of Surgeons meeting, Carl Mathewson—then a junior professor—was asked to select a case as a warm up for the main operation to be done by Eloesser or Brunn. A week or two before, Mathewson had done a cholecystectomy on a patient with a splenic hemolytic disorder. In the course of that operation, he reached over and palpated what he found to be a large mobile spleen; he could nearly pull it up into his right subcostal incision. "An ideal case!"

Several weeks later, equipped with a microphone around his neck, he was ensconced in a rapidly filling amphitheater with an audience eager to see the professor's case, which was to follow. Much to Mathewson's horror, when he attempted to expose the spleen, he found it bound down by numerous dense, vascular adhesions. Forgetting the microphone in the course of the dissection, he uttered several swear words under his breath. The audience burst out laughing. He—thinking they were laughing at his difficulty—let out a stream of expletives under his breath, only to be greeted by a downright roar of laughter. Fortunately someone came up, tapped him on the shoulder, and informed him that he was being broadcast. Worse yet, by this time his hour was up and the main event displaced him into the hall, where he had to complete his operation.

Plastic Surgery

"A tough policeman I knew brought in a roaring drunk Swede, handcuffed and bleeding from overt facial trauma. On examination I found numerous lacerations of his face, which I proceeded to sew up. He also had a terribly misshapen nose, bent over to one side of his face. I took the heel of my hand and gave the nose a real hard blow and pushed it back to the midline. I then proceeded to pack the nostrils and put adhesive across his nose. I was quite pleased with the result. The next week he returned to the emergency room demanding to see the doctor who set his nose. As I was apprehensive about his response to the care I had provided, I said that the doctor was out. "Oh, I am sorry, I came to thank him for straightening my nose; it has been bad for 20 years and I wanted to give him a little present in appreciation."

SUMMARY

The period between 1915-1945 represented the flowering of Surgery throughout the United States. Although aseptic principles had evolved with the turn of the Century, surgical technique remained quite crude, changing gradually during the 1920s and 1930s. Rough surgery was accompanied by a high incidence of wound infection, breakdown of gastrointestinal anastomoses, and resultant fatal peritonitis.

Peritonitis from a ruptured appendix or gall bladder was most often fatal, as there was no such thing as antibiotics. The key to preventing this and other life-threatening infections lay in early diagnosis and meticulous surgery.

Advances in surgical technique during this period were stimulated by exposure of senior staff to the German School of Surgery and by the example being provided by Halsted at Johns Hopkins University. Brunn and Eloesser, the Chiefs of the two University Surgical Services, had received part of their surgical education in Germany, and the leaders of the Surgery Departments at the University of California and Stanford University had been trained in the Halsted method, which emphasized atraumatic dissection and meticulous hemostasis. As the result, surgery became much safer because of a marked decrease in wound infection and improved wound healing.

These developments were reflected in San Francisco City and County Hospital by the expansion of gastric, biliary, colon, and thyroid surgery. Moreover, Brunn and Eloesser participated in the development of the new field of thoracic surgery. Brunn was the first to perform lobectomy, utilizing definitive ligation of the major pulmonary vessels and bronchus. Eloesser pioneered in the treatment of inflammatory disease, which included tuberculosis. He developed a unique method of drainage of chronic thoracic infection, using a flap of skin to keep the cavity open.

Specialty training was negligible at the beginning of this period. One-year rotating internships constituted the maximum training for most medical school graduates, and most surgery in the United States was performed by physicians without extensive training in a broad range of disorders than could be treated surgically. After advances in anesthesia, asepsis, and finer surgical and related techniques occurred, the *Age of the Surgeon* emerged, as major life-preserving operations became possible, when performed by trained surgeons. As the result, in San Francisco, formal training programs in surgery, based primarily at the County Hospital, were organized by both the University of California and Stanford University in the early 1930s. These training programs emphasized accurate diagnosis and dedicated preoperative and postoperative care, in addition to good surgical technique. As the graduates of these programs entered practice, they set the standards for surgery in the Western United States.

UNIVERSITY OF CALIFORNIA STAFF

Resident Physicians—Administrators

1923 Frank Shelly
 1929 Daniel Collins
 1930 Martin Debenham
 1931 Harry M. Blackfield
 1933 Ray Millzner

Resident Trainees—Combined Program under Dr. Glenn Bell

1934 Leon Goldman, Jack Nicholson
 1935 Charles Rosson, Dudley Saeltzer
 1936 Walter D. Birnbaum, Jacob O. Smith
 1937 Jacob O. Smith
 1938 F. Harry Benteen, John M. Fernald, Clayton G. Lyon
 1939 Horace J. McCorkle, Maurice L. Zeff
 1940 Maurice J. Brown, Clinton V. Ervin Jr.
 1941 Edwin G. Clausen, Ralph D. Cressman, Sanford E. Leeds
 1942 R. Bruce Henley, Harry E. Peters Jr.
 1943 Marshall W. Johnstone, Henry L. Silvani
 1944 William Brock, Stanley G. Johnson, E. William Rector
 1945 None listed

STANFORD UNIVERSITY STAFF

Residents Physicians—Administrators

1926 Everett Carlson
 1928 Raymond Scott
 1930 Artemus Strong

Resident Trainees San Francisco County Hospital

1935-1936 Milburn H. Querna
 1936-1937 W. Wallace Green
 1937-1938 Cecil Cutting
 1938-1939 Louis Huff
 1939-1940 Russell R. Klein
 1940-1941 Bert L. Halter
 1941-1942 Roland Pinkham
 1942-1943 John M. Buehler
 1943-1945 Otto Tuscha

CHAPTER II

THE MATHEWSON–GOLDMAN–YEARS: 1945–1966

The period between World War II and the introduction of Medicaid and Medicare in 1966 was the apogee of the strength and influence of county hospitals on American medicine. During that time, most of the medical students in the United States had most of their training in a county hospital. Philadelphia General Hospital, Charity Hospital in New Orleans, and Los Angeles County Hospital all had between 2,000 and 3,000 beds. San Francisco City and County Hospital—affectionately still referred to as “the County” even though its name had been changed to San Francisco General Hospital (SFGH)—had 1,300 beds.



Although supervised by a non-paid volunteer attending staff, the interns and residents—the housestaff—had the ultimate responsibility for day-to-day patient care. The strength of most of these programs was in their rotating internships, as residents in specialty training in 1945 still constituted a relatively small percentage of the housestaff. As had been true since 1915, the two medical schools in San Francisco, Stanford University and the University of California (UC), shared staffing of the San Francisco City and County Hospital. Each had separate specialty services at the County and assumed responsibility for staffing them. This arrangement lasted until 1960, when Stanford moved its medical school from San Francisco to Palo Alto and gave up its responsibility for the hospital.

With the end of World War II, it was necessary to upgrade the training programs and staffing in the hospital because of advances in medicine and surgery that were an outcome of the War. Before World War II, general practice surgeons who had little or no formal training did most of the surgery in the United States. New developments in surgery and anesthesia stimulated by the war—such as a better understanding of shock, resuscitation, and blood

transfusion and the introduction of antibiotics—made surgery safer and led to the potential for marked expansion of the discipline. In order to take full advantage of these developments, reorganization and expansion of surgical training was required.

In 1946, Leon Goldman, the executive officer and assistant chief of the County's UC Surgical Service during the War, was promoted to chief of service, relieving Horace McCorkle, who had served the previous two years. Carl Mathewson, who had just returned from the War, was appointed chief of the Stanford service at the County to succeed Leo Eloesser. Roy Cohn, who had served with Mathewson during the War, was recruited as Mathewson's deputy.

The first order of business for Goldman and Mathewson was re-establishing the residency training program, which had been makeshift during the war. The second challenge involved obtaining resources from the City and County of San Francisco to support the additional residents needed to permit expansion of their programs. They also needed to sort out the legacies of the residency, the men returning from the War who had dropped out of training at variable times to serve during the War. This had resulted in more residents being promised positions than there was funding available to support them. However, thanks to the GI Bill, which provided educational funds to veterans, those who were ex-servicemen could subsist on this resource while waiting for the County to fund their positions.

THE PROFESSORS

Carleton Mathewson, Jr.

Mathewson was chief of the Stanford Service from 1945-1960. In 1960, after Stanford moved to Palo Alto, the University of California (UC) took professional responsibility for the County hospital and offered Mathewson the position of UC professor of Surgery and chief of the UC Gold Surgical Service, which formerly had been the Stanford Service. Mathewson accepted, changed his allegiance, and ran this UC Service at the County until his obligatory retirement at age 65.



Mathewson's mother and father were both physicians who had met and married at Cooper Medical College, which became Stanford Medical School in 1908. Carl, the second of three children, was born in Calistoga, California in 1902 while his father was doing a locum tenens. He was raised in Fresno, where his father was the City Health Officer.

Mathewson entered Berkeley at age 17. After one year, he transferred to Stanford, where he received his B.A. in 1923 and his M.D. in 1927. He then enrolled in the rotating internship at the County and spent the next year (1927-1928) as a Stanford surgical house officer. Emmett Rixford was the chief of Surgery of the County Stanford service—from him Mathewson learned

technical expertise. Leo Eloesser was the assistant chief of Surgery at Stanford—from him he learned clinical acumen.

In the 1920s, there was only one chief resident for all specialties at the County, inevitably a surgeon. It was the custom to rotate the chief resident position between UC and Stanford in alternate years. The year Mathewson completed his surgical house officer training in 1929, it was UC's year to provide the chief resident. However, Eloesser, a good friend and personal physician to the Director of Public Health, intervened to get Mathewson appointed chief resident for the year instead. Mathewson's irregular appointment caused a major uproar that reached the governor's office. The result was that Mathewson's appointment was revoked and he was abruptly out of a job.

Mathewson was interested in orthopedics. He applied and was accepted at the University of Iowa, where he spent six months training with Arthur Steindler. He next took a position at Wilkie's clinic at the Royal Infirmary in Edinburgh for six months. Finally, he took Eloesser's advice and moved to Germany, where he assiduously memorized a speech in German and earned himself a position with Nicolai Guleke, the head of the University Surgical Clinic in Jena, where he found the ideal professional relationship. He remained in Jena from 1930-1933, by which time he had become Guleke's chief assistant. Katherine Daly, his fiancée, joined him in Germany, where they were married in 1932.

The political situation in 1933 became increasingly uncomfortable for Mathewson in Hitler's Third Reich. Rixford, chief of the Stanford Surgical Service, retired as chief of service at the County in 1932 and Eloesser was appointed his successor. When Eloesser invited Mathewson to be his junior associate at the County, Mathewson gratefully accepted and returned to the County as assistant chief of the Stanford Surgical Service.

Mathewson worked full time at the County and was given a Stanford University appointment as assistant professor. As part of his appointment, he was provided a private office at Stanford. He also assumed responsibility for the Municipal accident patients on Ward I at the County. As assistant chief of the Stanford Service, he drew a small salary and supervised residents and medical students.

With the onset of World War II, Stanford organized a medical unit, the 59th Evacuation Hospital (59th Evac), and Mathewson joined as its chief of Surgery. This unit was mobilized in 1942 and served first in North Africa, then in Sicily, Italy, France, and Germany. By the time Mathewson was discharged in 1946, he had been promoted to a full colonel and had been awarded the Legion of Merit, the European-African campaign medal, and five campaign stars.

On his return from the War, Mathewson was welcomed back to the Stanford Medical School faculty and was appointed associate professor and later professor. He was given a private office at the Stanford University Hospital, which he shared with Roy Cohn. Even so, there was no thought of integrating the County surgical residency with that of the Stanford University Hospital. The relationship between the two training programs had been negligible during Eloesser's tenure, and Emile Holman, chair of the Stanford University Department of Surgery, saw no need to combine the programs. Those at

Stanford thought they had the better program. Those at the County knew theirs was better.

Shortly after his return to San Francisco, Mathewson was appointed Secretary of the American Board of Surgery. The American Board of Surgery had been formed in 1936, but the certification of surgeons and of training programs—decided upon in 1937—had not been initiated. Mathewson played a major role in implementing the standards for training and qualifications for Board certification. The length of training was set at a minimum of four clinical years or three years plus a preceptorship with a Board-qualified surgeon.

As had been true of his predecessors, Professor Mathewson—Matty, as he was affectionately known—spent all day Wednesday at the County. Occasionally, during Wednesday rounds, he would select a patient to operate on—one needing pancreatic, biliary, or esophageal surgery, his areas of interest. He would operate or assist residents with difficult or unfamiliar cases, if requested.

Although Matty was demanding of his residents, he was respected and represented a father figure to them. Once Matty believed in a resident, that resident knew he would be supported to the outside world through thick and thin. For example, once one of his residents was being disciplined by the County Hospital administrator for hitting a reporter who had compromised the privacy of a female patient in Mission Emergency. When Matty heard that the resident had been fired, he insisted that the resident's story be reviewed, and when he heard the details, he passionately exclaimed, "By God, I would have killed the bastard." This effectively ended any thought of disciplining the resident. Matty also found jobs for his residents when they finished training, even stretching the truth, if necessary, to help secure a position for them. As a result, his residents admired him and were loyal to him.

Roy Cohn

Roy Cohn, assistant chief of the Stanford Surgical Service, was the faculty member the residents had the closest contact and identification with. He always seemed to be around. Cohn also had a University appointment and a private office at the University Hospital.

Cohn was born in 1909 in Portland, Oregon, where his father was a businessman. He was the youngest of twelve children. Shortly after his birth, the family moved to Los Angeles. Early in high school, Roy was identified by Stanford psychologist Lewis M. Terman as a gifted child, and at age 14 years he was offered and accepted a scholarship to Stanford. After three years of college, he entered Stanford Medical School. Because of his young age, he had missed all of the social activity usually associated with high school and college. The exception was tennis, which he loved and pursued for the rest of his life.

Cohn completed his M.D. degree at Stanford in 1929 and took a rotating internship at the County. He had impressed William Dock, a famous



internist/pathologist at Stanford, and Dock helped him obtain a residency in pathology under Mallory at Massachusetts General Hospital (MGH). After a year, Mallory helped him secure a job in neurosurgery, working with William Jason Mixter. Cohn impressed the chair of Surgery, Edward Churchill, and was accepted for four years of surgical residency. He was the first Jew to be appointed chief surgery resident at MGH

After completing his residency, Cohn returned to San Francisco and was offered \$200 a month to supervise student teaching at the County. Mathewson, whose job it had been, was now extremely busy in private practice. Cohn saw patients in an office at the University one or two afternoons a week. His private practice did not flourish, and most of his clinical activity at Stanford consisted of covering the practices of other surgeons when they were out of town.

In 1939 Emile Holman, the chair of Surgery at Stanford, was asked to nominate someone to start a new hospital in Bombay, India. As the job paid what was then a high salary of \$800 a month, Cohn volunteered and received Holman's endorsement. After succeeding in his mission, he returned three years later, in time to join the 59th Evacuation Hospital, then being organized by Mathewson. During World War II, Cohn was known for his superhuman ability to turn out work. In one continuous night and day effort in France, he personally treated more than 200 battle injuries—an unbelievable accomplishment, unless one had seen him work.

After the War, Cohn accepted Mathewson's former job as assistant chief of the Stanford County Surgical Service. Cohn covered Mission Emergency seven days a week during Stanford's emergency week, missing only a day or two if it was in conflict with an important surgical meeting. The residents called him on all cases where an operation was necessary. As there was no paging system, the challenge was how to locate Cohn. The residents soon learned his schedule, and during daylight hours—if he was not in his private office or at the County—he usually could be located at the California Tennis Club.

Roy always seemed to be around and was the ultimate consultant. He would always come when requested—and he had a knack of showing up at the right time whenever he was needed. He could smell out pathology and make diagnoses over the phone. When Roy was present, it was necessary to keep the operation moving or he would step in and take over. Most of the residents loved him, but the occasional resident who did not fit his mold was in trouble—was given little leeway and lots of hands-on supervision.

Most medical students were afraid of Cohn, but when he had a group of students he liked, he would spend a lot of special time with them and regale them with war stories. These were fascinating sessions. Roy enjoyed dissecting wartime generals—he knew General George S. Patton and disliked him intensely—and he had visited German concentration camps and described their horror.

Cohn could not tolerate verbosity. Residents rapidly learned that their presentations should be short and to the point. He had a sarcastic sense of humor and “you knew that he liked you when he used it on you.” Sarcasm without humor, however, meant trouble.

Cohn felt his Jewish background strongly but never confided why. Shortly after World War II, he met and married a lovely nurse—Ruth Wood.

When his children were born—four boys and a girl—he insisted they carry their mother’s name rather than his own.

Unfortunately for the San Francisco program, Cohn elected to move to the new Stanford Medical School in Palo Alto in 1959. His private practice had never matured in San Francisco and the offer of a full-time salary was something he could not afford to refuse. Bert Halter, Cohn’s backup, filled his position for the next few years. Bert was the most respected member of Mathewson’s attending staff and continued Cohn’s tradition.

Cohn finished a very successful career at Stanford as a respected clinical surgeon and the clinical conscience of the medical school. When he retired, three surgeons were required to replace him, as he functioned not only as the busiest general surgeon at Stanford, but also as the primary pediatric and transplant surgeon.

Leon Goldman

Leon Goldman (“the Coach”) was chief of the UC Surgical Service from 1945-1956, until he became UC’s chair of Surgery. However, he continued to serve at the County Hospital as associate dean until 1964.

Goldman was born in San Francisco in 1904 to parents who had emigrated from Poland. He was raised in Taft, California, in the San Joaquin Valley. He attended UC Berkeley on a football scholarship, was graduated in 1926, and attended UC Medical School in 1930. His medical education was followed by a straight surgical internship at the UC University Hospital.



When Howard Naffziger became head of the Department of Surgery at UC, he decided that he would practice neurosurgery full time. He recruited Glenn Bell to be chief of General Surgery in 1931. Bell was trained in the Halsted method, which emphasized fine, meticulous, bloodless dissection. Bell appointed Goldman as his first chief resident. The second year of Goldman’s four-year residency at UC was spent as a house officer at the County.

After completion of his chief residency at UC in 1935, Goldman was appointed instructor and executive officer of the UC Surgical Service at the County under Harold Brunn. Naffziger encouraged Goldman to obtain some advanced research experience in basic science. In 1938, Naffziger helped get Goldman a fellowship in gastrointestinal physiology with Andrew Ivy at Northwestern University in Chicago. Goldman returned to the County in 1939 as assistant professor of Surgery, resumed his duties as executive officer under Harold Brunn, and was responsible for the student teaching program. In 1942, Brunn retired and Horace McCorkle took over the position as chief of service for two years. In 1945, Goldman was promoted to associate professor and chief of the UC Surgical Service at the County.

Goldman had a distinctive hoarse, breathy voice that was a family characteristic—his brother “Artie,” a thoracic surgeon in Los Angeles, sounded just like him. Goldman was a big, physically impressive man, but he was troubled with Crohn’s Disease for most of his adult life. After suffering for years with the disease, he prevailed on Glenn Bell to operate on him. Alan Johnson—present at the operation, in 1952, where Spencer Chester was the chief resident—indicated that they found extensive ileal disease with mesenteric inflammation and adenopathy. As a result, most of Goldman’s ileum was removed, which left him with “short bowel syndrome.”

Goldman’s nickname, “the Coach,” was a term of affection applied by his residents. According to Goldman, it came about because, when he was recovering from his operation, he wore a golden bathrobe with a large C—for Cal—on it that had been given to him by his brother. Someone asked him what the C stood for, and he replied good humouredly, “Oh, that’s for Coach” —and Coach he was, forever after.

The Coach was described as a wonderful teacher and leader. He won the medical school’s outstanding teaching award in 1955. He had some characteristic clinical adages, such as “the treatment for right-sided PID (pelvic inflammatory disease) is a McBurney incision.” He also had much wisdom to impart on gastrointestinal function. One of his favorite comments, when told that a patient had a silent abdomen, was, “How long did you listen?” When there was a discrepancy between the clinical and radiological diagnosis, he taught that the clinical diagnosis was most likely the correct one. He particularly emphasized a thorough clinical history and physical examination.

Goldman enjoyed a warm relationship with his housestaff. He would sit with them after lunch at the County and regale them with stories about surgical history or discuss sports, current events, or any topic of the day.

The Coach always seemed to be around during the regular workweek at the County, despite a busy private practice at UC and Franklin Hospitals. When his chief resident was involved in a particularly difficult operation, he would pop into the operating room from time to time to offer clinical advice. This he would do in dress clothes covered by an open hospital gown with a 4 x 4 held over his mouth in deference to sterility. He rarely scrubbed with the residents at the County, but when he did, it was always as the first assistant, not the surgeon.

He was kindly in the operating room and emphasized a meticulous, deliberate technique. He was not a rapid surgeon, but a gentle one who never got into trouble in the operating room. If his resident took too big a bite of tissue with the hemostat, he said nothing, but would stop, remove the clamp and replace it in proper fashion.

He was very thoughtful and caring of his patients. During a research study on vitamin E injections to improve the postoperative return of peristalsis, he asked when hospitalized that he receive the injection himself. He found that it hurt so much that he cancelled the project. Another example of his caring involved a long-time private patient of his who needed an additional operation for bowel obstruction. This patient had been out of work for so long that he could not afford hospitalization and planned to go to the County. When Goldman heard of the plan he replied, “Nonsense,” and had the patient hospitalized at UC and paid the bill himself.

Goldman was the primary author of more than 100 scientific articles, many book chapters, and a textbook on carcinoma of the breast. His clinical

interests were the biliary tract, breast cancer, surgical endocrinology, and calcium metabolism. In the latter endeavor, he allied with Gil Gordon, a basic scientist, and they collaborated for many years. He developed an active clinical practice, which in later years emphasized thyroid and parathyroid surgery.

Goldman enjoyed all sports but particularly loved Cal football. Every year, he bought a block of tickets for either the UCLA or USC game—seats were not available for the UC-Stanford Big Game—and took residents who were not on call that day to the game.

Goldman was appointed chair of the Department of Surgery at UC in 1956, succeeding Howard Naffziger and Glenn Bell. However, his direct service to the County was not finished. In 1959, after Stanford had served notice that it was abandoning the County with its move to Palo Alto, Goldman was appointed the first UCSF associate dean for the hospital. His initial responsibility was to negotiate a contract spelling out a new relationship between the County and UC. As long as there had been two Universities sharing facilities at the County, the County administrators had played one University against the other. There were no outpatient clinics because both Universities ran indigent clinics of their own. Moreover, the County did not provide laboratory support—only the Universities did. Now, with only one University involved, the County's feet could be held to the fire, as the County could not continue to provide services without UC's help. Goldman, with the help of a supporting committee, negotiated a contract that required the County to develop a proper laboratory facility and fund the staff necessary to run it. The contract also required the County to provide anesthesia, pulmonary, and cardiac services. The budget negotiated for University services was 1% of the annual hospital budget. Goldman remained associate dean until 1964 when Moses Grossman, chief of Pediatrics at the County, succeeded him.

Clayton Lyon

Clayton Lyon was born in 1905. He was graduated from UC Berkeley in 1929 and from UC Medical School in 1933. He entered the straight surgical internship and residency program at UC and completed his training in 1936. He was particularly interested in thoracic surgery and, on the basis of his training and clinical experience, was certified by the American Board of Thoracic Surgery.

On completion of his residency, Lyon joined the volunteer faculty at the County and was appointed Instructor of Surgery. He also entered private practice at Franklin Hospital. In 1938, he founded the first blood bank in the western United States at the County and, several years later, the Irwin Memorial Blood Bank for the County Medical Society of San Francisco.

During World War II, he compromised his developing private practice by spending volunteer time at the County and working at Mission Emergency. When Leon Goldman became chief of the County's UC Surgical Service after the War, Lyon became his executive officer. In later life, he was handicapped by



Marie Strumpel cervical arthritis, which caused severe torticollis and chronic pain.

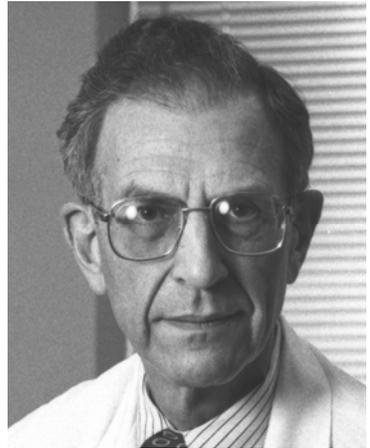
With Goldman's promotion to chair of the Department of Surgery at UC in 1956, Lyon became chief of the UC Surgical Service and served until the appointment of William Silen in 1961. Although Lyon's primary clinical interest was thoracic surgery, he also practiced as a general surgeon and published definitive articles on acute cholecystitis and acute gastrointestinal hemorrhage.

Lyon was much respected for his selfless contribution to the County surgical program and was regarded as a stern leader and taskmaster. He tended to be cross with his residents, most likely because of his chronic pain. Although not well liked by his residents, they respected him and considered him a good surgeon.

Lyon seldom scrubbed with the housestaff after he became chief of service. However, he was intensely interested in ensuring optimal care for patients and insisted on almost superhuman standards of care, which he applied to himself as well as to his residents. There is no question that his private practice, his primary source of income, suffered because of his devotion to the County.

William Silen

Silen was born in 1927 in San Francisco and was raised there. He attended local schools and completed his undergraduate degree at UC Berkeley. He was graduated from the University of California Medical School in 1949, took the straight surgical internship at UC, and completed its surgical residency program in September 1957. Ben Eiseman, professor at the University of Colorado and chief of Surgery at Denver General Hospital, recruited him to the University of Colorado faculty. In 1961 Leon Goldman brought Silen back to UC and appointed him chief of the UC Blue Surgical Service at the County Hospital.



Silen then embarked on a brilliant research career, primarily in the area of gastrointestinal physiology. As there were no animal research facilities at the County, Silen performed all his research in the laboratories at the University of California, San Francisco (UCSF) Hospital facilities. As was true during that period of time, Silen's academic salary was modest and he needed to supplement his income from private practice. As a result, he spent relatively little time at the County and he rarely operated with the residents. His primary contribution was leading Grand Rounds and organizing and running the teaching conferences on the Blue Surgical Service. He was an excellent teacher at all levels. He supervised the third-year medical student surgical curriculum and teaching at all the UCSF Medical School's affiliated hospitals. His command of the surgical literature was overwhelming.

A major contribution of his was getting a grant from the National Institutes of Health (NIH) for an animal research facility at the County, which

added two floors to the new pathology building being planned by the City in 1963–1964. The building was not completed until the fall of 1966, several months after Silen had left.

In 1966, Silen was offered the prestigious post of professor of Surgery at Harvard and chair of Surgery at Beth Israel Hospital in Boston. Medicaid and Medicare had been passed by Congress in November 1965, and many believed—Silen among them—that there was no further need for county hospitals. Silen wished his successor good luck and remarked as he left, “You will likely have the job of closing the hospital.”

TRAINING PROGRAMS

For most of the period after World War II, all of the internships at the County were rotating internships. During that time, all internships were separate from the residency and functioned independently of them. The County rotating internship consisted of balanced rotations through General Medicine and Surgery, usually two months each. There were one-month rotations on the ob-gyn, pediatrics, infectious disease, and tuberculosis services, varied surgical specialties, and the Laguna Honda Chronic Care Facility. Straight medical or surgical internships were available only at the two University Hospitals.

During internship, the intern had to decide whether to go into general practice or do a residency in one of the major specialties. To become a resident in a major specialty required an additional application process. If the intern liked what he saw in the local residency, he might apply there as his first choice. Otherwise, he was free to apply anywhere in the United States.

Before World War II, interns and residents (housestaff)—with few exceptions—were not married, and all housestaff were required to live in the hospital. A few managed to get around this rule by not advertising their ties and securing an apartment adjacent to the hospital, where they could respond to call with the cooperation of the telephone operators. After the War, many of the housestaff and housestaff applicants were older and married. To accommodate these interns and residents, the hospital allowed them to live outside the hospital when not on call. House officers were provided free meals, room and board, uniforms and laundry, and \$50–175 per month, depending on their level of training.

Cal and Stanford surgery residents came predominately from their own local medical school’s straight or rotating internships, but nearly one half came from elsewhere. There might be 10 or 15 interns seeking positions in the residency allied with their internship or an equal number of outside, well-qualified competitors. Shortly after the War, the chief resident and the two house officer positions on each Service were expanded to one chief resident, one senior resident, and four junior resident positions.

The residencies in both UC and Stanford were pyramidal. The Stanford system had two separate independent residencies, one based at Stanford University Hospital and the other based at the County. As both the UC and Stanford surgical programs reached maturity, both residencies gradually expanded. By the 1950s, the County’s Stanford program had four general surgery resident positions available in each of the first three years of a five-year program. This then tapered to one fourth-year senior resident and one fifth-year

chief resident. The UC portion of the program at the County contained an equivalent number of junior and senior residents. As the UC University and County surgical residents were combined into one training program, the total service contained double this number of residents at each level. UC elected to use their two senior positions at the County for two chief residents rather than one chief and one senior, as was the case on the Stanford Service.

The pyramidal program resulted in a very competitive system and could create morale problems when all the residents at any given level were competing with one another. However, during that time, a trainee did not have to complete all four or five years of residency to be eligible for Board certification. After three years of residency he—for there were no women in either program until the 1970's—could qualify to take the Boards if he also had one or two years working as a preceptor with a private surgeon. Moreover, Stanford had several additional fourth-year chief residency positions available. One was at French Hospital, another at San Mateo County Hospital. In each of these instances, a resident service was available that provided the necessary additional clinical experience for Board qualification.

The Stanford residency at the County rotated its junior residents to Stanford for experience in its clinics and on its private service working with full-time faculty. The Stanford University program, in turn, rotated its second-year residents to the County for emergency experience. UC, with its one combined program, rotated residents through their affiliated hospitals at all levels during their training. Each of four chief residents spent six months at UC or Franklin Hospitals and six months at the County.

A typical rotation for a Stanford resident in the County training program would be to spend the first year at Stanford, one-half of the year in the clinic and one-half on the private service. The second year entailed six months of pathology and six months on the Stanford private service. The third year was entirely at the County and consisted of two months each on Mission Emergency, female surgery and tuberculosis, male surgery, orthopedics, urology, and Children's Hospital East Bay. The fourth-year senior house officer primarily covered the female and tuberculosis wards and took one-half of the call on Mission Emergency during his last eight months. The chief resident was in charge of all General Surgery services but mostly spent time supervising male surgery and Ward I—the city employees' ward—and consulting.

From 1915-1966, housestaff provided day-to-day patient care. Housestaff were in charge of admissions and discharges; wrote orders for nursing care, laboratory tests, and xrays; and made the initial treatment decisions. Their consultants cleared all major cases by phone, including emergency procedures scheduled for the operating room. Problem cases were usually saved for presentation at Grand Rounds. The chief resident supervised the entire service, assisted by his senior resident. Except for the teaching day set aside for Grand Rounds and conferences, the attending staff, for the most part, were not in evidence but could be consulted by phone. Attending staff approved operative schedules and helped the senior residents with major cases when requested. Senior residents mostly supervised junior residents for operations of intermediate or minimal magnitude.

The chief resident had the first choice of all operations but usually confined himself to major cases. The senior resident had his pick of the remaining cases. At the start of any academic year, the senior residents absorbed

most of the cases, but as they became confident and secure in their operating skills, they passed more and more of the intermediate cases, such as simple cholecystectomies, appendectomies, and hernias, to the junior residents. An outstanding intern often was rewarded with a hernia operation or two and an appendectomy near the end of his time on the service.

The major teaching day on the Stanford Service was Wednesday. For the UC Service, it was Saturday. Grand Rounds for each service was held on the male teaching ward. The chief resident selected the cases for the chief of service's review and for general discussion.

The chief's medical student rounds followed Grand Rounds. The residents delegated a medical student to each case. A group of six to eight students would meet around a patient's bed to hear the assigned medical student give a detailed case presentation. The chief then quizzed the student on details related to diagnosis or treatment. Woe be to the student who had failed to do a rectal examination on the patient and the student whose presentation was sketchy or who was not prepared to discuss the pathology. The rest of the morning of the teaching day, and much of the afternoon, were devoted to specific conferences and teaching sessions.

THE BLOOD BANK

The County Hospital had its own blood bank, which drew and preserved blood for use by its patients. Irwin Memorial Blood Bank, sponsored by the Medical Society, took over supervision of the County's Bank after World War II. The rule was that residents who wanted to do major elective surgery could do so only if their Service's blood bank credits were positive. The junior residents were encouraged to solicit all relatives and visitors for blood donations. They would even solicit blood donations from patients about to undergo hernia repairs or other minor surgery by saying, "Even though major blood loss is unlikely, you never know." The Stanford residents were proud that they rarely had a case cancelled because of a lack of blood credits.

San Francisco General Hospital's blood bank was gradually closed by Irwin Blood Bank, primarily because the requirements for blood banks were progressively tightened. Sometime between 1972 and 1975 all blood drawing and blood storage was transferred to the Irwin Blood Bank.

THE OPERATING ROOM

Each Service had three operating room (OR) days. UC had Monday, Wednesday, and Friday. Stanford had Tuesday, Thursday, and Saturday. Esther Farrington presided as OR supervisor. She maintained strict discipline among the nurses and handled residents with a firm hand. There was no taking advantage of her—and if a resident did manage to cross her, it became difficult for that resident to get elective cases scheduled or done. In the evening, Ms. Dozebaba—Dozy—was in charge. It was imperative that a case scheduled after hours be a real emergency because, if a resident succeeded in bamboozling Dozy once, that resident never succeeded again. Reprisals could be interminable delays in the middle of the night when the resident was anxious to get a case into the OR. Once a resident had Dozy's confidence, however, Dozy was the soul of cooperation. Residents knew they was in good standing when they were told,

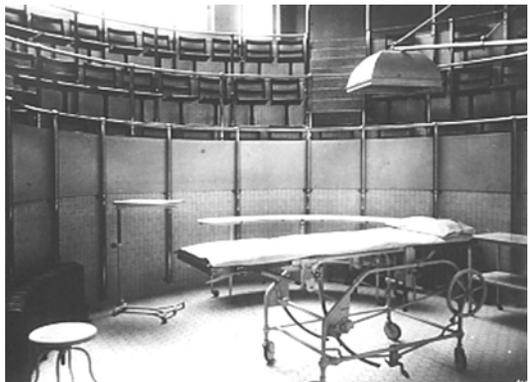
“Doctor, anytime you have a real bad emergency, just bring the patient right up. We’ll take care of it!”

The availability of anesthesia was constantly a problem. Anesthesia coverage was provided through a City contract with a private anesthesiology group who provided one anesthesiologist daily. The role of this anesthesiologist was to supervise the nurse anesthetists, who were recruited and paid by the County. As there were never enough nurse anesthetists, operations for such conditions as hernias, rectal cases, and operations that did not enter a body cavity were performed under local anesthesia.

Stanford always had more elective cases than UC, thanks to the larger number of referrals from Stanford’s Medical School clinics. It remained a constant challenge for both services to get their elective operations done because there was never enough time for the large backlog of cases. As a result, there was a great push to operate quickly. Most Stanford chief residents who had received all of their training at the County learned to complete cases with dispatch. This was given stimulus by Roy Cohn, who was famous for the volume of cases he did as a military surgeon. In his private practice, Cohn literally took minutes to do cases that took many surgeons hours to do. Victor Richards, at Stanford—to whom most of the residents were exposed—was also an extremely rapid surgeon. Unfortunately, there were occasionally Stanford residents who, while attempting to emulate Roy Cohn by making one slash through the subcutaneous tissue, would find themselves inside the bowel. This surgical style was in contrast to the strict Halstedian School that prevailed at UC under the stimulus of Glenn Bell, which emphasized the importance of extremely meticulous surgery.

For the most part, elective surgery was covered by the ward attendings. These were clinical surgeons on the teaching staff of the County who held voluntary clinical appointments. They would cover a male or female surgical ward for two to three months each year, making rounds one or two times a week and assuming responsibility for all elective surgery. The chief resident was responsible for contacting the attending and notifying him each evening of the cases proposed for the next day. The attendings had the option of coming in on their own for an interesting case or could delegate the entire responsibility to the chief resident. The chief resident could request the attending’s help if the operation was new or he did not feel comfortable doing it by himself.

The senior residents usually helped the junior residents on cases of lesser magnitude, such as hernias, rectal cases, or cases involving the skin or subcutaneous tissue. As the chief resident on the Stanford service usually supervised the male ward, most of his major cases came from there. The senior resident who supervised the female and tuberculosis wards usually took the major cases on those wards and did the many bronchoscopies



SURGERY EAST AMPHITHEATRE

requested by the tuberculosis service.

Under Esther Farrington, the OR was a model of efficiency. When the nurses were not actually scrubbed for cases, they threaded needles, folded laundry, cleaned and sterilized the instruments, and prepared sterile packs, even while circulating. Everything was reusable. Nothing was disposed of.

Each operating room was wide open to the hospital corridor, and there were no doors on individual operating rooms. The consultants would walk into surgery in street clothes and enter the operating room proper. In deference to one aspect of bacterial control, they might pull the lapels of their coat over their mouths while they looked into the wound and ask the resident in charge, “How are you getting along? Need any help?”

It was of interest that, when Surgery moved into the new Hospital in 1976—with its carefully controlled environment, positive pressure ventilation, and all the accepted present-day sterile techniques—the infection rate, which was always acceptable, did not change one iota.

TUBERCULOSIS SURGERY

One of the major advances in surgery after World War II was thoracic surgery. Inflammatory disease, most notably tuberculosis (TB), was responsible for the development of chest surgery as a separate discipline. There was no more difficult surgery than surgery for chronic inflammatory chest disease. Two previous chiefs of Surgery at the County, Brunn and Eloesser, had successful careers based on their innovative thoracic surgery. Indications for surgery were advanced cavitory disease, recurrent hemoptysis, and persistent positive cultures despite antibiotic therapy. Patients with positive cultures were hospitalized for months or years, many as the result of legal action, to prevent spreading the disease to the general populace. There was nothing more dramatic than massive hemoptysis, a primary cause of death that occurred in patients with advanced tuberculosis. Its primary treatment was sedation and cold packs to the chest wall. A surgical team was often mobilized to do cut-downs in order to administer blood and participate in the resuscitation. Emergency surgery was out of the question in most instances because, when the patient was rendered unconscious for surgery, he or she would drown in the blood in the tracheobronchial tree. No partial occluding endotracheal tubes were available, although, in instances of a hemorrhage on the right side, an endotracheal tube could be forced down the left main bronchus to isolate it for ventilation while surgery was performed on the opposite lung.



TB Cavitory Disease

With the introduction of antibiotics after World War II—particularly streptomycin and paraminosalicylic acid (PAS)—it was possible to stop the ravages of tuberculosis. PAS, administered as an oral liquid, was foul tasting. The gardeners could never quite understand why they could never get flowers to grow outside the windows of the tuberculosis building—until the nurses

With the introduction of antibiotics after World War II—particularly streptomycin and paraminosalicylic acid (PAS)—it was possible to stop the ravages of tuberculosis. PAS, administered as an oral liquid, was foul tasting. The gardeners could never quite understand why they could never get flowers to grow outside the windows of the tuberculosis building—until the nurses

administering the PAS ultimately learned to stand by to ensure that patients actually swallowed the drug.

The development of isoniazid (INH) in the early 1950s gave physicians three effective drugs that, when used in combination, solved the problem of rapid drug resistance when only one or two drugs were used. Control of positive sputum prevented systemic spread of TB or its spread to previously uninvolved portions of the lung. However, there were some patients with advanced cavitory disease who did not respond to antibiotic therapy. Those patients constituted a group in which surgery combined with antibiotic coverage offered the best prospect for cure of a stage of TB that, until this time, had been universally fatal.

Patients too sick for any consideration of operation were treated by “medical collapse” therapy. Initially, a pneumothorax was used to try to collapse lung cavities, and it was somewhat effective. Pneumoperitoneum, however, proved to be a superior therapy. By elevating the diaphragm, the lung was collapsed upward, and this tended to reduce the size of the larger apical cavities, which facilitated healing.

For patients who were a little better risk, direct collapse therapy by thoracoplasty was far more effective and could even be done under local anesthesia. The operation was performed in one or two stages, depending on the anticipated tolerance of the patient. For many patients, the removal of four and one half upper ribs at one stage was optimal. However, a two-stage operation was better tolerated: Initially the first two ribs and the posterior half of the third rib were removed; an additional two or three ribs were removed one month or six weeks later. Sometimes thoracoplasty was used in conjunction with upper lobectomy. The thoracoplasty decreased the pleural space and lessened the risk of complications because the remaining lung could then expand sufficiently to ensure that it would fill the chest cavity.

Upper lobectomy was the treatment of choice if the patient was perceived to have sufficient strength and pulmonary reserve to tolerate the more extensive surgery. This effectively rid the patient of cavitory disease and was the optimal treatment, particularly when only one lung contained advanced disease. Middle lobectomy and/or superior segmentectomy of the lower lobe were necessary occasionally, when upper portions of the lung were also being removed.

A senior resident did all the tuberculosis bronchoscopies in the back corridor of the operating room. One day a week was reserved on each service for bronchoscopies. These operations were done with the patient under local anesthesia by using a rigid bronchoscope. Usually, there were two to four procedures performed each week at a major “cough and gag” session. However, by mid year, the senior resident was extremely slick and could perform a procedure in 10–15 minutes.

Although surgery, particularly thoracoplasty, had been used minimally before World War II, the apogee of lung surgery came in the late 1940s and the 1950s, after the availability of antibiotics. Subsequently, early case finding and the use of antibiotics resulted in fewer operations, and TB surgery phased out gradually during the 1960s.

GENERAL SURGERY PROCEDURES

Gastric surgery was at peak incidence from 1945–1966. Gastrectomy was the second most common major abdominal operation performed at the County—the most common being open cholecystectomy. The primary indications for gastrectomy were peptic ulcer disease and gastric cancer.

The standard operation for ulcer disease was a distal two-thirds gastric resection. Initially the Billroth II procedure—gastrojejunostomy—was the reconstruction of choice. It was thought to be easier and safer than the Billroth I procedure—gastroduodenostomy. Dwight Harken, in Seattle, promoted the Billroth I procedure as a much better operation physiologically; Mathewson agreed and popularized the procedure in San Francisco, demonstrating the operation at Wet Clinics before the American College of Surgeons in the mid 1950s.

In the later 1950s, truncal vagotomy in conjunction with antrectomy—distal fifty percent gastric resection—proved itself to be associated with fewer recurrent ulcer problems and was used for patients with the most intractable disease. Although vagotomy and pyloroplasty had been introduced at this same time by Weinberg in Los Angeles and was being used locally by Brizzolara at the San Francisco Veterans Administration (VA) Hospital, it was not yet applied at other San Francisco hospitals.

ONE RESIDENT'S OPERATIVE EXPERIENCE FROM 1954-1959

Head and neck	22	Anorectal	22
Thyroid	15	Pilonidal	10
Thoracic	50	Hand	16
Thoracoplasty-tuberculosis	19	Pediatric	34
Lobectomy tuberculosis	6	Plastic	17
Pneumectomy tuberculosis	6	Orthopedic	27
Pulmonary lobectomy cancer	11	Gynecologic	9
Supraclavicular fat biopsy	8	Vascular	58
Bronch/esophagoscopy	>100	Vein stripping	18
Cardiac (open resuscitation)	5	Portal decompression	7
Breast	12	Sympathectomy	7
Benign resection	5	Embolectomy	5
Radical mastectomy	7	Carotid ligation	3
Hernia	72	Aortic aneurysm	2
Inguinal, femoral, umbilical	64	Iliofemoral bypass/enarterectomy	11
Incisional	8	Femoral popliteal	4
Laparotomy, diagnostic	22	Carotid endarterectomy	1
Gastric	38	Neurosurgical	17
Gastrectomy ulcer	25	Burr holes/craniotomy	14
Gastrectomy cancer	6	Laminectomy	3
Perforated ulcer	7	Trauma	27
Appendectomy	19	Gunshot wound abdomen	10
Hiatal hernia	2	Gunshot wound vascular	2
Biliary	41	Stab wound chest	1
Cholecystectomy	20	Stab wound abdomen	7
Cholecystectomy and common duct exploration	21	Stab wound vascular	3
Pancreas drain or resection	4	Blunt abdomen	3
Bowel obstruction	9	Blunt chest	1
Colon	22	Miscellaneous	3
Colostomy	3	Perfuse leg melanoma	1
Colectomy	13	Hip disarticulation	1
A-P resection	6	Adrenalectomy	1

Biliary tract surgery also represented a significant portion of the operating room schedule. Open cholecystectomy was the most common major operation, slightly exceeding gastrectomy. Simultaneous common duct explorations were performed in nearly one half of the cholecystectomies. This was probably because indigent patients had a much longer history of neglected disease, and indirect methods of assessing the common duct had not proved to be reliable in ruling out common duct stones.

Operative cholangiography was introduced late, but was rarely used at the County because of the difficulty of getting appropriate xray equipment for the operating room.

Vascular surgery procedures in the 1940s and early 1950s were limited to varicose vein surgery, portacaval shunts, embolectomy, and lumbar sympathectomy. Direct arterial surgery began only in the late 1950s. Charles Dubost, in France, performed the first abdominal aneurysm resection in 1951. Although Jack Wylie at UC introduced aortic endarterectomy in the United States in 1952, the operation had only limited application. The problem was that there was no real satisfactory aortic prosthesis until Michael E. DeBakey demonstrated the superiority of the Dacron graft in 1958.

The Stanford Service introduced angiography to the County in 1957. Angiography involved placement of a #18 spinal needle into the suprarenal or infrarenal aorta percutaneously through the back, with the patient prone on the xray table. The needle was placed suprarenally if the patient had no femoral pulses; otherwise, it was placed infrarenally.

The primary arterial prosthesis used in San Francisco between 1951 and 1962 was the arterial homograft. The County was not about to purchase expensive plastic grafts that had not yet been proved effective. In 1957, Frank Gerbode—chief of Cardiovascular Surgery at Stanford—approached the County surgery residents with a plan to establish an artery bank at Irwin Memorial Blood Bank. Each participant would harvest arteries from patients undergoing autopsy at their hospitals. These arteries would be preserved by freeze-drying and sterilized by irradiation. When surgeons needed a graft of a certain size, they could order it from the blood bank. The senior residents at the County went to work with enthusiasm, securing permission for the removal of arteries from a large percentage of deceased patients—but when they had a good candidate for a femoral bypass graft, they called the blood bank only to find that the bank had been overdrawn. Despite their contribution of dozens of arteries, not one was available. It seemed that the County Hospital banked the arteries and the other hospitals, principally Stanford, withdrew them. The residents' refusal to harvest more grafts resulted in successful negotiations to ensure that one graft of each size submitted would be saved for use at the County. When the homograft bank was no longer needed, the blood bank returned a large number of freeze-dried grafts to the County surgeons.

From 1958-1966, vascular surgery began to have a major role in residents' operative experience. Sheldon Levin, who had trained at Columbia, initiated a vascular program for the UC Service at the County in 1958.

Oral and laryngeal malignancies were common afflictions of patients at the County—most occurred in alcoholics and heavy smokers. Local excision was associated with prompt recurrence. On the East Coast, Memorial Hospital in New York City had shown that advanced oral cancers could be cured if the

excision were radical enough. For tongue, alveolar-ridge, floor-of-mouth, and buccal malignancies, the so-called “Commando” operation resulted in a cure for disease that had previously proved fatal. John Anlyan, a Memorial Hospital-trained cancer surgeon, appeared on the scene in 1957 and offered his expertise to the Stanford Service. Nearly simultaneously, Maurice Galante at UC mastered the operation and brought it to the County’s UC service.

Thyroid surgery was one of the common major procedures done by the senior and chief residents. Hyperthyroidism was treated surgically then, although in the late 1950s and early 1960s, the merits of radioactive iodine were being debated and a few patients were being treated successfully with it. The problem was that radioactive iodine had the theoretical risk of late malignancy, and it took several decades to prove that this was not a significant problem. Two thirds of thyroid operations were for adenomas and malignancies, but hyperthyroidism was the ultimate challenge in the remaining one third of cases. The introduction of propylthiouracil resulted in the control of toxicity after six weeks or more of treatment, but this therapy left a large, very vascular thyroid gland. Potassium iodide administered to the patient during the last week of preparation for surgery markedly decreased the vascularity of the gland and rendered the thyroid more easily and safely dissected.

Potassium iodide and propylthiouracil were not 100% successful by any means, and the feared complication of a thyroid storm that had plagued the operation in the 1920s and 1930s, was still a hazard. During a thyroid storm, a patient would become flushed, sweaty, hypertensive, tachycardic and hyperthermic a few hours postoperatively and run a temperatures as high as 106 degrees. If the crisis was severe and the patient did not respond to treatment, eventually prostration, hypotension and death occurred. Sympatholytic drugs, sodium iodide, sedatives, and cold baths helped alleviate the symptoms and save patients.

Trauma surgery was not a major part of the emergency operating room schedule. One resident’s total number of trauma operations in an 18-month period in 1958 and 1959 was 27 (Table 1). If this experience were shared by the fourth- and fifth-year Stanford residents and a similar number occurred for UC fourth- and fifth-year residents, there would have been fewer than one hundred operations for trauma a year in total, or approximately one and one half operations for trauma per week. The City was not a violent place then—most trauma occurred in the ghettos or among family members. The standard bar fights resulted in beatings, although knifings also occurred.

Open cardiac compression was used to resuscitate sudden arrest in medical and surgical patients, but was discontinued when closed cardiac massage—introduced in 1960 at Johns Hopkins Hospital—was popularized nationally. Open resuscitation was rediscovered at the County in 1970, when exsanguinated trauma patients failed to respond to closed-chest technique. Afterward, closed cardiac compression was used primarily for medical cardiac arrests.

Charles Huggins introduced *bilateral adrenalectomy* for advanced carcinoma of the breast—it was used a few times during this period. Jack Connolly followed Oscar Creech’s example in New Orleans and introduced *isolation chemotherapy perfusion of a limb* for melanoma both at Stanford University Hospital and at the County.

Hand surgery was exclusively the responsibility of general surgery and included repair of all complex hand lesions. General surgery also did all *plastic surgery*. Pedicle grafts were the primary means used to replace major tissue defects.

Neurosurgery was still part of general surgery, both at UC and Stanford. The chief surgery resident did the burr holes, craniotomies, and laminectomies.

Gynecologic surgery was a separate specialty, but surgery residents could usually “steal” patients who had tubo-ovarian abscess and some who had ovarian tumors. It also was common for general surgeons to trade a bowel operation for a hysterectomy with the chief ob-gyn resident.

THE CLINICS & THE EMERGENCY ROOM

Most of the patients hospitalized at the County were referred from the two University outpatient clinics or from the emergency room. The City and County relied on UC and Stanford’s free clinics to provide outpatient care and did not provide space or support for proper clinics of its own. At the County, there was only one major clinic area for use of all services. It was located in the basement of Building 80. Each Surgical Service had one-half day a week to see patients who needed a follow-up visit. If patients needed attention any



Old Mission Emergency

other day, they were seen in the Ward Treatment Room. Patients needing long-term or recurrent care were referred to their respective University clinics.

Patients seen in the University clinics, who needed emergency hospitalization if they were truly indigent, were referred to the County. Those who could afford the cost of ward care might be admitted to the respective University hospital if a bed was available.

A triage clerk—Pat Brown—screened patients who came to the emergency room. Patients who qualified as a true emergency were asked to sit on a long wooden bench to await their turn for examination and treatment. Those with elective or semi-elective problems were referred to one of the Universities’ outpatient clinics. Those patients brought by ambulance were admitted directly to the male or female emergency ward.

As there were no other emergency rooms in other hospitals in San Francisco before 1966, the County was responsible for all emergency care and all emergency ambulance transport. Emergency care was provided throughout San Francisco free of charge by the citywide system, which consisted of the primary emergency room—Mission Emergency—and four other “Emergency Hospitals” scattered throughout the City. These hospitals were Central, located adjacent to City Hall; Harbor, located on the downtown waterfront; Park, located on the eastern edge of Golden Gate Park; and Alemany, located in the southwestern part of the city. They were all staffed by surgeons—graduates of

the County surgery residency by preference. At these hospitals, minor emergencies were treated and first aid administered. If a patient needed hospitalization and had private funds, a private physician was contacted and the patient was transferred by private ambulance to a private hospital. If the emergency was critical or the patient was indigent, the patient was transported by City ambulance to Mission Emergency, which was attached to but administratively separate from the City and County Hospital.

Until the end of World War II, the emergency system in San Francisco functioned as an independent entity supervised by two surgeons, Butler and Rhoads. In the 1920s and early 1930s, they did all the major surgery. Gradually, they turned over most cases to the chief residents, the exception being those cases of politically prominent patients. Rhoads died in Europe during World War II. After the War, with the return of well-qualified surgeons with war experience to the County staff, Butler turned over responsibility for Mission Emergency to the Universities. He continued to administer the peripheral emergency hospitals and ambulance system until his death in 1954. At that point, as a money saving measure, the director of Public Health turned over responsibility for administering the system to the chief ambulance steward.

As had been true since the County Hospital was opened in 1915, each University's housestaff covered the emergency room on alternate weeks. During their respective week, all team members stayed in-house to cover the inevitable epidemic of emergencies. The emergency room proper was staffed by two teams, one team from each University. Each team was composed of a third-year surgery resident, a first-year medical resident, two interns, and assorted medical students from the service not on call that week. The junior residents from the responsible service covered the busier night shift (5 PM to 7 AM). When it was Stanford's turn, its chief resident covered all seven days, 24 hours a day for the entire week; the senior house officer was allowed to share coverage during the last eight months of the year. When UC had two chief residents at the County, the UC Service rotated them on alternate days during their week of coverage. Each Service had a consultant who covered the entire week. UC rotated their emergency attending from month to month. Roy Cohn covered all Stanford Service emergency weeks from 1946-1959, when he moved to Palo Alto with Stanford Medical School.

Typically, the emergency room attending was called for any patient who required an operation or whose diagnosis was questionable. In most instances, the chief resident was given the go-ahead to proceed on his own. The attending would come in for difficult or life-threatening cases. When Roy Cohn was at the County, the residents never really knew when he was coming in for sure, but Roy had the knack of always showing up when a resident was in trouble. When Roy arrived during the night, generally he would first proceed quickly through the emergency room to survey all cases and assess whether the junior residents and medical students were in place. Only then would he proceed to the OR.

There were many patients presenting to the emergency room who did not need emergency surgery, but who needed hospitalization. Among them were patients with chronic infections or chronic leg ulcers with cellulitis—they were referred to as grumous admissions or "grumes." By agreement, grumes were alternated between the two University services. The admitting triage officer—

WARD CARE

From the time the County Hospital was built and dedicated in 1915 until major remodeling was instituted in the 1960s, the wards in the main hospital were alphabetized rather than numbered. The exceptions were the top floors of each of the four wings that were added long after the original hospital opened in 1915—these were numbered I through IV. Thus, the first clinical building contained Wards A, B, C, and D, with the top floor being ward I. In 1954, bonds were passed to remodel the hospital. As remodeling was completed, each ward was given a number corresponding to blocks 1–4, and the second number was the floor in the block; therefore, Ward C became Ward 13 and Ward IV became Ward 45. The wards were arranged so that each University Surgical Service had one male ward and one combined female orthopedic/general surgery ward. There was a male orthopedic ward for each service. Ophthalmology and ENT had a shared ward for each service. Each University service had a male urology ward and a shared female urology-gynecology ward. Neurosurgery was an integral part of General Surgery.

The controversial area, as far as the residents were concerned, was the Municipal ward, Ward I. Municipal workers were covered by County insurance for illness and injury, and Ward I was where they were treated. Ward I consisted of a combined clinic and hospital ward. The senior faculty were paid to provide surgical care, but—except for doing the operative procedures—all initial evaluation and postoperative care was turned over to the chief residents.

A junior resident and two interns provided the primary care on each surgical ward. The female ward was always less busy than the male ward, so its housestaff also covered the consultations on the tuberculosis ward.

The male and female General Surgery wards were presided over by a martial chief nurse. Crossing her could ruin a surgical career. The attendings reminded the residents and interns that they were in plentiful supply, but chief nurses who were willing to stand up to the rigors of County Hospital nursing were few and far between.

The wards were wide open and had a variable number of beds. There were no curtains to screen the beds because—although 24 beds were optimal—when the numbers of patients admitted increased, beds were pushed closer and



Surgical Ward "C", Mathewson & Intern



closer together until they were separated only by a nightstand. Then, if necessary, beds were placed longitudinally down the center of the ward—and then, if still necessary, down the halls. The most crowded wards were the medical wards in the winter, when patients with acute infectious illnesses, such as the flu, filled the beds. There were instances in which one of the two elevators was stopped at the medical ward and used temporarily as an isolation room.

Nursing coverage was minimal and the hospital was always short of nurses. There were times when nurses could not be hired and nursing coverage would drop until some scandal developed that resulted in an analysis of the cause—inevitably low wages and long hours. The Board of Supervisors would then reluctantly vote a pay raise and benefits reasonably comparable with those of the private sector. At that time, positions would be filled—only to go into slow decline as wages and conditions at outside hospitals rose to render the County noncompetitive again. Therefore, the primary role of the director of Nursing was recruitment. Each ward and division, such as the operating room, constituted a separate nursing fiefdom and functioned, for the most part, independent of the rest of the Nursing Service.

In addition to the chief ward nurse, who worked a 12-hour day six days a week, there might be an additional junior nurse during the day, as well as student nurses from one or more of the nursing schools. Also, there were one to two orderlies per ward. However, at night, there was usually only one nurse for several wards and patients tended to look after themselves. The large open ward provided considerable safety because the chief nurse, with a glance down the ward, could ascertain patients in trouble. Most postoperative or extremely ill patients were placed closest to the nursing station, located at the entrance to the ward. Patients would identify other patients in distress and seek help for them. ICU's did not exist in San Francisco prior to the late 1960's.

A common bathroom opened off the middle of the ward into a separate attached tower. A treatment room was located immediately next to the ward entrance, where new admissions were worked up and where special procedures were performed. There also were two private side rooms, each accommodating two patients. These were usually reserved for dying patients, those who required isolation for infections, or patients with dramatic problems such as hematemesis from esophageal varices. There was a small kitchen where meals delivered from the main kitchen could be warmed and where coffee was prepared. The nurses used this small kitchen as a conference room. In addition, there was a ward laboratory where the interns and medical students did urinalyses, blood counts, and bacterial smears.

Until 1960, there was no clinical laboratory provided by the County. Each University was responsible for its own special lab, and both were located on the third floor of the emergency building. Stanford had one lab technician who did blood sugars, blood urea nitrogens, electrolytes, and cultures during the regular workday. The junior medical resident on call was responsible for doing these lab tests after hours and on weekends. The UC laboratory was better equipped, had two technicians, and had a broader range of tests and hours. The interns were responsible for doing the blood counts, urinalyses, and bacterial smears. However, these chores were readily passed to the medical students when they were on service. In fact, many interns, when drawing for their schedules, would try to ensure that the medical school was in session on the month when they were going to be on a busy service, such as Medicine.

The junior surgical resident assigned to a ward, and his two rotating interns, made rounds early in the morning and then again in the evening. The residents on the male and female wards rotated nights off on their non-emergency week. On emergency weeks, both remained in-house. The interns covered their own wards and did the detailed clinical histories and physicals on the admitted patients. The junior resident provided a brief covering note for each patient.

The headquarters of the Stanford Surgical Service was in the solarium off of Ward C. UC's headquarters was in the solarium off Ward F. The chiefs of service each had a small office in the solarium, as well. Each service hired a secretary to type its operative notes and look after students' and residents' schedules.

TEACHING CONFERENCES

Grand Surgical Rounds were held on the male surgical wards. Stanford held its Grand Rounds on Wednesdays. UC had its Grand Rounds on Saturdays. Grand Rounds for both Services was the event of the week. An xray view box was wheeled to the front of the ward, and the area around the nursing station was cleared. The chief resident's job was to compile a list of three or four of the most instructive cases for presentation. One of the junior residents was assigned to ensure that all pertinent xrays were present and that the lab work was updated and collated. The patient involved would have his bed wheeled to the front of the ward, or, if from another ward, would have his or her gurney wheeled into the middle of the group during the clinical presentation and subsequent discussion.

It was traditional that all of the voluntary attendings, who were ward consultants, be present. Letterman Army surgical staff and their residents were inevitably present for Stanford Rounds—Mathewson had started the Letterman Army residency after World War II and traditionally spent Tuesdays there as chief consultant. Of course, all students, interns, and residents on each service were present, a gathering of 30-35 people, all standing and observing proceedings as best they could.



Surgery Grand Rounds on Ward C

Stanford rounds started with a detailed presentation by one of the residents, accompanied by a review of the pertinent laboratory and xray findings. After this, Matty—Dr. Mathewson—would conduct a filibuster regarding the case. It usually went on far too long for the senior residents, who usually had heard the lecture many times before and could give it verbatim themselves. The housestaff, who had been up all night, often fell asleep while standing, and occasionally there would be a crash as a dozing resident lost his footing. As a result, the chief resident attempted to find something new to present, avoiding pancreatitis and biliary obstruction—Matty's favorite subjects. After the chief's presentation, Roy Cohn would be called on, but Roy never

commented with more than a sentence or two. Then the ward consultants were called on to comment or ask questions, but there was little argument with the chief. The chief resident was allowed to ask questions or comment. On rare occasions, the senior house officer would have the audacity to comment—if he did, inevitably he would be passed a note from Cohn that said, “Shut up.” Finally, a recommendation was given for the patient’s management, at which point the bewildered patient would be wheeled away and the next patient wheeled into place. After the formal presentations, which usually lasted about an hour and a half, the group broke up and the chief would make casual rounds of all beds and inquire about the patients' pathology. In Dr. Mathewson's case, he would, at this point, select three or four cases for his medical student rounds that followed. The chief spent the remainder of the day at the hospital participating in other organized conferences, such as Tumor Board and the Morbidity and Mortality Conference.

Tumor Board on the Stanford Service was one of the highlights of the week. It convened on Wednesdays at 11 AM in the classroom in the former nurses' quarters. Harry Garland was Stanford's chief of Radiology, and his major interest was xray therapy. He had been very aggressive in pushing his specialty, initially using standard 250-kV xray diagnostic equipment. However, in 1955, he convinced an affluent private patient to fund a cobalt unit. This machine could generate a special form of high-energy radiation that penetrated tissues better and was the first cobalt unit in San Francisco.



SFGH Conference Room

In 1957, a new surgical consultant at the County, John Anlyan, began countering Garland’s enthusiasm for xray treatment of lesions. Anlyan had just completed his surgical training at Memorial Cancer Hospital in New York and was a strong advocate of radical surgical treatment. Therefore, the residents looked forward to the weekly debate between the two, obviously favoring radical surgery, which was the established method of cure for most of the cases being discussed. This was a drawn battle because Garland, with his Irish charm and wit, managed to snare a fair proportion of cases as a result of the voting by neutral participants, including the medical oncologists—their having little to offer in the way of a cure at that time.

Radiology Conference was another of Garland's conferences that the residents enjoyed. This was a medical students’ teaching conference held at 10 AM. All residents usually attended because they could anticipate some kind of fireworks, as Harry loved to bait the housestaff with tricky or obscure xrays. They might consist of an apparent lung tumor, which—if the lateral film as well as the anterior-posterior film were viewed—proved that the tumor was a nipple shadow or a mass on the chest wall. Many of the senior surgical residents had memorized all of Garland's tricks, so Harry neglected to call on them and preferred using medical residents as his “patsies.” The conferences were

stimulating, and Garland made many excellent teaching points that were long remembered.

Tuberculosis Conference was held weekly on Wednesdays at noon and was conducted by William Lister “Lefty” Rogers. Rogers had been Leo Eloesser's junior associate until Eloesser retired. Rogers devoted himself to thoracic surgery practice at French Hospital.

At the weekly Chest Conference, all tubercular patients who might benefit from surgery were presented. Tuberculosis (TB) characteristically was most extensive in apical segments of the upper lobes and superior segments of the lower lobes. Thus, the disease lent itself to surgical excision once the acute process was controlled by antibiotic therapy.

As the conference was held at noon, nearly everyone brought a lunch. As part of the patient's presentation, a cup of the patient's sputum was passed around for observation. Rogers would hold a sandwich in one hand and tip the sputum cup with the other so all could observe the grayish necrotic or bloody debris. Then the masked patient was brought in and quizzed by Lefty. Thereafter, there would be discussion about the patient's surgical risk, and appropriate therapy would be decided upon.

Often, patients who had undergone surgery were presented at the TB Conference and the surgical results discussed. Many times, a patient had undergone a series of procedures involving both sides of the chest. Lefty would palpate the thoracic incision and, in his raspy voice, comment, “Hey there, feel this defect medial to the scapula. You boys didn't close the rhomboids.”

Morbidity and Mortality Conference was regarded as an excellent teaching conference by both Services, but it was one that the residents dreaded if their patient had developed a preventable complication. Any oversight or evidence of neglect in preoperative or postoperative patient care was sharply dealt with. Reasons for wound infections were sought, and failure to properly recognize and deal with a complication was harshly criticized. Dishonesty, however, was the cardinal sin. Any suspicion of dishonesty led to a private meeting in the chief's office. Private meetings were dreaded and, once chastised, the offending resident was most unlikely to repeat the mistake.

On the Stanford Service, following the Morbidity and Mortality Conference, there was a resident's presentation on some formal subject. Finally, a review of an anatomical dissection was presented by one of the junior residents.

Mission Emergency Rounds were held by Clayton Lyon at 7 AM on Saturday mornings. The students were expected to have worked up all the surgical cases, and they presented them in turn. All residents and interns on the service were expected to be present. The cases and the residents' care of them were critically discussed and analyzed. Lyon was extremely knowledgeable about all aspects of emergency care, particularly trauma—but he was so hard on the housestaff's oversights or perceived neglect that many patients were transferred to other parts of the hospital before rounds.

Pathology Conference, organized by Bill Silen, was one of the most outstanding teaching conferences on the UC Service. Once a week, the pathologists projected the week's pathology on the screen. The housestaff were asked to identify the tissue and then the pathology. The combination of Silen's knowledge of the literature and the pathologists' expertise made the conference a real delight.

SOCIAL ASPECTS

Housestaff quarters were located in the middle of the four towers that housed patients' wards, on the second and third floors of the Administration Building that fronted on Potrero Avenue. Quarters included a small library and a billiard room. The housestaff rooms were large and accommodated two residents or interns. There was a common bathroom on each floor. The two chief residents' quarters were a suite of rooms located on the opposite front corners of the third floor. These rooms were popular sites for social gatherings for residents and interns during their emergency week.



SFGH Administration Building
"320 Club" Third Floor left

Outdoors, behind the two south towers, was a tennis court that was used night and day. When the court was turned into a parking lot, the hospital built a volleyball court in the yard between the Infectious Disease Building and the nurses' home. The court was located on the back northeast corner of the property, where the Pathology Building is now. A telephone was provided, as the overhead page could not be heard outside of the building.

Physicians were sought in the hospital by an overhead page used by an astute group of telephone operators who mastered the art of locating interns and residents. Needless to say, unusual locations, especially those out of the hospital, dictated notification of an operator who would hold calls and cover for their favorite residents when their chief wanted them located "right now."

Several of the residents were successful in renting homes immediately outside of the hospital, on 22nd Street, and could take emergency call from there. Most residents lived in the hospital—the single housestaff all year long, and those who were married only when they were on emergency call. Wives and children were welcome for a free evening meal, and wives often joined their husbands for dinner, especially on the weekends. When word got out that something special was on the menu, such as steak, the dining room was particularly crowded. In the early part of the month, meals could be excellent, but if money ran short at the end of the month, meals could be abominable. Four meals a day were served, the last one at 11 PM. There was usually a last-minute rush for those on emergency call before the dining room closed at midnight.

There were two dining rooms—a medium-size one in front of the kitchen, which bordered on the main hall where the housestaff and attendings took their meals, and a large one behind the kitchen for all other staff. All meals were free and the attending staff made liberal use of the dining room, particularly for breakfast and lunch.

Lunch, in particular, was a social event. Residents exchanged information about interesting patients with the attendings. Consultations were requested and often provided on the spot. Sports pools were conducted, and good-natured rivalry and jesting went on regarding the success or lack of success of the Cal and Stanford football, basketball, and baseball teams. Usually, around Big Game time, the football rivalry maximized, and fans of both teams played good-natured pranks on each other.

As a whole, the Stanford residents were perceived as a “looser group” than the UC residents. One reason was that Stanford’s residency was based full-time at the County, so the Stanford residents became comfortable with the quirks and dogmas of their attendings. UC residents spent roughly one half as much training time at the County and were not as fully adjusted to the system. Interestingly, this same observation applied to the UC and Stanford medical students taking parallel courses at the County—UC medical students were noted for their tight sphincters, whereas Stanford students were more easygoing. This might have been a reflection of the security or insecurity of their respective residents.

One example of the social life of the resident staff related to a regular event on the Stanford Service. The Stanford chief resident inherited a large crock for making beer from his predecessor. Once or twice a year, in a non-emergency week, the Stanford housestaff would gather at the home of the chief resident and brew a batch of beer. The ingredients were obtained from Al’s Beverage Shop on 24th Street, a residue of prohibition where, hop-flavored malt, corn sugar, and yeast were purchased. The production involved two teams of workers. Some cleaned one-quart, glass soda bottles that had been saved for weeks while others prepared the mixture. Because beer took about 10 days to mature, the mixing session was held at the end of the non-emergency week so as to ensure the availability of a bottling team 9–11 days later.

A hygrometer was used to test the specific gravity of the mix daily, and when it had dropped to the point that suggested most of the sugar had been converted to alcohol, an emergency bottling session was held. Ideally there was a bit of fermentation left so that the final fermentation carbonated the brew. Should bottling occur too soon, an explosive mixture resulted, which—according to history—had ruined all the clothes in one resident’s closet and, in another instance, had resulted in a smelly basement. At a suitable time, several weeks later, the group once more convened to sample the product and participate in what was inevitably a very lively party.

Although the interns and residents worked very hard and had very long hours during this time, there was a tremendous *esprit de corps*. The long hours bound them together as a team. The housestaff’s wives got together in self-defense and had their own socials and kiddy exchange. Everyone was in the same boat—all had a goal in mind and were working successfully toward it. There were family problems and divorces, certainly, but the families who

survived the ordeal of training were stronger for it, and surprisingly few marriage dissolutions occurred.

AMERICAN COLLEGE OF SURGEONS “WET CLINICS”

Every three years, the American College of Surgeons met in San Francisco. The most popular program was the Wet Clinics put on by either Stanford or UC, inevitably at the County. Wet Clinics were a “Roman circus” and became extremely popular when the introduction of television permitted operations to be filmed and transmitted to the major downtown auditorium. Each University, in alternate years, picked the program—usually standard operations of the greatest interest to attendees. It was a grand spectacle and showcased the surgeons involved. In one Stanford year, Victor Richards put on a dazzling demonstration of a radical mastectomy. This operation was performed in 30 minutes, during which his only instrument was the knife. His assistant operated the electrocautery unit that coagulated the “bleeders” that Richards controlled with the handle of his scalpel.

The same year, Mathewson demonstrated a Billroth I gastrectomy. The problem was that he was so busy talking to the panel, who were observing and commenting on the operation, that he inadvertently anastomosed the side of the proximal stomach to the duodenum, leaving the distal stomach still attached. The anastomosis had to be taken down and redone after amputation of the distal stomach. Mathewson, with much aplomb, said, “This just goes to prove that you can’t talk and operate at the same time.”

An equivalent Wet Clinics disaster occurred on a UC year, when the chief of Cardiac Surgery offered to do a hernia for the meeting. The residents had found a patient with a massive scrotal inguinal hernia that they thought would make a dramatic presentation. The problem was that the senior surgeon did not check out the case in advance. When he arrived and found the patient already prepped and draped, he commented, “Why did you put the patient to sleep? I wanted to demonstrate how the operation is done under local anesthesia.” When he made the incision and opened the hernia sack, he found that the sigmoid colon made up the posterior sack wall, a sliding hernia! To complicate the procedure, the anesthesiologist—having been berated for putting the patient to sleep—had allowed the patient’s anesthesia to become light and, at that point, the patient eviscerated. The rest of the televised portion of the operation consisted of the disheveled surgeon trying to replace the bowel in the abdominal cavity. This delighted the audience, but humiliated the surgeon—no doubt it was the last herniorrhaphy he ever attempted.

Because of medical-legal issues, the American College of Surgeons was forced to discontinue the Wet Clinics in 1970.

COUNTY CHARACTERS

Tom Albers, Hospital Administrator

During the period from 1941–1968, one man was the administrator of the hospital, Tom Albers. His staff consisted of only one secretary. His primary responsibility was to control spending, stay within the hospital budget, and keep

a careful eye on personnel. He allowed no vacation time for interns or residents, and if time off was needed, his permission was necessary. If someone in the family died—sickness and illness didn't count—it might be possible to convince Albers to allow the housestaff member a day or two off. If an intern ordered too many antibiotics, he might have to meet with Albers to explain why. Certainly, if a special, expensive antibiotic was needed, the order had to be cleared with Albers. If an intern broke a glass syringe used for drawing blood, he had to take the shards to Albers's office in order to get a replacement. In essence, Albers micromanaged everything that went on in the hospital.



Glenn Mue, Xray Technician

Patients in Mission Emergency who needed an xray examination required transportation halfway across the hospital to the xray department, where Glenn Mues, the xray technician, presided in the evening. As there were no xray residents in-house at night, it was customary for the emergency room (ER) medical and surgical residents to traipse up to the xray department and read the films taken during the previous hour. Initially, when a new crew of residents started in the ER, Glenn would stand behind them and let them read the films. After the residents had committed themselves, he would step forward and point out the obvious fracture they had missed or the spot on the chest xray that suggested tuberculosis.

Glenn was a big man with a stiff leg that caused him to have a major limp. In spite of this limp, he could turn out work so fast that, when he finally retired, it took three technicians to replace him. He would lift a helpless patient off the gurney, stand him against the chest xray plate, run across the room, punch the button to expose the film, then run back, catch the patient as he fell, and place him back on the gurney.

Mrs. Margaret Fogler, Night ER Supervisor

The commanding presence at Mission Emergency on the evening shift, the busiest time of the day, was Mrs. Margaret Fogler. She had grey hair, had a loud, husky voice like a foghorn. Her command post was the nurses' station, where she could look out and screen all patients being admitted. She would glance at the patients and direct her nurses and orderlies: "Better bathe and Quell that one. Call the obstetrics resident right now—that one is nearly bled out! Put that one back in the cell and call the psych resident. Get the surgery resident in here right now—that one needs to go to the operating room." She played ER triage like a musical conductor, and her priorities were always right on the money!

Don Longanecker, Photographer

Don Longanecker was not much more than five feet tall and always wore a hospital gown, which reached to the floor and was open in the back. His studio was in the rear of the xray department, where he had accumulated a display of dramatic photographs of all sorts of amazing pathology. He was hired

by the Cancer Registry but was available as the institution's photographer. He never seemed to be doing much of anything, but when asked to take a picture, he was always "too busy." However, if the housestaff member pleaded with him for a little while, he would relent and agree to take the photograph

Harry Garland

Harry Garland, the Stanford chief of Radiology, was a bright, crafty Irishman with Gaelic charm. He never lost a debate—at least he would never acknowledge he lost one. When he got himself backed into a corner by making some outrageous statement, he would quote the literature to prove his point. Bill Silen challenged him outright in one such circumstance and said, "Dr. Garland, I looked up that so-called reference of yours and it does not exist." To which Garland replied, "Billy boy, Billy boy, you have been reading again." This turned the laughter on Silen and diverted the audience's attention from Garland.

Garland was not averse to talking patients out of surgery. In one such instance, when the patient was represented at Tumor Board several months later with post-irradiation recurrence, Garland indicated that the previous recommendation of Tumor Board had been xray therapy. The chief surgical resident stood up and challenged him, "Dr. Garland, that just isn't so. The previous Tumor Board recommended surgical treatment and you talked the patient out of it!" With that, Garland exploded and ordered the resident out of the room. Subsequently, he demanded that the resident be fired.

Matty—Carl Mathewson—quizzed the resident, who stoutly maintained the veracity of his statement. Fortunately, the radiology residents had informed him that Garland had a duplicate file—the original file contained the secretary's notes taken at Tumor Board. With that, Matty smiled and arranged a meeting with Garland to discuss the issue. In the middle of the meeting, after hearing Garland out, Matty inquired, "Doesn't your secretary have notes of the meeting?" Not waiting for an answer, Matty picked up the phone, called the secretary, and said, "Dr. Garland would like you to bring your notes of the June 1957 meeting of Tumor Board up to my office." These notes confirmed that the recommendation had been surgery. With that, Garland spluttered an abrupt apology and left.

INCIDENTS & ANECDOTES

Sunday Rounds

The highlight of the week on the Stanford Service, or at least the most stressful time, was Sunday rounds with Roy Cohn. Cohn's habit was to make rounds on Ward C every Sunday at a time that was never designated, but anywhere from 7 AM to noon. He would often bring his two young sons with him and leave them in the Ward C solarium. They usually tore up the room, much to the distress of the secretary who found a mess when she came to work on Monday. The chief resident's job during rounds was to describe the pathology on each case in a rapid tour that rarely lasted more than 15 minutes. Roy had a knack of identifying the patient with an unsuspected complication and inquiring for more detail. One Sunday, in the course of making rounds, the resident—to his horror—could not identify a patient who occupied a bed that the

resident had previously thought was empty. In the middle of the resident's apology, while the group was approaching the patient for examination, the bed seemed to explode open as a medical student burst from the bed and ran terrified down the hall. He had been on call all night in the ER and, to avoid the possibility of being caught asleep there, he had found an unoccupied "safe" bed on Ward C.

How to Capture a Case

Residents were always hungry for good cases. The senior resident had a female patient diagnosed with pancreatic cancer and had scheduled a Whipple procedure. Dr. Mathewson and the chief resident indicated that they planned to participate. Both were duly notified that the patient was scheduled as the first case on Thursday. The senior resident then made arrangements with the operating room to start the case at 5 AM. When Matty and the chief resident arrived at 8 AM, the tumor was out. As a result, Matty felt compelled to caution his residents, "Do not start a case until I am there."

An Intern Does a Case

Sheldon Levin was the ER consultant one very busy night. The chief resident was doing an emergency gastrectomy, and as it was going well—Levin just observed. Another housestaff member tapped Levin on the arm, "Dr. Levin, they just brought in a man with a gunshot wound of the abdomen. He is in shock. May I bring him up?" Levin then helped the housestaff member through a very complex case that involved the pancreas, stomach, colon, and diaphragm. At the completion of the case, which went well, Levin inquired for further details about the surgeon, only to find out that he was a rotating intern. The intern had presented the case so maturely and with such presence that Levin had assumed that he was at least a third-year resident. (...as told by Bob Albo)

Tuberculosis

The scourge of the medical students and housestaff was tuberculosis. Every year, three or four interns and residents came down with overt disease, and many others had their tuberculin test results switch from negative to positive. During his chief resident year, Norm Christensen developed a pulmonary infiltrate and was hospitalized in the infectious disease unit. After several months he was allowed up in a wheelchair. With the assistance of his senior resident, he made ward rounds in a wheelchair.

Food

In 1949, the hospital ran out of money in December and from that point on the food was terrible. One doctor said, "I couldn't eat most of it and I lived on bread and milk." Another remarked about one dinner, "It looks like someone emptied the grass from the lawn mower into the pan and cooked it."

Paint Job

One year, Mission Emergency was so dingy that two of the house officers bought several gallons of white paint and covered everything with it,

including the ER gurneys. Tom Albers, the hospital administrator, was so pleased he gave them a party and paid for the white paint.

My Name is Fred

Fred was a patient who had survived a severe head injury and would wander about in the hospital. The nurses put a sign on him that said, "My name is Fred. Please return me to Ward F." The UC surgery residents disliked the Stanford surgical secretary, so one evening they locked Fred in the Stanford office after giving Fred a stapler and showing him how to staple all the pages together on the Stanford Service's charts.

Boxer Rounds

When Norm Christensen was chief resident, it was his custom to walk his boxer dog on Sundays—this included bringing his dog with him when he made ward rounds.

Acute Cholecystitis

The policy on the Stanford Service was, "Never do a cholecystectomy on a patient with acute gallbladder disease. If the patient is sick enough to warrant surgery, then the treatment should be cholecystostomy under local anesthesia." The patient would then be sent home for six weeks to "cool off." At that point, the patient could be scheduled for an elective cholecystectomy. The UC Service had the opposite philosophy, "Always operate and remove the diseased gallbladder. This lessens morbidity and does not increase mortality."

What this policy accomplished was to ensure that the UC Service did twice as many cholecystectomies as the Stanford Service. Stanford's patients, when sent home to recuperate, usually did not come back for their elective surgery and returned only after having another attack. If they came back on UC's week, they were operated on; if they came back on Stanford's week, their surgery was deferred again. Only in the late 1950s, after the Service published a paper documenting the superiority of their approach, were the Stanford residents allowed to operate on acute gallbladder disease.

A Message from God

A psychotic man was brought in by police and, with great difficulty, was thrust into one of the psychiatric cells. It was alleged that he had been stabbed, but he was a big guy and so violent that no one dared to enter the cell to examine him. In order to monitor the cells, there was a loudspeaker system. The Mission Emergency resident at the time went to the loudspeaker, turned it up high, and in a big booming voice said, "This is God speaking. Lie down and shut up!" With that, the patient lay down quietly and allowed himself to be examined.

The Good Samaritan

A man ran into the ER. He said, "I picked up a woman I found unconscious in the street. She is in my car just outside." The unconscious patient was immediately transferred to the ER resuscitation room. In the excitement, the Good Samaritan followed. As he watched the initial resuscitation attempts he passed out, hit his head on the floor and was rendered unconscious. He was placed on an adjoining examination table, where it was noted that one of his

pupils was larger than the other. A few minutes later, the man awoke to find himself naked, catheterized, and with an intravenous line running. It turned out that one pupil was larger than the other as the result of an old eye injury.

“How about a little volleyball?”

The Stanford residents frequently had a volleyball game going in the late afternoon when most of their chores were done. A favorite maneuver was to go into the operating room on UC Service operating days and bounce the ball in the doorway, challenging the UC residents to come out for a little game. This usually fell on deaf ears!

A Little Too Much Volleyball

The Stanford residents challenged the UC residents once too often! One year, the UC Service responded by subjecting the Stanfordites to a smashing and thoroughly humiliating defeat. Bob Albo, the UC Chief Resident at the time, had been a basketball and volleyball star during his undergraduate days at Berkeley. His team of semiprofessionals cowed the Stanford residents so thoroughly that it was a long, long time before they did any more challenging.

Cholecystectomy Race

A Stanford resident—we will call him Jack—and a UC resident—we will call him Bud—had a bet to see who could do a cholecystectomy the fastest. Jack won by 15 minutes and claimed 15 beers from Bud. A week later Bud called Jack. “If you put two cases of beer in my room right now I won’t say a word.” It seemed that the specimen Jack had submitted to pathology came back with the diagnosis of “normal kidney!”

Neutering Business

The surgical residents were frequently approached by other members of the hospital staff who asked them to neuter their pets. A pack of sterile instruments and towels were borrowed from the operating room, and the operations were performed in the main autopsy area in the pathology building. Pentothal was the anesthesia of choice, administered intravenously in dogs and intraperitoneally in cats.

CASES

Tracheal Stenosis

Roy Cohn was always available to help with the more difficult cases. One such case was that of a young Hispanic American female, perhaps 18 years of age, who was admitted with acute disseminated tuberculosis. The Surgical Service was called to see her urgently because of acute tracheal obstruction. The xray suggested that the location of the obstruction lay in the distal trachea, where all but 2–3 mm of the tracheal lumen was occluded. Despite receiving oxygen by mask, she remained in respiratory distress. As it appeared that the routine tracheotomy that surgery had been asked to perform would not be possible, Roy Cohn was called. Cohn looked at her struggling to breathe—she had severe supraclavicular and intercostal retraction—and suggested a trial of an oxygen-helium mixture before resorting to a desperate operation to open her

airway. This provided dramatic relief but, of course, did not solve the problem. Cohn then proposed tracheal replacement with a homograft trachea, which the residents obtained from an autopsy at Stanford.

During the operation, Cohn exposed the trachea in a matter of minutes by using a median sternotomy. He then sliced the trachea open longitudinally and had the anesthesiologist advance the endotracheal tube into the left main bronchus. He patched open the stenotic area with an ellipse of Ivalon (plastic). Next he created a tracheal opening in the usual location just below the cricoid cartilage and seated the tip of a tracheotomy tube right at the tracheal bifurcation. The patient survived the procedure, was cured of her tuberculosis, and was discharged about a year later.

Splenoportography

In some instances, the ability to perform a portocaval shunt in a patient with bleeding varices was compromised by thrombosis of the portal vein. Cohn favored working patients up by injecting contrast media percutaneously directly into the spleen with a #18 spinal needle. This made it possible to see the splenic and portal veins. Splenic pulp pressure could also be measured, which was a direct reflection of portal vein pressure. Surprisingly, complications were negligible.

Above-Knee Amputation

One UC resident scheduled a high-risk patient at Laguna Honda Hospital for above-knee amputation under local anesthesia. The operation was proceeding slowly when the attending arrived. He stood and watched for a few minutes, and then said impatiently, "We need to get this thing over with." He quickly scrubbed and promptly clamped the isolated but still intact sciatic nerve. The patient gave a terrible scream and fell off the table. It seemed that the resident had not yet injected any local anesthetic into the sciatic nerve! Great confusion ensued before the patient could be placed back on the table and the operation completed.

Gunshot Wound of the Head

One busy Saturday night, the police brought a comatose patient with a gunshot wound of the back of the head into the emergency room. The emergency room was extremely busy, so—as the patient was not expected to live—the patient's gurney was pushed back to the cells where psychiatric patients were kept. At 7 AM rounds the next morning, the residents walked down to the cells to complete the paperwork on the unfortunate victim. When the door was opened, there was the patient sitting on the edge of the gurney. He asked, "When's breakfast, doc?" On xray, the bullet was found flattened against the back of his skull.

Annular Rectal Tumor

One of the junior residents excitedly called his chief resident. He had just examined a patient with a proctoscope and observed a round, smooth, "napkin ring" tumor at 12 cm. The chief hurriedly arrived and found the patient on the proctoscopy table, carefully draped, with the proctoscope still in place. There was a smooth round mass all right—the uterine cervix!

Stab Wound of the Heart

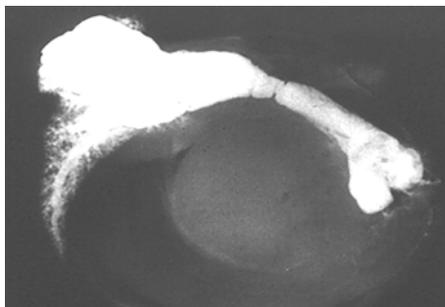
The ambulance brought a young boy with a stab wound of the chest to the emergency room. The boy had no sign of life, and the ambulance driver apologized but said they could not just leave him in front of his parents. He had no pulse or vital signs, but Willie Schaup called Roy Cohn, telling him he was going to take the boy to the operating room anyway. Cohn replied, "Don't to it. You can't save them all, hot shot." The anesthesiologist refused to participate, but Schaup opened the chest, found a bulging pericardium, opened it, and encountered a fountain of blood. His finger over the hole controlled the bleeding from the heart that was now pumping vigorously. Cohn arrived as Schaup was trying to place a myocardial suture to no avail. "Place a suture in the apex and use it for traction to control the heart," Cohn advised. With that, Schaup was able to close the hole. The patient recovered!

Bleeding Carotid Artery

A junior resident and a senior resident received an urgent call from Central Emergency one Sunday morning concerning a patient with a stab wound of the neck. The nurse asked that someone come quickly because the physician had his finger on a bleeding carotid artery and could not move the patient without risking further hemorrhage. The residents borrowed two vascular clamps from the operating room, subpoenaed an ambulance, and, on their arrival, managed to get vascular control with their two clamps. They brought the patient back to the County and successfully repaired the vessel. For this they received criticism from their attending, their service chief, and the hospital administrator, who felt that they should not have left the hospital. Moreover, their attending felt that they should have ligated the vessel rather than repaired it.

Mr. Enolaba

In 1958, two interns had gone abalone hunting during their weekend off. They decided, as a prank, to send a piece of the abalone gastrointestinal (GI) tract to pathology labeled "rectal biopsy." The chief pathology resident was an extremely sober, conservative individual who almost never would make even a tentative diagnosis on his own. Although the specimen sent to pathology consisted of a major chunk of tissue, a repeat biopsy was requested. By this time, the whole Surgical Service was involved and the decision was made to give the interns time off to collect another specimen. When they returned, the xray department injected contrast media into the GI tract of the abalone and took a film. After that, the specimen was resubmitted and a request was made that the patient be presented at the next Tumor Board. This resulted in the need for pathology to commit itself regarding the nature of the tissue. Dr. Harry Garland, the chief of Radiology and chair of Tumor Board,



"Mr. Enolaba"

was delighted by the case. So, “Mr. Enolaba”—abalone spelled backwards—was presented to the effect that this lesion was seen on GI series and biopsied. The Pathology Department still refused to commit themselves and indicated that they had sent the slides to the Armed Forces Institute of Pathology for review. The GI series was then shown, much to the embarrassment of the pathology staff.

Iatrogenic Arteriovenous Fistula

The Stanford Service had great fun with a case inherited from the UC Service. As mentioned earlier, the service that was covering emergency week treated any emergency presenting to the Emergency Department. However, if the patient coming into the emergency room did not have an urgent problem and had previously been admitted by the opposite service, that patient was to be admitted to the original service. In this case, a former Stanford patient presented to the emergency room with a chronic leg ulcer during UC’s emergency week. No popliteal pulse could be felt, so the diagnosis of superficial femoral artery occlusion was made. The patient then underwent an emergency femoral-popliteal bypass procedure in which a homograft artery was used. The patient’s leg appeared to be warm and well perfused; however, the ulcer was extremely painful and continued to enlarge. The patient was nonetheless discharged from the UC Service and was immediately readmitted to the Stanford Service as having a chronic problem and requiring amputation. A femoral arteriogram showed that the homograft had been anastomosed to the popliteal vein rather than the popliteal artery. The patient’s ulcerative lesion was by now so far advanced that above-knee amputation was required.

Carotid Artery Biopsy

Because of a chronic shortage of anesthesia staff, there was a maximum use of local anesthesia. This sometimes resulted in a disaster or a near disaster. In one instance, one of the junior residents was assigned the “simple operation” of a cervical node biopsy. He apparently had established very little rapport with the patient, who kept complaining from under the sterile drapes about the roughness of the surgeon. The node biopsy turned out to be a biopsy of the carotid artery. When the senior resident was urgently summoned to the scene to assist, there was blood on the ceiling and a very pale, sweaty junior resident holding pressure over the bleeding site. The patient under the drapes was exclaiming, “I told you so, I told you so, you are an incompetent s.o.b.” Fortunately for the patient, the defect in the artery was readily repaired with simple suture. The patient absolutely refused any consideration of a repeat attempt to biopsy the large lymph node, signed out against medical advice, and disappeared from the surgical scene.

The Suicidal Kidnapper

One of many conflicts with the lay press involved the kidnapping of a newborn baby of a prominent physician from a private hospital. The woman kidnapper was admitted to Mission Emergency with slashed wrists after an attempted suicide. News reporters invaded the women’s ward in the emergency room while the residents were trying to examine her and administer care. The press totally disrupted all treatment of patients. When one physically intimidating intern attempted to clear the patient-care area, the press threatened

to intervene with the mayor and have him fired. While the woman's lacerations were being repaired, they even burst into the operating room with their cameras.

After treatment, the woman was admitted to psychiatry and put in a locked ward. She promptly removed and swallowed her bedsprings. A back corridor was used to take her to the basement and through a tunnel to xray. As she arrived in xray, the press descended once again and did their best to get her xray film. Glenn Mues's intimidating presence saved the day and kept the news reporters at bay. The residents read the film in the dark room. As was true in this case and many others, there were always employees of the hospital who were on the payroll of newspapers. These employees contacted the newspapers whenever there was some newsworthy event. As this was a public hospital, the news media considered that they had a perfect right of access to all patients under all circumstances. As far as they were concerned, there was no such thing as a patient's privacy.

Depressed Skull Fracture

An elderly man with a white beard was admitted to Mission Emergency for treatment of two depressed skull fractures. He said he was sitting by his television set when a man came in to rob him and hit him on the head twice with a hammer. Thirty minutes later, another man was brought in by ambulance for treatment of a stab wound. This patient said that he was sitting by his television set when a robber broke in, stabbed him, and stole his television. "Anyway," he said, "I got him good. Hit him twice on the head with my hammer as he was going out the door!"

Identifying an Abdominal Mass

Dr. Goldman paged a resident and told him to go to the emergency room, as there was a patient there that he particularly wanted the resident to see. The patient was a very elderly man and, on examining his abdomen, it was obvious to the resident that the man had a large bottle in his left colon. The resident called Dr. Goldman and told him his findings. Goldman's reply was, "That is apparent, but what kind of bottle? It is obvious that you did not palpate the name on the bottle." When the resident replied, "No," Goldman said, "I have determined that it is a Pepsi Cola bottle." Sure enough it was. When the resident asked him about it later, Goldman's reply was, "The experience should teach you the importance of taking a thorough history."

The Fracture Case

Matty treated fractures all his life. He had treated the wife of a prominent physician for a tibial fracture. Unfortunately, at the time that the cast was to be removed, Matty was out of town. He had not been able to find anyone to cover for him and Roy Cohn would not treat fractures. Therefore, he arranged for the patient to come to the County to have his chief resident remove the cast. The resident met the patient at the front door and then led her to the cast room, having previously removed all derelicts from the room. As he proceeded to cut the cast, the patient insisted that the cast cutter was cutting her. The resident assured her that the cutter would not cut skin and demonstrated the saw on his hand. However, before that cast was entirely removed, blood began welling up and when the cast came off, the resident found that he had made a longitudinal cut the length of the patient's leg! It seems that Matty did not pad his casts, but

placed the plaster directly on the skin. The resident treated the cut as best he could. When Matty returned, he took the complication with equanimity. He informed his resident that he always placed a strip of cloth down the lateral aspect of the leg to cut upon, but he had forgotten to tell this to the resident.

A Splitting Headache

The screening social worker in Mission Emergency was confronted with a man complaining of a bad headache. Without looking up, she castigated the man for his frivolous complaint. Then, finally—looking up at the man still standing there—she noticed the handle of a knife sticking out from his head.

The shocked social worker immediately led the man to an examining room. The residents encountered a rather jovial man who said he was sitting at the bar minding his own business when he felt a sudden blow to his head. Examination disclosed nothing more than a pocketknife handle in the side of his head. Xrays disclosed a knife blade that passed horizontally along the floor of the skull nearly to the midline.

Frontoparietal craniotomy was performed to remove the knife blade, as there was fear of catastrophic hemorrhage from the circle of Willis with extraction. However, absolutely no damage was found intracranially, and the knife was removed without incident.

Mrs. Fogler Misses One

A large woman on a gurney was wheeled passed Mrs. Fogler in Mission Emergency.

“Well, sweetheart, what is your problem?” she said.

“I’m bleeding,” said the patient.

“Take her to the exam room and get her up in stirrups,” said Mrs. Fogler.

The housestaff member who was urgently summoned could see blood all over, but he could not find the source of the bleeding with a vaginal speculum examination. “When did you stop bleeding?” he asked.

“I’m still bleeding,” was the response. “Up here.”

The patient had two slash wounds of the chest. Fortunately, there was no serious internal injury.

An Errant Cholecystostomy:

The Stanford Service constantly teased the UC Service about their lengthy operations. One Stanford chief resident walked out of his emergency cholecystostomy and bragged, “Took only ten minutes.” He said this while the UC Service in the adjacent room was doing a lengthy cholecystectomy. However, the Stanford patient did not do well, so a contrast study was performed. The study indicated that the cholecystostomy tube was in the transverse colon.

SUMMARY

After World War II, a two-tiered system of health care was still present in the United States. County hospitals were the only source of care for the indigent and for elderly retirees, and they were poorly funded as compared to

private hospitals. Almost all infectious disease, including tuberculosis, was also the province of the county hospital.

Physically, county hospitals were large structures with large, open, often densely crowded wards. Supplies, equipment, and, more rarely, good food were often in short supply. County hospital nurses were overworked and underpaid, and there were constant nursing shortages.

Advances in surgery that resulted from World War II stimulated the need for additional surgical training. Before the War, generalists with little or no formal surgical training did most of the operations performed in the United States. The introduction of blood banking and antibiotics, and advances in anesthesia and in technical surgery generated by the War, had resulted in the potential for new, more complex surgical treatment. Although the American Board of Surgery had been organized shortly before World War II, criteria for surgical training were still in their infancy in 1945. During this period, county hospitals were the optimal sites for the expansion of surgical training for two reasons: the first was that they represented an optimal training site for more and better surgeons; the second was that the presence of training programs served to improve the quality of surgical care provided to indigent patients.

This was the situation at San Francisco City and County Hospital when Leon Goldman and Carl Mathewson became chiefs of the UC and Stanford Surgical Services in 1945. The two new chiefs of the Surgical Services participated in upgrading and setting new standards for surgical training. Both lobbied and obtained financial support for expansion of their respective training programs.

The surgical schedules at the County Hospital were markedly expanded. Surgical treatment of tuberculosis advanced rapidly as antibiotics permitted resection and cure of the disease. Gastric, biliary, and esophageal surgery flourished. Thyroid surgery, previously associated with high risk, was now much safer thanks to the introduction of drugs that controlled the toxicity and vascularity associated with hyperthyroidism. Radical cancer surgery became practical, and cures of previously lethal head and neck cancers became possible.

Previously untreatable vascular disease also became curable surgically. Removal of lethal aneurysms was possible because arterial replacements became available. Amputations could be prevented by endarterectomy and arterial bypass procedures.

The housestaff worked with minimal pay to provide this surgical care, but despite the long hours necessary to accomplish their work, the morale of the interns and residents was, for the most part, excellent. Even though their work often entailed menial chores, the housestaff knew they were essential and were providing good care to those most in need. The challenges they faced and overcame prepared them to be accomplished surgeons and leaders in their respective hospitals after they completed their training.

TRAINING PROGRAMS

University of California Chief Residents

1945–1946

John A. Morgan
William P. Pollack
Alden W. White

1946–1947

Alex Gerber

1947–1948

Ralph L. Byron, Jr.
Edwin J. Wylie

1948–1949

Orville F. Grimes
Woodring Pearson

1949–1950

Philip K. Ferrier
Louis D. Nash

1950–1951

Spencer T. Chester
Dale G. Foster

1951–1952

Cooper Davis
Earl B. Fenston
Maurice Galante
Richard E. Gardner

1952–1953

Robert B. Green
Edwin E. Kerr
Jack D. Thorburn

1953–1954

Orland G. Davies
J. Malcolm Edmiston

1954–1955

Frederick M. Binkley
James A. Bulen
Robert Johansen
Allen H. Johnson

1955–1956

Quenton Bonser
George Guido

1956–1957

Donald Hine
Albert K. Mineta
William Silen
Gordon J. Sproul

1957–1958

Richard E. Alquist, Jr.
Robert H. DeReimer
Paul H. Trotta
William L. Weirich

1958–1959

Peter C. Boudoures
Chauncey D. Buster
Dean L. Maudsley

1959–1960

Mahlon C. Connett
Jack Jew
John S. Najarian
Antonio C. Oposa
Jack Q. Owsley

1960–1961

Albert D. Hall
Gilbert P. Gradinger
Dwight H. Murray, Jr.
J. Burdette Nelson, Jr.
Charles P. Semonsen
Peter Teel

1961–1962

Mervyn F. Burke
Alfred A. deLorimier
J. Harold Hanson
F. William Heer
John L. Myers
John W. Smith

1962–1963
 Abdul Al-Shamma
 H. Duane Collier
 William E. Dozier
 Rolland C. Lowe
 Paul Negulescu
 Robert S. Seipel
 R. Rolla Spotts
 Arthur N. Thomas

1963–1964
 Richard L. Dakin
 Michael F. Hein
 C. David Jensen
 Dee J. McGonigle
 Parker M. Powell, Jr.
 John J. Skillman
 Louis C. Zanger
 Harry Zehner

1964–1965
 Donald Adams
 Robert J. Albo
 Donald P. Elliott
 Bernard Gardner
 William P. Graham, III
 Sanford A. Hepps
 Robert C. Lim, Jr.
 Herbert S. Mooney, Jr.
 Ronald J. Stoney

1965–1966
 John N. Baldwin
 Robert B. Karp
 Paul Kelly
 Donald L. Morton
 Lloyd W. Rudy, Jr.
 William von Ruden

Stanford Chief Residents

1945–1946
 Kenneth Allen

1945–1946
 Phillip Westdahl

1946–1947
 Peter Joseph

1947–1948
 Paul Lauer

1948–1949
 Burton Adams

1949–1950
 Robert Quillinan

1950–1951
 James Yee

1951–1952
 Richard Compton

1952–1953
 George Magladry

1953–1954
 Cooper Davis

1954–1955
 Norman Christensen

1955–1956
 Richard Gross

1956–1957
 Myron Close

1957–1958
 Willis Schaupp

1958
 William Blaisdell
 (6 months)

1959
Paul Carlson
(6 months)

1959–1960
Dick Hibner
(Last Stanford chief)

1960–1961
Burdette Nelson

1961–1962
John Smith
(Last Stanford trainee)

SFGH HOSPITAL COMPOSITION

A Med Records
B Stanford Orthopedics
C Stanford Surgery
D UC-Stanford Urology
I City employees

E UC Medicine
F UC Surgery
G Stanford Medicine
H UC Orthopedics
II UC Pediatrics

I Library
J UC Surgery, Orthopedics
K UC Eye-ENT
L Stanford Eye-ENT
III Stanford Surgery, Orthopedics

W UC Gynecology, Urology
N UC Medicine
O Stanford Medicine
P Stanford Gynecology, Urology
IV Stanford Pediatrics

Building 70 Tuberculosis

Building 80 Psychiatry

Building 90 Obstetrics (follow-up clinic in the basement)

Isolation Building, Infectious Disease

Pathology and the Morgue, 22nd Street building

Mission Emergency, first floor of the annex on 22nd Street

Operating room, second floor, emergency room annex

Amphitheater, third floor, emergency annex

Laboratories, UC and Stanford, fourth floor, emergency room annex

Physical therapy in the basement, emergency room annex

Radiology, second floor, kitchen annex

Dining room, staff & physicians, first floor, kitchen annex,

Administration Building: housestaff quarters, second and third floors.

CHAPTER III

THE BLAISDELL YEARS: 1966–1978

The changes in the County Hospital, now officially called San Francisco General Hospital (SFGH), during this period were far greater than at any time in its history. The Medicare-Medicaid bill was passed in November 1965 as part of President Johnson's Great Society. The bill was passed even though the medical profession had fought it tooth and nail and had indicated that it represented the beginnings of National Socialism.

Medicare provided universal coverage for all citizens over age 65 years, and Medicaid supported state-funded medical assistance programs for the medically indigent. Some organizations for chronic diseases, such as end-stage renal disease, lobbied for inclusion, and renal disease was the first added to an "old age" insurance plan. Eventually, transplantation, a logical extension of the treatment of end-stage renal disease and other organ transplant procedures, would be added to Medicare.

Medicare became one of the transforming legislative actions that contributed to the incredible growth in influence of the academic health center. As part of the Medicare law, Indirect Medical Education (IME) was formed to provide a Medicare-based supplement to hospitals with Medicare patients and teaching programs. As a 13.5% supplement to the Medicare reimbursement when first initiated, it provided a financial subsidy to teaching hospitals that greatly enhanced their financial bottom line. Similarly, the Direct Medical Education (DME) stipend provided a salary for house officers and additional funds for teaching hospitals.

The second great post World War II development was the explosion of funding from the National Institutes of Health (NIH) during the 1960s and 1970s. The vision of Mary Lasker, Vannevar Bush, Michael DeBaakey, and others stimulated the development of a disease-based institute system with extramural funding provided for academic health centers. This system was designed to ensure that the United States would continue to be a unique and dominant force in creating health research breakthroughs.

The decade of the 1960s also saw, as the result of the Vietnam War, the "hippie generation" of young people and their loss of respect for the society of their elders. They eschewed alcohol in favor of the drug culture. The drug culture resulted in an epidemic of crime and violence in American cities of a magnitude never seen before. Author Peter Drucker called this period of the last quarter of the twentieth century one of epochal society transformation.

During this period and incidental to it, the University of California (UC) Medical School was undergoing major transformation. During most of its history, the school had been primarily inbred, but under the initial leadership of an enlightened Dean, William Rhinehart, the faculty was being transformed. It started with the recruitment of Julius Comroe in Physiology from Pennsylvania

Medical School in 1960, and then Stuart Cullen in Anesthesia from Iowa in 1962, J. Englebert Dunphy in Surgery from Oregon in 1964, and Holly Smith in Medicine from Harvard in 1965. Under the leadership of these men, the Medical School turned from its emphasis on clinical care to an emphasis on research. All new faculty were recruited on a full-time salary system, which meant that clinical care dollars went into the coffers of the respective departments rather than into the pockets of the provider.

The future of SFGH was unclear. Indigent health care, by State law, was the responsibility of the county. During the early part of the twentieth century, that responsibility was interpreted to mean a county-supported hospital. With the introduction of Medicare and Medicaid, the federal government assumed financial liability for most indigent care. Now there was to be only one standard of health care, as theoretically federal funds would now pay for private health care for the poor. As a result, most small county hospitals closed. The issue for the public and the lawmakers was what to do with the large municipal county hospitals. Should they, and could they, be closed?

In April 1966, William Silen, chief of the Blue Surgical Service at SFGH, accepted a professorial position at Harvard—an outstanding career move. This left the position available for someone who might grasp the challenge and opportunity. J. Englebert—Bert—Dunphy, chair of Surgery at UC, hoped this was so when he appointed William Blaisdell as the successor to Silen. As he was leaving, Silen commented to Blaisdell, “Good luck. I hope you have fun closing the hospital.”

Blaisdell was confronted by the challenge of preserving the hospital and its teaching services as he assumed responsibility for the Blue Surgical Service at SFGH in July 1966. Dr. Carl Mathewson, Blaisdell’s former chief, was in charge of the former Stanford Surgical Service—the Gold Surgical Service.

THE PROFESSORS

Carleton Mathewson, Jr.

In 1966, Mathewson—chief of the Gold Surgical Service—was nearing the obligatory retirement age of 65 years (*see Mathewson’s biography in Chapter II*). Blaisdell was his protégé, and he welcomed his pupil to co-chiefship. Mathewson indicated that he did not wish to deal with the changes in the hospital that were being required and suggested that Blaisdell take the leadership in implementing the necessary reorganization. Mathewson retired in June 1968, leaving Blaisdell in charge of the consolidated program.



F. William Blaisdell

Bill Blaisdell was born to medicine. One of his grandfathers taught Bacteriology at the University of Keokuk (later Iowa), and the other was a professor of Surgery (anatomy) at

Stanford. His father and uncle, graduates of Stanford, were a practicing internist and surgeon, respectively, in Watsonville, California, where Blaisdell was raised.

Blaisdell received his B.S. and M.D. degrees at Stanford. He took his internship at Philadelphia General Hospital, and then spent two years as a Destroyer Division Medical Officer in the Navy during the Korean War. Upon completing his Service requirement in 1954, he returned to Stanford for his surgical residency, which included one year at Harvard with Francis Moore. After finishing the surgery residency at Stanford in 1959, he did a cardiovascular fellowship under Michael DeBakey and Denton Cooley in Houston. He had hoped to return to a position at the Stanford Medical School, which had just moved from San Francisco to the Stanford campus, but none materialized. While he was investigating a job offer in the Surgery Department at the University of Oregon, then under Bert Dunphy, he was informed that the position of chief of Surgery at San Francisco Veteran's Administration (VA) Hospital had just become available.

Dr. Carleton Mathewson, Blaisdell's mentor from his Stanford residency days, informed the chair of Surgery at UC San Francisco (UCSF), Dr. Leon Goldman, that Blaisdell was about to be appointed to a similar job in Oregon. Partly as the result of this, and after a favorable interview, Goldman offered Blaisdell the position at the San Francisco VA Hospital, which he immediately accepted.

At that time, in July 1960, the VA residency was a separate, independent program with a loose affiliation with UC's program. A number of outstanding individuals came through Blaisdell's surgery residency program in the four years that it remained independent. These included Frank Stuart, later professor and head of Transplantation at Northwestern, Wesley Moore, later professor and chief of Vascular Surgery at UC Los Angeles (UCLA), John Lilly, later professor and chief of Pediatric Surgery at the University of Colorado, and Robert C. Lim, Jr., later professor at UCSF.

When Dunphy succeeded Goldman as chair of Surgery at UCSF in 1964, one of his goals was to consolidate the surgical residency at UCSF, SFGH, and the VA into a single high-quality program. Blaisdell had met Dunphy during his residency rotation at the Peter Bent Brigham Hospital and while he was being recruited to Oregon. He was enthusiastic about Dunphy's plan and, during the 1964-65 academic year, the VA residency was merged with that of UCSF.

In December 1965, while Dunphy was on an extended professional visit to Australia, Blaisdell was involved in a problem at the VA that resulted in his leaving the institution. He and the chief of Medicine, Mervin Goldman, found that research funds were being misappropriated by the hospital administrators and solicited Dean William Reinhardt's help in obtaining a VA Central Office review.

Unbeknownst to the Dean, the UCSF Chancellor was recruited by the VA administrators to fend off the investigation. The end result was that Blaisdell and Goldman resigned. This discord was followed by a political confrontation between the Dean and the Chancellor. The old guard at UCSF had allied themselves with Chancellor John B. De C. M. Saunders, and the new senior faculty allied themselves with Dean Reinhardt, supporting Reinhardt's effort to change the tenor of the school. The impasse resulted in the Dean and Chancellor

both resigning, but with the new guard firmly in control of the future of the medical school. When Dunphy returned from Australia, he found that he had been appointed acting Chancellor and Stuart Cullen, the new Dean. Dunphy's comment was, "Bill, what have you done?"

Fortunately, a few months later, the position at SFGH became available. For Blaisdell, it was like coming home again, as most of his Stanford Residency had been at SFGH. However, one of the conditions that Dunphy set was that Blaisdell must give up heart surgery, as the University's cardiac program was dependent on the cases from SFGH.

Blaisdell had been active in cardiovascular surgery at the VA, having developed the VA's first funded Cardiac Surgery Center. So his initial attention at SFGH was directed toward developing vascular surgery. He brought with him his NIH-supported cerebrovascular grant, which also supported his vascular fellowship. However, during the next few years, thanks to Medicare coverage, the older patients were gradually phasing out and the average age of SFGH patients was dropping dramatically.

In parallel, at this same time, increasing violence in San Francisco caused an increase in injuries, which tripled from the year 1966-1967 to 1968. Because of the dawn of the drug culture, the City had become a violent place almost overnight. This resulted in the need to reorganize the Service in a new direction—Trauma.

SURGERY STAFF

Thomas K. Hunt

Tom Hunt, a graduate of Harvard Medical School and the University of Oregon surgical residency, was the first recruit of Bert Dunphy, the new chair of the UC Department of Surgery in 1964. Hunt was just finishing his chief residency at Oregon when Dunphy moved to UCSF. Hunt had worked in Dunphy's wound-healing laboratory during his residency and planned to continue independent investigations on his own in San Francisco.

Hunt's initial clinical assignment was as assistant chief of the SFGH Gold Service under Carl Mathewson. With Bill Silen—at that time, chief of the Blue Service—there was now a full-time UC faculty member for each of the two services. However, Dunphy was also counting on Hunt to assist in running his new wound-healing laboratory at UC.

When Blaisdell arrived in 1966, Hunt and his research fellow, Bengt Zederfeldt—later professor of Surgery at University of Uppsala, Sweden—were in the process of developing an independent wound-healing laboratory at SFGH. Ultimately, this plan did not work out, as Dunphy needed Hunt at UC to look after his grant as well as the Department's research fellows. Surgery residents were now being encouraged to spend a year in the research laboratory, a change in the residency. Also, research fellows, such as Bruce Conolly from Australia,



were coming to work in Dunphy's lab and needed the supervision that Dunphy could not provide.

In addition to his SFGH ward responsibilities, which included emergency call, Hunt had taken over the leadership of the surgical internship at SFGH. In the absence of any interest by the Department of Medicine in developing an outpatient program, Hunt had also assumed responsibility for that leadership role.

When Silen left SFGH, Edward G. Biglieri, chief of SFGH's Clinical Study Center and an expert in endocrine disease, began referring adrenal tumors to Hunt. Ed Biglieri's hypertension research included the development of a test for adrenal hyperaldosteronism. This resulted in his finding a large number of patients with adrenal tumors who required surgery. A little later, Glenn Bell, the former chair of UC's Department of Surgery, gave up his clinical practice and turned over his UC breast tumor practice to Hunt. At this point, Hunt was being pulled in multiple directions, and—when Donald Trunkey, who had been chief resident at SFGH from 1970-1971, came back from a fellowship to join the faculty at SFGH in 1972—he finally decided that it was time to move completely to UC.

Hunt, in addition to an active clinical practice, developed a brilliant research career in wound healing. In the course of his career, he trained dozens of research fellows, who then returned to their respective medical schools and became leaders in academic surgery.

Robert C. Lim, Jr.

Blaisdell considered Bob Lim the best clinical surgeon he ever trained, and Bob was his first faculty recruit at SFGH.

Lim was born and raised in San Francisco. He was educated in San Francisco Schools and then at UC Berkeley, where he was graduated in Zoology in 1956. He received his M.D. from UCSF in 1960. He then took his surgical internship at UC and his residency in Blaisdell's independent VA surgical program.

When Lim completed his general surgery training, he stayed on at the VA for one year in a vascular fellowship. He could not join the SFGH staff immediately, as Blaisdell had arranged for him to take a research fellowship with Lars-Eric Gelin and Sven-Eric Bergentz in Gothenburg, Sweden. It was two years before Lim was able to join the staff at the County—July 1968.

By the time Lim returned from Sweden, the Surgery Department had assumed administrative responsibility for Mission Emergency, and Lim was appointed director. He handled the challenge well. Everyone he came in contact with loved him, and in his own gentle way, he dealt effectively with multiple



inter-services emergency room conflicts. Lim had always been a good teacher, especially with residents, where he had the opportunity to pass on his clinical and technical skills.

Lim established his laboratory on the northeast corner of the fourth floor above Mission Emergency. He had returned from Sweden with an interest in platelet physiology, and this continued to be the main theme of his research. During his residency at the VA, he had developed the regional shock model that bears his name. He continued to use this shock model to help clarify the etiology of respiratory distress syndrome.

Lim's clinical research included calling attention to the increased risk of infection following splenectomy, which was controversial at the time. One of his most outstanding clinical publications was that describing three ex-vivo kidney vascular repairs, the first published in the English literature. His clinical interest in liver trauma resulted in expertise in liver resection, and he later developed an outstanding practice treating liver tumors. His was the most extensive experience with the treatment of hepatoma in Northern California.

During Blaisdell's tenure, Lim was the mainstay of the clinical program. His surgical skills contributed in a major way to the reputation of the elective, emergency, and trauma surgery being performed at SFGH. The nephrologists recognized his vascular talent, and he was the only one to whom they referred their vascular access procedures. In reward for this service, they supported his research program through an independent contract.

Lim stayed on the SFGH staff during Donald Trunkey's tenure as chief and then, in 1991, he was recruited to the UC Hospitals, where he confined his practice primarily to liver surgery. He rose to professor, not only at the medical school but also in the School of Dentistry, where he was appointed professor of Oral Biology. He was recognized as the outstanding member of his medical class of 1960 and has been a member of more than 25 professional associations, including Alpha Omega Alpha (AOA). He served as Secretary and then President of the San Francisco Surgical Association and the Pacific Coast Surgical Association. He has been President of the Naffziger Surgical Society and the Alumni Faculty Association. He has been Governor of the American College of Surgeons and President of its Northern California Chapter. He was Vice President of the American Association for the Surgery of Trauma. He has served on national, regional, and UCSF committees too numerous to mention. He has well over 100 publications in books and peer-reviewed journals.

Muriel Steele

Muriel Steele was recruited as a volunteer clinical attending surgeon shortly after Blaisdell arrived at SFGH. She was appointed to the full time staff in January 1969. For a long time, Muriel was the



unsung heroine of the Department.

When the clinics were opened in January 1968, Steele was hired to run the surgical clinic on the City salary that was available. Then, in the two-year hiatus before an outpatient chief was recruited, she was in charge of developing the entire Outpatient Department at SFGH . After Donald Fink was recruited as chief of Outpatient Services in 1972, he asked her to continue being administratively responsible for the medical and surgical clinics under the title, director of the Adult Health Center. These clinics were initially conducted in the former nurses' home that faced 23rd Street. In 1976, these clinics were moved to the clinics wing of the new hospital.

Muriel Steele was born and raised in the Santa Barbara area of California and initially planned on becoming a veterinarian. However, during college she decided on a medical career. She was graduated AOA from Stanford Medical School in 1956. She took her internship and initial years of residency at Stanford, as well. During her junior residency, while Stanford Medical School was still in San Francisco, she was in line to be chief resident. At that time, the residency consisted of a pyramid that went from six to the one who emerged as chief resident. The one selected to be chief resident was virtually always sent elsewhere for a special year of training. The committee running the Department elected to send Steele to St. Thomas Hospital in England during the academic year 1959-1960. Meanwhile, the Stanford Medical School moved from San Francisco and started anew in Palo Alto on July 1, 1959. The new chair would not accept a woman in his Stanford program, so Victor Richards, the former chair at Stanford, arranged for her to finish her residency in his newly established surgery training program in the Children's-Presbyterian Hospitals consortium in San Francisco.

After completion of her training in July 1962, Steele's practice was slow to develop. She was barely making a living covering her former professor's patients and running the Surgical Outpatient Department at Presbyterian Hospital. However, that latter experience served her well when it came time to organize the SFGH clinics.

Steele suffered in comparison with the rest of the surgical staff only in that she was a very sound but not a dynamic teacher, and she was surrounded by nothing but dynamic teachers. She was a good, solid clinician with a special interest in colorectal surgery that had developed during her year in England. She was not involved in laboratory research, as her administrative responsibilities occupied all her available time outside of teaching and clinical care. However, during her tenure at SFGH, she produced at least one or two clinical papers a year.

Steele organized a colorectal clinic and, in 1977, she made the observation that there were unusual infections in the gay men in her clinic. However, at that time she could not get anyone in the Department of Medicine interested in studying these problems.

Steele was Blaisdell's primary backup and functioned as the assistant chief of Surgery. She could be counted on to chide members of the staff who might be slighting their clinical responsibilities, including the chief himself. She

also set up and personally supervised the Department's billing machinery. This included checking all outgoing bills and ensuring their collection. Steele picked up every loose item in the Department, was the conscience of the Department, and outworked everyone.

Women had a difficult time being recognized by Surgery during this period of time and, in this regard, it is appropriate to point out the impact this had on her. In 1970, it was time to recommend her for membership in the San Francisco Surgical Society—the regional surgical organization composed of leading clinical surgeons. Steele's training, appointment, and publications clearly put her ahead of most of the other applicants, but initially it was not possible to get her accepted into the organization. One of the reasons was that, throughout its entire history, the Society had met in a prominent men's club—the Family Club. The Club absolutely refused to allow women into the facility. Ultimately, in 1972, her supporters—including all her former professors—were raising so much protest that the organization had no choice but to admit her. As a result, the Society was forced to move to the downstairs meeting room of the Olympic Club, which allowed women in that area.

Membership in the Pacific Coast Surgical Society came next. By that time, around 1974, Steele was clearly well qualified for membership. The San Francisco caucus of the organization voted overwhelmingly in her favor. Their recommendations were bypassed for two years straight, but finally so much controversy was raised over discrimination against women that the organization had no choice but to accept her. Thus, she was the first woman to become a member of the San Francisco Surgical and Pacific Coast Surgical Societies.

Steele had the longest tenure of any chair of the Hospital Executive Billing Committee, having served as chair in 1970, 1971, 1974 and 1975. She served two consecutive terms as chief of the Medical Staff—1977-1979. She died of an extremely aggressive uterine sarcoma in 1980, still working until nearly her last hour. After her death, the Surgery Clinic in the new SFGH buildings was named after her.

Muriel Steele was an absolutely outstanding woman. Blaisdell considered her the most valuable member of an extremely valuable staff. "She was the best of us all!"

Arthur Thomas

Art Thomas was born and raised in Salinas, California. He went to college at Seventh Day Adventist in Helena and his medical school was the University of British Columbia, where he was graduated in 1957.

Thomas's internship was at SFGH, from which he was accepted into the Stanford surgical residency program. When the Stanford Medical School was about to move to Palo Alto, Thomas was the first in



the Stanford surgical program to opt for the UC residency—a year before everyone else. He spent his first year in breast cancer research with Dr. Leon Goldman, the Department of Surgery chair, and Gill Gordon, an internist with a special interest in calcium metabolism.

When he finished his residency in 1961, Thomas opted for a thoracic fellowship at the VA under Blaisdell. This was jointly sponsored with Julius Comroe, the director of UC's Cardiovascular Research Institute (CVRI). At that time, there was great interest in hyperbaric oxygen, both for circulatory arrest for cardiac surgery and for the treatment of anaerobic infections. Thomas was recruited to supervise the VA's hyperbaric oxygen project, which had been initiated by Al Hall, the VA assistant chief of Surgery. Thomas embarked on the project with enthusiasm initially, but this keenness was tempered by his subsequent findings. While everyone else was waxing enthusiastic, Thomas saw its limitations, which were many. Nonetheless, when Thomas left the VA for SFGH in 1971, he brought a portable unit with him, so there was briefly a hyperbaric chamber at SFGH.

By 1970, John Murray, the chief of Pulmonary and Tuberculosis Medicine, was agitating for a full-time thoracic surgeon because Blaisdell's primary attention was being directed toward the Trauma Program. Almost all of the academic thoracic surgeons in that period were interested in cardiac surgery—not pulmonary surgery. Thomas was an exception, and the solution for Pulmonary Medicine's needs. He was recruited to SFGH from the VA in 1971. In his own quiet way, he brought this critical specialty the support it needed. However, tuberculosis surgery was phasing out in favor of cancer surgery, and Thomas's work evolved along those lines.

One of Thomas's major clinical contributions was to demonstrate that air embolism was a significant factor in morbidity and mortality following lung laceration, and he developed an animal model that proved this. He recognized the importance of chest wall stabilization following flail chest and developed a technique for stabilization by using orthopedic plates. He pioneered in the treatment of hiatus hernia and the operative treatment of cardiac arrhythmias.

An important contribution Thomas made to his specialty was to organize the Samson Thoracic Surgical Society, later called the Western Thoracic Society. This was a major accomplishment that has been recognized by the Society in making him a permanent member of the Society Council. As the initial secretary of the proposed society, he organized the initial and subsequent meetings of the Society. It was all done out of his SFGH office with his secretary's and Department support. This was done at a time when all the SFGH staff were on modest salaries, and most clinical thoracic surgeons had six- and seven-figure incomes. Nonetheless, SFGH Surgery funded the secretarial services for the Society and paid for the numerous mailings. Although Blaisdell lightly protested the use of Department resources without appropriate remuneration, it was allowed to go on, even though it took much of Thomas's spare time for years. It was a major contribution to Thoracic Surgery and to Art Thomas's prestige, especially when he was recognized by the presidency of the organization.

Thomas's successful outside investments rendered him relatively immune from financial salary issues within the Department. His generous parties, which included his residents, were an important contribution to morale. He acquired a large block of San Francisco 49ers tickets, and regularly took residents to the football games as his guests. His relationships with his residents were close. He was patient with them in the operating room as he introduced them to the intricacies of thoracic surgery. He consistently received the Department's outstanding teaching award and his residents affectionately referred to him as "Uncle Art."

George Sheldon

George Sheldon has gone further and accomplished more than any other faculty member or trainee in the UC system, past or present. He "has it all," and in a nice, quiet, non-flamboyant way that is impressive.

Sheldon was born and raised in Salina, Kansas. His father, also a surgeon, died in his fifties, while George was in high school. Sheldon was graduated from the University of Kansas in 1957, where he was also student body president. He completed his M.D. there in 1961, followed by an internship at Kansas as well.



In the summer of 1961, the Berlin Wall was built. Mobilization for possible war began, and all young doctors were called up for physicals. Those with only an internship education were drafted for outpatient assignments and other undesirable assignments. Accordingly, Sheldon volunteered, and so he was able to obtain an appointment in the Public Health Service and was assigned to a hospital in Galveston, Texas.

Following two years in the service, he applied for a residency in J. Englebert Dunphy's Department of Surgery at the University of Oregon. Dunphy had just decided to take the chair of Surgery at UCSF and accepted only Oregon students into the residency that year. Accordingly, because his options were limited, Sheldon took a year of Internal Medicine at the Mayo Clinic. This, combined with his internship and the two years of service time, provided Board eligibility in that specialty.

That fall, Miss Chick, Dunphy's long-time assistant who had moved to UCSF with him from Oregon, remembered Sheldon's application and called offering him a residency at UCSF starting in July 1965. As the program was still pyramidal at the time, with some ten or twelve junior residents vying for the six senior positions, Dunphy was not really taking any chances. Moreover, he had been impressed by Sheldon's interest in surgical history, as Sheldon had already published an article on Philip Sang Physick and another on the history of medicine in Kansas.

Sheldon had political astuteness in the best possible way, and that was his strong card. Even from his junior residency, he had the knack of organizing everyone around him, whether junior or senior to himself. While chief resident, he initiated open chest resuscitation for the victims of trauma who presented with cardiac arrest. Although the Outstanding Resident award usually went to a chief resident, Sheldon won it in his senior year and created political controversy in so doing. Needless to say, his potential was obvious, and before he finished his training in June of 1959, Blaisdell offered him a position at SFGH.

Sheldon had not spent any time in the lab during his residency. He was encouraged by Blaisdell to spend two years at Harvard working with Dr. Francis Moore after completing his chief residency. This proposal was received with lukewarm enthusiasm by Dunphy, who had lost out to Moore in the competition for the chief of Surgery at Brigham.

Sheldon came back to SFGH from his fellowship in Boston in July 1971. He brought with him special skills in surgical metabolism and nutrition. Intravenous nutrition was just starting to be used and Sheldon was one of the first in the field. This technique provided the ability to salvage patients critically ill on long-term artificial ventilation and those with gastrointestinal complications. Dr. Leon Goldman, who was dying of cancer superimposed on chronic bowel disease, was among his first patients. In the course of his clinical work, Sheldon developed a rat nutrition model, which he used to test his theories.

Sheldon had a lot to do with the organization of the Trauma Service, and he functioned as administrative officer for the Trauma Program Project Grant. He and Muriel Steele were Blaisdell's principal administrative deputies. Both took initiative well and, whenever they saw or anticipated problems, jumped in and fixed them. Sheldon's administrative efforts were primarily in research, Steele's in clinical care.

When Blaisdell left for the UC Davis School of Medicine, Sheldon and Trunkey were the obvious candidates to succeed him as chief. When Paul Ebert, then chair of Surgery at UCSF, asked Blaisdell's advice, he was told that it was like asking which he favored of two sons—Blaisdell could not choose between them. He told Dunphy that, in terms of politics, Trunkey was probably the best outside man, and Sheldon the best inside man. Trunkey might do more to advertise the Department, but Sheldon would accomplish more within the institution.

This opinion could be debated because Sheldon subsequently occupied nearly every possible position of merit in Surgery and Medicine. He left SFGH in 1984, when he was appointed chair of Surgery at the University of North Carolina. He became Secretary, President, and Regent of the American College of Surgeons; President of the American Association for the Surgery of Trauma, the American Surgical Association, the Association of American Medical Colleges, and the Society of Surgical Chairmen; and chair of the American Board of Surgery. In fact, he is one of the fewer than 20 surgeons to be President of all the major surgical societies. He has received numerous honors and awards,

including honorary membership in the Royal College of Surgeons of Edinburgh and the Royal College of Surgeons of England.

Donald D. Trunkey

Don Trunkey finished his residency in 1971 and, with Dunphy and Blaisdell's encouragement, went to Parkland Memorial Hospital in Dallas, Texas for training in shock research under Dr. Tom Shires. He was recruited back to SFGH in July 1972. Initially Trunkey was a bit reluctant to return, possibly because he was not eager to compete with Sheldon—surprising as that may seem! Trunkey also received an FTE to replace the one lost when Tom Hunt moved full-time to the Parnassus campus. His shock research was funded by the NIH Program Project Grant. His laboratory technician during this period was



Mary Ann Carpenter. (*For Trunkey's biography, see Chapter IV.*)

Frank Lewis

Frank Lewis completed his training in 1974, and with Art Thomas's assistance, secured an extracorporeal membrane oxygenation (ECMO) grant, which initially supplied his salary. When the ECMO grant ran out in 1976, there was no support available for his salary other than professional fee income. The issue of retaining Lewis was discussed with the faculty. There was a risk that salaries might have to be cut if an increase in income the following year did not cover Lewis's salary. Everyone agreed that despite the risk, Lewis should be appointed, and he was added to the full-time faculty on soft money in 1976. Fortunately, income from grants and professional billing more than adequately met salary and research needs in the next two years. (*For Lewis's biography, see Chapter V.*)



Additional staff support

After Blaisdell's appointment, Dunphy helped out staff coverage by assigning a visiting fellow from Australia, Bruce Conolly, to SFGH on January 1, 1967. Conolly, who stayed for one year, was a well-trained young clinical surgeon from Sydney Hospital. He took a share of emergency and elective coverage and, in addition, became fascinated with hand surgery. When Gene

Kilgore made his once-a-week rounds on the Hand Surgery Service, Conolly participated, and he observed Kilgore's private practice, as well. Upon his return to Sydney, Conolly established Australia's first hand service at Sydney Hospital—one that subsequently received worldwide recognition.

During the initial years of Blaisdell's tenure, his NIH grant in Cerebrovascular Disease, which had been used to start the vascular fellowship at the VA, continued at SFGH. The fellows served as junior attendings and helped follow the vascular cases. Lou Buscaglia, who completed his UC chief residency in June 1968, came with Blaisdell as a vascular surgery fellow. Peter Braunstein and Tom Maxwell provided additional staff support as fellows in the years 1968-1970. The last clinical fellow was Robert Allen—Bob was essentially a fellow in trauma, as his year was spent organizing the ambulance paramedic program.

SURGICAL SPECIALTIES

In 1966, the status of the surgical specialties and their subsequent development was as follows.

Anesthesia

Longstanding problems related to a lack of adequate anesthesia staff had been resolved in 1960. Under the new University-County contract negotiated by Leon Goldman, money was provided for Anesthesia Services. The UC Department of Anesthesia, under the leadership of Stuart Cullen, placed a full time member of their Department, Ernest Guy, at SFGH and then initiated the rotation of anesthesia residents.

Guy was a strong leader and had the respect of the surgeons. He was elected chief of staff in 1967 and initiated planning for the new hospital. He abruptly quit one day in 1970 and without any explanation returned to his home in Georgia. The University had turned strongly academic, and his professorial advancement in the full-time system presumably had been turned down.

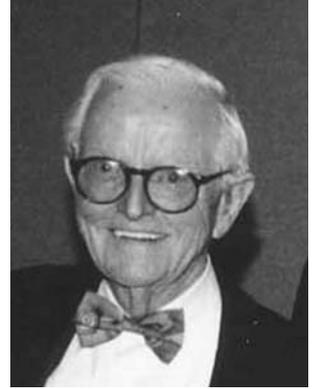
After quite a prolonged search, Phil Larson, an associate professor in the Department, was appointed to succeed Guy. Phil was a rising star in the Department at UC. He delayed his coming for about six months and, during that interval, was offered and accepted the position as chair of Anesthesia at Stanford. However, Larson agreed to come to SFGH for a year or until the position was filled.

In 1972, Barrie Fairley, who was chief of Anesthesia at the VA, agreed to take the job. Barrie was outstanding. He was strong both clinically and administratively and became medical director and associate dean in 1978. Barrie was a Canadian-trained anesthesiologist who also had training in internal medicine. He had definite ideas about fluid therapy: "Keep them dry." In this regard, he was in conflict with the surgeons. Also, when he consulted in the ICU, which he frequently did, he criticized fluid management because he believed, as many did, that the respiratory distress syndrome was due to congestive failure from too much fluid and blood.

Regardless of his differences with the surgeons, his relations with them were excellent. He was respected and he, in turn, respected the surgeons. With the introduction of the Swan-Ganz catheter around 1975 or 1976, he changed his opinion about surgery's "fluid mismanagement."

Hand Surgery

Hand surgery during this period was superbly covered by Eugene Kilgore and William Newmeyer. Both Kilgore and Newmeyer were excellent and stimulating teachers and served on a volunteer basis, providing superb clinical care to myriad patients with hand infections and injuries. Gene (*see photograph*) had acted as the primary consultant for this Service since the early 1950s, and in the course of doing so encouraged many of the residents and fellows whom he encountered to enter his specialty. These included Bruce Conolly, the leading hand surgeon in Australia, and William Schecter and Robert Markison, all of whom served on the SFGH faculty.



Eugene Kilgore

Orthopedics

Orthopedics was one of the few surgical specialties that had switched over to full-time coverage by 1966. During the 1940s and 1950s, Frank Cox was chief of Orthopedics on the Stanford Service. Ted Bovill had finished his training at Michigan in 1954 and joined Cox in practice. When SFGH moved toward full-time coverage in 1961, Ted accepted a full-time position in the UC Orthopedic Department and became chief of Orthopedics at SFGH. His expertise in fracture management served as an important part of the Trauma Program development. Ted was such a gentleman that there was never any conflict between surgery and orthopedics.

Mike Chapman joined Ted Bovill when Mike finished his training in 1975. When Lorraine Day finished her training in 1977, she was added to the group.

Bovill, with Chapman's assistance, pioneered in the immediate fixation of fractures. This was the key to successful management of blunt trauma. Until aggressive orthopedics came about, most long bone fractures, specifically pelvis and femur, were treated by traction, which required prolonged immobilization in bed with all the associated complications. The Surgery Department recognized very early that the optimum time to stabilize fractures was as soon as possible following the injury and encouraged the orthopedists' aggressiveness. This concept was given further support when Don Trunkey returned from Texas with the information that immediate fracture fixation was also being carried out at Parkland Hospital.

Although extremely controversial at the time of its introduction, this “radical new method” markedly lowered the incidence of mortality and the serious pulmonary complications in patients with long bone fractures.

Neurosurgery

Neurosurgery was a major problem for the new Trauma Service because the dramatic increase in injury cases had resulted in a need for better neurosurgical care. Initially in this period, neurosurgical coverage was provided by neurosurgeons from the community. For the first five or six years of Blaisdell’s tenure, he begged the Neurosurgery Department to provide full-time staff.

Finally, this was accomplished when Charles Wilson was appointed chair of Neurosurgery. Charlie, an extremely competent surgeon and administrator, developed an outstanding program at UC. In 1974, he recruited Julian Hoff, a brilliant young neurosurgeon, to lead the SFGH program. Buz, as Hoff was known, brought a research program on head injury that was added to the Program Project Grant. Above and beyond that, he fit in beautifully with the young staff. He essentially functioned with the help of only a chief neurosurgery resident, but now neurosurgical problems were well covered.

Urology

Frank Hinman was chief of SFGH Urology in 1966. Frank’s father had been chair of Urology at UC, and Frank had been a candidate for that job. When he was not selected, he remained in private practice and volunteered his services at SFGH. Hinman was extremely productive academically in his specialty and, in 1960, melded the two University SFGH Urology Services into one. Of all the services that were still covered by part-time attendings, there was no question that Hinman did the best job. He had little interest in participating in trauma, but he did respond when there were complex bladder and urethral injuries. He retired in 1976, about the time of the move into the new hospital.

Jack McAninch, a military retiree, was recruited in a full-time position as Hinman’s successor in 1976. This proved to be an outstanding appointment, as McAninch was dedicated to trauma. His service has been considered the number one Urologic Trauma Program in the Country. McAninch was recognized in his specialty by subsequent appointments as chair of the American Board of Urology and as a regent for the American College of Surgeons.



Jack McAninch

Otolaryngology—ENT

Volunteer clinical faculty ran the ENT service during most of this period. Initially, it was not a particularly aggressive department, and its staff were not eager to participate in treating maxillofacial trauma. However, in 1974—when Francis A. Sooy, the previous chair, became Chancellor—the University recruited a new Department chair, Roger Boles. Boles was from the Iowa School of aggressive surgery. He brought a major head and neck cancer program to UCSF, and ENT wanted their share of cancer patients, both at the University and particularly at the County. In 1975, he recruited Roger Crumley, a young ENT surgeon from Iowa, who was assigned full time to SFGH. Roger was well trained in trauma and got along well with everyone. In 1979, Roger left to become chair of ENT at UC Irvine.

Plastic Surgery:

While all other specialties were becoming full-time departments at the University, Plastic Surgery remained a division of the Surgery Department. This division was one of the last to participate in the full-time system. It had been run, since its inception, by a clinical plastic surgeon, Dr. Harry M. Blackfield, who was based at Franklin Hospital. Blackfield was a giant in the field, and only after he retired was the way open for a full-time Plastic Surgery Division at UC.

The first full-time UC chief of Plastic Surgery was Steve Miller, who was a recent graduate of the program. The clinical attendings, who had been trained by Blackfield, never gave Miller the respect that was his due, and Miller ultimately left for another academic job in the Eastern United States. As soon as Miller was appointed chief in 1974, the entire volunteer faculty served notice that they were too busy to cover SFGH. Miller personally did his best to help SFGH—plastic surgery expertise was badly needed to help in reconstruction of burn and trauma cases.

In 1978, Luis Vasconez, an outstanding reconstructive plastic surgeon, was recruited to take over the division. Lou Vasconez developed a nationally recognized program and shortly thereafter provided full-time plastic coverage for SFGH.

INITIAL SURGICAL SERVICE ORGANIZATION

In 1966, when Blaisdell returned to SFGH as chief of the Blue Service, Carl Mathewson—Matty—was chief of the Gold Surgery Service. Matty would be retiring within two years and, in the interval, turned over administrative responsibility for both services to his protégé. The UC and Stanford volunteer faculty were combined. The volunteer staff, who had covered the emergency weeks on both services, abdicated emergency coverage. At this point, the full-time staff—initially only Blaisdell and Hunt—covered the emergency room cases.

Until Blaisdell's arrival, the primary clinical coverage of the residents had been by volunteer clinical faculty. They represented former trainees of the

UC and Stanford programs and, as such, were among the leading surgeons in the Bay Area. They took call in rotation for one to two months a year, made rounds with the residents one or two times a week and assisted the senior residents with difficult cases. It was up to each individual attending to decide how tightly or loosely the cases were supervised. The senior residents, in turn, were responsible for supervising and teaching their juniors. The chief resident was in charge of the day-to-day running of the service and organized the teaching conferences and the distribution of operative cases among the housestaff.

Blaisdell established the rule for the attendings that they should be present in the operating room any time there was the potential for major complications or death. This rule for the volunteer faculty remained and was also applied for all staff when the formal trauma service was initiated in 1968. At this point, all but a few of the volunteer attendings were phased out. Medicare required demonstrated supervision of residents if the hospital was to bill for patient care. This rule required that attendings put operative and follow-up notes on the charts of all patients. Those attendings who remained provided specialty services, such as John Anlyan in head and neck cancer surgery and Gene Kilgore in hand surgery.

OUTPATIENT CLINIC

Until 1967, there were no organized clinics at SFGH except for a few specialized areas such as pediatrics, psychiatry, and tuberculosis. Until Stanford Medical School left San Francisco, Stanford and UC vied with one another to provide indigent outpatient services, and the County administrators saw no reason to assume any financial responsibility for outpatient care. After the Stanford Medical School moved to Palo Alto, the burden for outpatient indigent care was thrown on UC, and its clinics were overwhelmed. For the next five years, UC insisted that the County Supervisors assume financial responsibility for the provision of outpatient services and develop the appropriate clinics to handle the County's load. It was not until November 1965 that the County Board of Supervisors came up with the necessary funds.

At that point, planning for the clinics needed to be initiated and a budget developed. The Department of Medicine was not interested in outpatient clinics and the planning burden fell to the Surgical Service and was assigned to the newly arrived Tom Hunt. Hunt developed the proposal for Medical and Surgical Clinics, which involved the use of the nursing home facing 23rd Street. The basement of Building 90, which housed ob-gyn and pediatrics, would be used for their Clinics. The Family Practice Program existed only on paper.

In July 1966, a plan had been developed and a budget was proposed and accepted by the Supervisors. Just before opening the remodeled nursing home, the Board of Supervisors cut funding for personnel in half, and the issue was whether to accept the partial budget or tell the County to forget it. The medical staff, led by the Surgical Service, held firm. The staff would not open the clinic with an inadequate budget. Finally, the Supervisors capitulated and restored the budget, and the clinics were opened in January 1968.

When the clinics were first proposed, the plan was to recruit a clinic director who would develop a family practice program, as the Department of Medicine, from the start, indicated that they could not staff full-time general clinics. Hunt—who had been the primary developer of the clinic proposal—by that time was being pushed hard. He was trying to run the wound-healing laboratory at UC, tend the Gold Service, and administer the mixed surgical internship. It was decided to recruit someone to run the Surgery Clinic on the part-time salary that was available from the City. As the Department of Medicine did not want to take initiative for organizing their clinics, the Surgery Service recruit, Muriel Steele, was placed temporarily in charge of all clinics—a position that carried a full-time salary.

Muriel Steele's appointment proved to be an outstanding decision in all respects. Steele was an excellent administrator. When Don Fink was finally recruited in 1972 as overall outpatient director, he asked Steele to remain in charge of the Medical and Surgical Clinics while he developed the Family Practice Program and the city outreach clinics. After Steele's death, the Surgery Clinic in the new hospital was named after her.

MISSION EMERGENCY

During its entire history from 1915, when the brick hospital opened, until 1966, the Emergency Service had occupied the first floor, west of the 22nd Street entrance of the Emergency building. In 1966, Mission Emergency Hospital (MEH) remodeling, which had been ongoing for some two years, was completed, and the service moved from the west wing to the east wing. The remodeled emergency area contained a large resuscitation room on the right (south) side and two smaller treatment rooms on the left. In the back were an eight-bed female holding area and a 12-bed male holding area, both large, open wards. There were two jail cells for psychiatry patients and a pediatric evaluation area. The main nursing desk was situated in the center of all the activity. The operating rooms were conveniently located on the second floor and were accessible through a small central elevator.

Gladys Jones, the chief nurse during the period 1966-1976, retired at the time of the move into the new hospital in 1976. However, the dominant force was Mrs. Margaret Fogler, the evening head nurse. The evening was when most of the action occurred, and Mrs. F. was always on top of everything. If she suggested that a resident should look at a patient, the resident had better do so. Fogler could size up a situation at the bat of an eyelash, and she rarely made a mistake. When she was around, the surgical staff had full confidence that there would be order and discipline, and no nonsense. When she reached the obligatory retirement age in 1975—what a great loss!

During Bill Silen's tenure as chief of the Blue Surgical Service in the early 1960s, the responsibility for the emergency room (ER), which had been administered for the nearly 100 years of its existence by surgeons, had been passed to the Department of Medicine. Silen had little interest in the ER and Norman Sweet, a very nice, elderly internist, was put in charge. He was not an effective administrator, and he had problems controlling his own residents, let alone the surgery residents.

Blaisdell expressed shock at the disorganization of staff coverage and the lack of supervision of the housestaff. He started lobbying, almost immediately on his arrival, to reclaim administrative responsibility for the Emergency Service. As it was recognized that things were not going well, his request was granted within six months of his appointment.

Bob Lim joined the staff in July 1978 and was appointed chief of Mission Emergency. The surgical staff made it a rule to start morning rounds in the Emergency Department, and the faculty member on call looked in again in the evening before going home. What this succeeded in doing, in addition to bringing discipline to the area, was to capture surgical material that would have otherwise been missed. Often these were incidental to the patients' complaints—for example, hernias that needed fixing or rectal problems that would have been ignored; and there were patients with gallbladder disease whose symptoms had resolved, but who would still benefit from cholecystectomy.

Lim was just the right person to provide the oversight and organization Mission Emergency needed. With his appointment, administrative coverage was insured and remained so until 1984, when the Surgery Department gave up its responsibility for MEH. Lim's relationships with the nursing and housestaff were superb, and morale during his tenure was high. MEH needed the discipline that Surgery could provide. Moreover, Mission Emergency was the "spice" that made the hospital a unique training experience!



Critical Emergency Coming In

Lim encountered many administrative problems, particularly in dealing with the Medical Service. Medical Service residents wanted to work up patients in the ER, even when a patient obviously needed admission. These patients kept the beds filled and strained the nursing staff. The problem in MEH was complicated by the advent of "The Boozer Cruiser." This came about when director of Public Health Frank Curry defined alcoholism as a disease rather than a criminal condition. Until then, alcoholics found on the street had been treated by jailing. Now, instead, a City ambulance was designated to patrol San Francisco's Tenderloin District and bring in alcoholics for fluid resuscitation and sobering up. Lim negotiated with the Medical Service to allow the ER staff to admit patients over the protests of the residents and persuaded the Medical Department to develop a sobering-up ward to which alcoholics could be admitted.

Lim negotiated an agreement with all services that a six-hour stay in MEH was the maximum time allowed for any patient. At the end of that time, "If still in doubt, admit." In order to deal with the patients with minor problems who were presenting to the ER, he established an experimental drop-in clinic, manned primarily by nurses. This drop-in clinic was such a success that it was continued as standard practice, and an acute care clinic became an essential part of the new hospital emergency room.

Mission Emergency was an exciting place to be. It was a “black box” of interesting problems that challenged diagnostic and technical skills. Until 1966, it was the only emergency room in the City. However, the private hospitals soon found that, with the introduction of MediCal, the ER was a source of revenue and hospital admissions. Gradually, between 1968 and 1975, all the major hospitals in San Francisco, including UC’s Moffitt Hospital, opened competing ERs. Nonetheless, because the City ambulance system was the prime responder to all major emergencies and would transport cases only to Mission Emergency, the SFGH emergency room maintained its monopoly on serious cases.

THE NURSING SERVICE

The Nursing Service at SFGH had been outstanding in the 1960s and before the mid 1970s, when it was led by an exceptional director of Nursing, Irene Pope, who recruited experienced, and highly competent nurses to fill the senior positions. However, the nursing leadership took a militant stand in 1974, insisting that supervisory nurses should be required to have a Master’s degree. This requirement was resisted by the political structure and, when it became obvious that the Public Health Department would not support it, the nursing leadership resigned en masse, effectively decapitating their Service. The leaders of the nursing administration that followed initially lacked the experience of their predecessors.

THE INTENSIVE CARE UNIT

The remodeling of the last of the clinical towers, the Ten Building, that closest to the Mission Emergency building was completed in 1966, just as Blaisdell arrived. The wards, which had previously been labeled alphabetically, after remodeling were labeled by numbers. Ward 12—the second floor of Building Ten—had been remodeled as a Medical-Surgical intensive care unit (ICU). Initially, the Department of Medicine had little interest in participating in the ICU. Until 1970, when Hibbard Williams became chief of Medicine, it was the exclusive province of Surgery. From that point on there were occasional general medicine cases admitted to the ICU, but by that time the Coronary Care Unit had been developed in the 30 Tower, together with a Pulmonary ICU in the Tuberculosis building.

Initially, the ICU was used for postoperative management of major surgical cases. As the caseload in trauma increased, it became dominated by patients



ICU Rounds circa 1968. Blaisdell, Lewis & ICU Nurse

with major life-threatening injuries. The ICU, first at the VA and now at SFGH, served as Blaisdell's clinical laboratory. Before recognition of the acute respiratory distress syndrome (ARDS), which emerged gradually in most medical centers during the period 1966-1970, most deaths following critical illness were ascribed to heart failure, about which little could be done. The introduction of blood-gas monitoring during this period documented that most of these surgical patients developed cardiac arrest as a result of hypoxia. The treatment of this "lung failure" was tracheal intubation and positive-pressure ventilation.

Blaisdell had been one of the first surgeons to recognize and publish on the significance of this condition. While still at the VA, he and Robert Lim, together with Albert Hall, had described it as a complication following shock associated with ruptured aneurysms, other critical vascular emergencies, and cardiac surgery. Now at SFGH, it was apparent that, following major injury and especially in those cases associated with shock, respiratory failure occurred that was similar to that previously seen at the VA. At that time, there was great controversy as to whether this syndrome was simply due to overenthusiastic fluid resuscitation—the view Francis Moore, professor of Surgery at Harvard, espoused—or whether it was due to a leaky vascular system with actual hypovolemia, as Blaisdell's group had maintained. This issue produced some crucial conflicts at SFGH, as the Department of Anesthesia refused to believe the problem was due to anything but overenthusiastic fluid administration. The result was that the Surgical Service had to ensure that patients were fluid primed before being taken to the operating room and then fluid resuscitated again after the operation.

Part of the controversy related to whether urine output should be used as the guide to resuscitation, as the Surgical Service espoused, or whether pushing all the fluid required to maintain urine output was responsible for drowning the lungs. If fluid was not pushed, renal failure resulted, whereas—in theory—raising pulmonary vascular pressure sufficient to provide urine output would increase fluid extravasation in the lungs.

The controversy was promoted by the fact that, before the Swan-Ganz catheter was developed, the guide to resuscitation was considered to be central venous pressure (CVP). If CVP was normal, it was thought that lack of urine output had to relate to renal toxicity, not hypovolemia. However, experimental and pathological studies carried out at the VA and subsequently at SFGH by Lim and Blaisdell revealed microemboli and inflammatory changes in the lungs. This was consistent with microvascular obstruction and it was found that if right-sided filling pressures were raised, systemic perfusion increased and renal failure could be avoided.

The advent of the Swan-Ganz catheter, around 1976, resolved the controversy by demonstrating that left-sided cardiac filling pressures were low when renal failure occurred, and raising right-sided pressures sufficiently to normalize left-sided filling pressures restored renal function. In other words, patients were in systemic shock when urine output was minimal and proper shock resuscitation lessened overall morbidity and mortality. The Surgical Service pointed out that, when renal failure occurred, mortality rates

approximated 50%, whereas isolated respiratory failure was associated, at worst, with a 20% mortality rate.

Initially, ICU staffing was solely the responsibility of the Surgical Service, but the Anesthesia Department insisted that they needed a role in order to obtain approval of their training program. Joseph Lee was the first anesthesia staff member. He joined the ICU in 1969. He shared responsibility with Blaisdell and brought his expertise in endotracheal intubation and ventilator management to the ICU. In 1971, he returned to his home in Toronto, Canada, and Richard Schlobohm was recruited as his successor. Schlobohm was slower to buy into the Surgical Service concepts. He and Blaisdell reviewed the cases together and he finally agreed that the respiratory distress syndrome was characterized by a diffuse increase in vascular permeability. They published the first article clearly defining abnormal lung capillary permeability as the factor differentiating it from high-pressure pulmonary edema associated with overenthusiastic fluid resuscitation and/or cardiac failure.

The SFGH ICU was one of the first joint ventures in the United States. Initially, the shared disciplines were Surgery and Anesthesia. Later, when the ICU moved into the new hospital in 1976, a young internist joined the ICU team. George Sheldon, and then later Frank Lewis, participated as junior ICU attendings.

THE RESIDENCY PROGRAM

From their first initiation in 1879 until 1960, all San Francisco General internships were rotating. This was a balanced internship designed to prepare physicians for general practice. The program had grown to 50 positions by 1960—of them, 25 were appointed by UC and 25 by Stanford. After Stanford abandoned its services at SFGH in 1960, its internships were converted to what were called mixed internships, one with a medical and one with a surgical orientation. The mixed medical internship emphasized medicine but still included two months of surgery, and the mixed surgical internship had four months of medicine and the rest surgery. There were no focused internships in pediatrics, gynecology, psychiatry, tuberculosis, or infectious disease.

During that period, the internship was separate from the residency, and—during the middle of their internship—those interns wanting further training needed to apply for their residency. If they were not accepted by UC, or if they wished to go somewhere else, they had the problem of taking time off from their internship to interview. There were twelve mixed surgical interns at SFGH, of whom four to six might be accepted by UC for the surgical residency. The VA Hospital originally had its own surgical residency but no interns, as was also true of the Public Health Hospital and the Children's-Presbyterian Hospitals.

UCSF had a straight surgical internship that had six intern positions. However, at that time, in 1966, UCSF accepted 12 to 18 residents for the first year of the five-year residency. In the late 1960s and early 1970s, many of the residents went into a surgical specialty after one or two years of general surgery training. Others went elsewhere because, in 1966, there was still a pyramidal

system at UCSF that ultimately narrowed down to six chief general surgery residents. By 1966, the UC residency consisted of rotations to Moffit, Franklin, SFGH, and the VA. In 1968, Children's Hospital was added to the UC rotation when Victor Richard's combined Children's-Presbyterian residency was melded in.

The mixed surgery internship at the County was the responsibility of the surgical chiefs. Bill Silen turned the administration of this program over to Tom Hunt when he left in April 1966. The mixed surgery internship was melded into the UC straight internship in 1968, when the American Board of Medical Specialties required that all specialty internships be incorporated into their respective residencies.

Dunphy initiated a required research year for the UC residency program in 1966. When a resident elected to take two years in the laboratory, another resident—usually an outstanding one—was allowed to skip research training. This was true in the cases of Sheldon and Trunkey, both of whom skipped research years during their training.

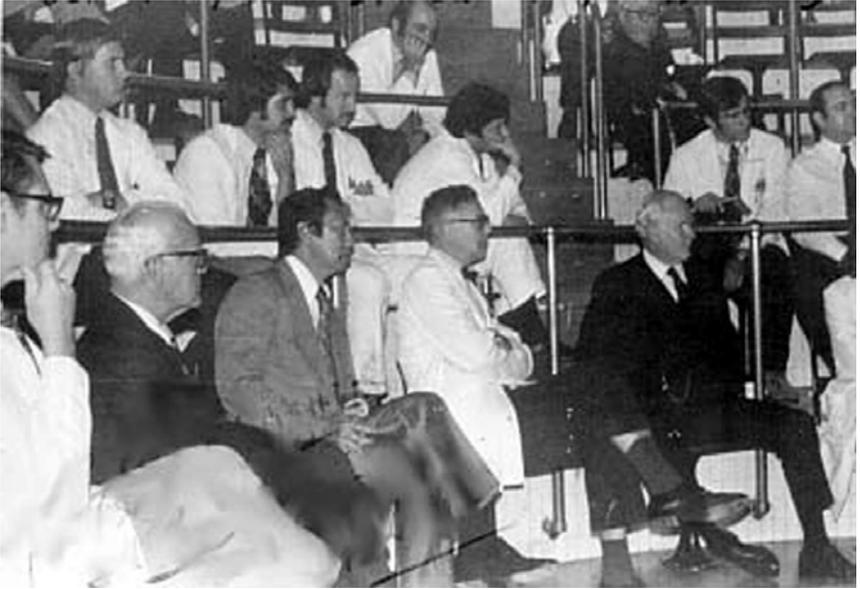
SFGH and the VA were the two places in the system where the residents had a chance to assume responsibility. Some residents had the feeling that no one was looking and they did not have to respond to the same discipline that was expected at the University hospital. Before the institution of full-time staffing at the VA and SFGH, discipline of residents depended pretty much on the chief resident. Strong chief residents and those who had empathy for their patients did not permit any foolishness, but the weaker residents and those who had little empathy might allow or tolerate it.

In 1966, SFGH was particularly vulnerable to the patients' perceived quality of their care. In theory, now that Medicare and Medicaid were available, patients did not have to come to the County Hospital. It was extremely important that attitudes regarding patients remain upbeat and caring. Surgery ran the emergency room, and the policy was that—if no one else, chiefly the internists, would admit a patient who needed hospitalization—then the Surgical Service would take the patient.

The chief of Surgery made it apparent that he held the chief resident accountable for the discipline of his team, and failure to maintain discipline threatened banishment from SFGH. The good residents needed no reinforcing of this policy, but to ensure that there was no discrimination, Blaisdell made it a point, during nearly every chief resident's initial tenure, to lay down the rules to him or her in front of the ward team. By indicating that the chief resident was personally responsible for maintaining discipline, the chief resident's hand was strengthened. This ensured that the Surgical Service would be respected by the hospital staff and by the patients. There were two unpardonable crimes: failure to treat patients with respect, and gross dishonesty. Repeat offenders—who fortunately were very few—were banished from the hospital. Lack of competence was not a reason for dismissal if it was felt that the resident was working hard to improve.

Teaching activities were held primarily on Wednesday mornings. Grand Surgical Rounds were held in the old amphitheatre above Mission

Emergency. Tumor Board and Pathology Conference followed. At noon, there was Chest Conference in the old Tuberculosis building where, first, William Lister “Lefty” Rogers and then, later—Art Thomas presided. Elective Surgical Conference was held late in the afternoon, at which time the operations proposed for the following week were presented and discussed.



Grand Rounds in Surgical Amphitheatre

It was during this period of the 1960s that there were remarkable changes in the SFGH housestaff. The student activism at UC Berkeley was being reflected by activism on the part of the interns and residents. The introduction of Medicare and MediCal, and the resulting insistence that there be only one standard of care, resulted in a change in the attitude of the interns. Why should they work for nothing when they were providing essential medical care? Why should their education be compromised by doing menial jobs, such as running down xrays, making patients' appointments, transporting patients to and from xray, drawing blood, and starting IVs? Angry meetings ensued and, although wages were a critical issue, the conservatives in the group felt it would be self-serving to put their demands for higher pay above the needs for better patient care.

The precipitating incident, which rapidly became a cause célèbre in 1967, was housestaff parking. At that time, the designated spot for interns' and residents' parking was in the lot behind the 30-40 Building. When others began to park in the lot, the interns bought a lock and chain and barred the entrance to the parking lot. Hospital administrators cut the chain and insisted that the housestaff did not have exclusive parking rights. This situation precipitated a mass demonstration and a threatened strike, and all the other issues were brought into play. The administrators panicked and assured the interns that their demands would be met. The wrangling went on for several years, with different administrative bodies promising to meet, and others denying, the housestaff requests. One year, it would be the Board of Supervisors who approved, whereas the Mayor disapproved. Other years, the Department of Public Health would

“forget” to put the item in the budget submitted to the County Board of Supervisors.

Meanwhile, the arguments among the interns and residents went on. Could they, as doctors, legitimately refuse to provide patient care? Finally, in 1970, they hit upon a plan: the “Heal In.” In this plan, they would refuse to discharge patients. The first “Heal In,” lasted four days and brought agreement to raise housestaff salaries, hire ward secretaries, increase the number of orderlies, and start a phlebotomy service. In order to fully accomplish their goals, another “Heal In” was required in 1971. Now, for the first time, interns and residents received a living wage and their work environment was markedly improved.

Nonetheless, the housestaff were not completely satisfied. They took an anti-establishment attitude, abandoned residents’ and interns’ whites for informal wear that included tie-dyed T-shirts and even partial military uniforms. One resident wore a gun belt in which he kept his medical armamentarium. They demanded positions on all the hospital committees and issued a newsletter. This activism persisted during almost all of the 1970s, but gradually became less strident and implacable.

One notable event occurred when the housestaff were being courted by the Teamsters Union. The Teamsters offered to demonstrate their effectiveness by their ability to obtain representation for housestaff on the Hospital Executive Committee.

George Sheldon, a resident at the time, was asked by the UCSF Dean’s office to represent the School. The meeting occurred under Union procedures, with each side sitting on opposite sides of the table. Sheldon noticed that the Family Medicine resident, who had been carrying a picket sign, looked very uncomfortable, so during a break in the dialogue he checked with the SFGH Dean’s office. They provided the information that the Joint Commission on Accreditation of Hospitals (JCAH) allowed residents’ representation on the Executive Committee. Moreover, the Family Medicine resident at the negotiating table that day was the designated resident to the Executive Committee—but actually she had attended fewer than a third of the meetings!

When the Teamsters’ demands became unpleasant and the moment seemed propitious, Sheldon asked the resident if she were not already a representative on the Executive Committee. When this was confirmed, the teamster just looked at her, picked up his papers and walked out.

Through all of this activism, the surgical residents were the conservatives in the group. They continued to wear their white uniforms and respond to authority. As such, they acted as a modifying force against the activism of their medical colleagues, particularly since it was recognized that their work hours far exceeded that of any of their colleagues.

The chief residents during this period were on a long leash, which still included independent operating and decision-making. That aspect of resident training has been gradually lost. However, tighter supervision and accountability has not hurt the quality of the product. Blaisdell demanded accountability. He would support residents if they communicated well and acknowledged errors.

His approach to patient care and the resulting imprint on his graduates is without equal.

MEDICAL STUDENTS

The medical student core clerkship in Surgery was based at SFGH, and the clerkship was run first out of Silen's office and then Blaisdell's office. Under SFGH's leadership, the core curriculum was laid out, lectures organized, student rotations determined, and final exams made up. Teaching at the medical student level has always been most difficult because the cycle is repeated at least four times every year, and it is hard for staff to maintain enthusiasm when—every six to eight weeks—the cycle starts over again. Even though the surgical staff at SFGH carried the bulk of the medical student teaching load, they maintained their enthusiasm for teaching. In addition, the Department as a whole did well because Dr. Dunphy was an excellent teacher, and his example was a stimulus to the entire faculty.

While on their 3-month clinical clerkship during the third year, the students spent half their time at SFGH. The other half of their rotations was spent at Children's Hospital, the VA, or Moffitt Hospital. Blaisdell's secretary collected all the evaluations and, after Department Committee concurrence, submitted the final grades for the students. The staff at SFGH consistently won outstanding teaching awards, both within the Department and school-wide.

During these 12 years, while SFGH ran the core surgical teaching, the curriculum went through a number of cycles, from lectures, to no lectures using case teaching methods, and then back to lectures again. Based on student evaluations, the conclusion was that change, in whatever direction it goes, is refreshing. By abandoning lectures after four or five years, then coming back to them with a new series of lectures and a new group of enthusiastic faculty, ensured a stimulating teaching environment. This variation avoided some of the burnout that resulted when faculty gave the same lecture over and over again. The case method works well but was more demanding for the faculty, as it required a far greater time commitment. In any case, the students did very well on the surgical section of National Boards, as demonstrated by the fact that average grades in Surgery were higher than in any other department.

THE TRAUMA SERVICE

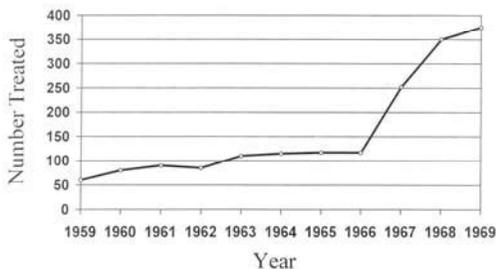
Blaisdell conducted weekly staff meetings that were usually an analysis of how the service was running. The introduction of full-time surgical clinics in 1978, combined with a marked burgeoning activity in the Emergency Department, made it apparent to the staff that reorganization was needed. The two mirror Blue and Gold services had to be changed to accommodate these conflicting activities.

The SFGH Surgical Program was reorganized on a formal basis on July 1, 1968. Until then, each service had only a one half-day follow-up clinic, which was held in the basement of the 90 Building, as were all other clinics. Now it was necessary to run full-time morning and afternoon surgery clinics.

The demands of the emergency service made it difficult to ensure that surgical staff and residents were available to cover regular clinics. This problem was compounded by the fact that the number of trauma emergencies was escalating dramatically. The Viet Nam War protests started in 1966 and continually escalated as the “flower children” flocked to the Haight-Ashbury District of the City. This influx brought with it the drug culture, which almost overnight changed the City from a benign place to a city associated with violence.

Carl Mathewson had been interested in trauma, and all of the Stanford attendings had been part of his military unit—the 59th Evacuation Hospital—during World War II. When it was suggested that the Gold Service be converted to an exclusive Trauma Service, Mathewson was ecstatic and supportive, as was Dunphy. In addition, the chair of Surgery brought the news that NIH was encouraging the development of Trauma Centers and was about to start funding research into trauma.

SFGH Shootings & Stabbings Treated 1959-1969



Dunphy helped the reorganization by assigning several more junior resident positions to SFGH, who were used to increase the capability of the Gold service. From that point on, its primary responsibility was to be limited to Mission Emergency. It would have two half-day trauma follow-up clinics to run, but the remaining clinics would be the responsibility of the Blue Service, now called the Elective Surgery Service.

The Blue Service became the service that had responsibility for covering the clinic and ward consultations. All of its admissions would come from these sites. One second-year resident was assigned to cover the clinic full time. The clinic was organized on the eastern one half of the second floor of the Nursing Home. Each faculty member was assigned a full day of clinic coverage. Muriel Steele supervised the area and kept after the surgical staff to meet their clinic assignments. Gradually, because of different interests developing among the faculty, specialty clinics emerged. For example, one of Blaisdell’s two half-day clinics was made into a Vascular Clinic. Steele had an interest in Colorectal Surgery and developed a thriving clinic. Lim had developed a major vascular access practice, so he ran a subset Vascular Clinic to look after those patients. Sheldon ran a Nutrition Clinic, and Trunkey covered the Trauma Clinics.

The initiation of the Trauma Service was timely. The City was going wild—police officers were being shot, bombs were set off in the police department; there were riots in the

TRAUMA 1972-73 San Francisco General Hospital

Auto accidents	5,606
Assaults	3,400
Stab wounds	1,050
<u>Gunshot wounds</u>	<u>756</u>
Total (two years)	9,806

Haight-Ashbury District and at San Francisco State College. The Trauma Service was constantly in the news.

The Trauma Service consisted of two teams of interns and residents. Each team worked days one week and then nights the next, switching every week from days to nights and vice versa, as had been the case when two services were involved. Robert Stallone was the first trauma chief resident, and he helped a great deal in advising how the residents should be organized. Later that year, John Mehigan, when he was trauma chief resident, pointed out that the 12-hour shifts weren't optimal because there were so many critical patients that it took too long to jointly round twice a day. Therefore, he and Sheldon were charged with the responsibility of civilizing the call schedule as much as possible. The trauma residents' rotations were changed to 24 hours on and 24 hours off. The entire team would make morning rounds. The night team would finish any operating room cases they had pending and clear any cases they might have referred to the morning clinic, after which they could go home. The chief resident, as had been the case in the past, was required to stay in-house, but now—instead of every other week off, as had been the case when there were Blue and Gold services—the chief spent two months straight in the hospital.

Federal recognition of Trauma Centers began in 1971-1972, and SFGH was one of nine in the first group so designated. Since California's Senator Cranston had sponsored Trauma Center legislation, he was invited to dedicate the unit; which he did in April 1972. Mayor Joseph Alioto, director of Public Health Francis J. Curry, and president of the San Francisco Board of Supervisors Dianne Feinstein participated. Emily Black, head of the Trauma Grants Section, represented NIH.



TRAUMA CENTER DEDICATION
Monedero, Blaisdell, Senator Cranston

The “320 Club”—the chief residents’ suite—was the only saving grace. It was a nice suite of rooms in the northwest corner of the third floor of the Administration Building, and it became the social club for the hospital. The Friday afternoon and evening TGIF (Thank God It’s Friday) parties were the social event of the week. When Brent Eastman was chief resident, he persuaded the hospital engineers to install an improve telephone system and a television in the room.



Trauma Resuscitation in Mission Emergency
Neil Olcott, Peter Noyes identifiable

The Trauma Service was so exciting and so busy that the chief resident was never bored, and over the years there were very few protests about these two months of confinement. Alternatives were suggested from time to time to relieve some of the captivity. The senior residents voted down all suggestions. It had become a “macho thing”—something that the women residents also wanted to continue.

Each of the two in-house trauma teams was led by an intermediate resident and had two interns plus one or two senior students as acting interns. Two intermediate residents covered the emergency room (ER), each working 12 hours on and 12 hours off. Two surgery interns supported each ER shift.

During the late 1960s and early 1970s, the planning and construction of a new SFGH was constantly under attack. The County Medical Society had lobbied against the bond issue for the new hospital before it was passed in November of 1965. From that time on, the City’s private hospital lobby, as well as some conservative physicians and politicians, kept up constant agitation, declaring that the new hospital was unnecessary. “At least,” they suggested, “the planning for the new hospital should be delayed until the full impact of

Medicare and MediCal has been realized.” Due to changes in health care delivery, San Francisco’s private hospitals were having financial problems and had many empty beds. A number of private hospitals closed. Thanks to the publicity SFGH was obtaining because of trauma care, SFGH was being recognized as a community resource. The attitude of the public was, “You might not want to go there for routine care, but if anything should happen in the way of accident or injury, that was the premier hospital in the region, if not the United States.”

Several private hospitals initiated moves to compete with the SFGH Trauma Program. Presbyterian and Franklin Hospitals were two that were particularly active. Presbyterian managed to get private ambulances to monitor the police radio and, of course, “...if they just happened by the scene before the city ambulance got there, they had no choice but to pick up the casualty and take it to the closest hospital.” However, this plan came abruptly to a halt when one celebrated case taken to Presbyterian was so badly mismanaged that the malpractice threat led them to back away. Moreover, Mathewson, in his retirement, was running their Surgery Clinic, and he came through loud and clear with the point that they had no business trying to take care of trauma.

Franklin Hospital—now Ralph K. Davies Medical Center—was another matter. George Monardo, RK Davies Hospital director, was bound and determined to open a Trauma Center. When his own staff indicated they would not support a trauma program, he tried to recruit some of the SFGH faculty by offering ludicrously high salaries, fortunately without success. The issue that finally prevented its development was that the community surrounding his hospital lobbied successfully against his attempt to establish a helicopter service.

In 1971, the California Legislature passed the Paramedic Act. Cardiac resuscitation in the field was being proposed and the cry was, “the nearest ambulance to the nearest hospital.” Clearly, victims needing cardiac resuscitation represented the entire cross section of the older community. Most were medically affluent, as Medicare covered them. The City ambulance system was the prime responder to emergencies and transported only to City facilities, resulting in critical time delays when patients were under Cardiopulmonary resuscitation (CPR).

Moreover, the private ambulance system, led by George Angotti—owner of two of the private companies—was way ahead of the City ambulance system in implementing a paramedic program. Unfortunately, at this critical time, the City ambulance system was vulnerable because it was without strong leadership.

In 1969, Bob Allen finished his UC chief residency in Surgery. Before starting his surgical residency, he had run an emergency program in Lansing, Michigan. He was the ideal person to develop a training program for paramedics. Allen was recruited to do this, helped by a stipend from the City and by a grant from the Robert Wood Johnson Foundation. He developed the paramedic course that was based at John Adams Community College in San Francisco. As part of Allen’s recruitment, Blaisdell proposed that he be given full authority over the ambulance system, which at that point was being run by a senior ambulance technician. The director of Public Health, Frank Curry, would

not accept this. As a compromise, Allen was given responsibility for staffing the City's "Emergency Hospitals" (better called "First-aid Stations")—Central, Alemany, Park, and Harbor—which also served as ambulance bases.

The situation with the City ambulance system gradually went from bad to worse. There was Union resistance to requiring that all the ambulance personnel be paramedic trained. The Trauma Program was threatened by the policy proposed by the private sector, "The nearest ambulance to the nearest hospital." Every hospital wanted to be a Base Station (Communication Center) for its district. As a result, early in 1977, Blaisdell volunteered to take a sabbatical and run the ambulance system. He would do a study and make recommendations about how the City ambulance system should be organized to interdigitate with the private ambulances and meet the needs for cardiac care.

The new director of Public Health, Mervin Silverman, who succeeded Curry in 1977, didn't understand what was going on but could not refuse the offer for Blaisdell to serve voluntarily as acting medical director. So, from July 1 to December 30, 1977, Blaisdell took his first sabbatical and was given an office in the Department of Public Health. He spent time at all the Aid Stations, rode the ambulances, listened to ambulance attendants gripe sessions, and met with the Hospital Board and with the City/County Committee on Emergency Care. He compiled a report that recommended, first and foremost, hiring a medical director for the ambulance system. In addition, he recommended that the private ambulances should be included in the system and Base Stations should be limited to a maximum of three. The citywide "Aid Stations" should be closed and they should be used only as ambulance bases. The exception was Central Emergency, which had the rape facility and the communication system and was in an area of need. As the result of the report, an effort was made to hire a medical director, but the City salary available was not competitive for a physician. Donna D'Acuti, chief nurse at MEH, was appointed director. She served from 1979-1988 amidst much controversy, but she succeeded in ensuring that all ambulance attendants were paramedic trained.

Trunkey was on Trauma call the morning of the bus accident in Martinez, California in 1976, in which 29 of 51 children died. Trunkey sent San Francisco ambulances, together with Frank Lewis, to the scene and triaged several patients back to SFGH. The Board of Supervisors called for a hearing, intending to discipline Trunkey for dispatching municipal resources to another county. Fortunately, Marguerite Warren—a large, outspoken woman who was in charge of the County Disaster Committee—appeared in Trunkey's defense and gave the Supervisors such a bawling out that they sheepishly concurred with Trunkey's action. This and a number of major incidents related to a cable car accident in which several passengers were injured, as well as the shooting spree at the Golden Dragon restaurant in 1977, called attention to the need for disaster planning. Blaisdell asked Trunkey if he would serve, and Don did with enthusiasm. Trunkey got along famously with Marguerite Warren, and they gave local politicians hell. This led to Trunkey's promotion to the California State Medical Society Disaster Committee, where he became chair. Shortly thereafter, however, he was asked to step down because he was considered too contentious. Later, he was involved with the State Office of Emergency Services and became chair of their Disaster Committee.

EXTREMITY SERVICE

Within a year of its formation, the Trauma Service became large and unwieldy, with rounds being required on as many as 50 to 60 patients. In the 1960s and 1970s there was a parallel epidemic of the complications of drug abuse—most of these patients required admission to the Surgical Service for the treatment of extremity cellulitis, abscesses, and septic thrombophlebitis.

Tom Maxwell, the third of Blaisdell's vascular fellows at SFGH, was impressed with the number of arterial complications of drug injection. Inadvertent arterial injection resulted in extremity gangrene and false aneurysms. His paper reporting his findings received considerable national notoriety.

Gene Kilgore, the hand surgeon, called attention to the fact that extremity cases were being neglected. Extremity injuries and the abscesses and drug problems had a low priority in the overwhelmed operating room. Moreover, the attention of the attending staff was focused on the life-threatening injury cases.

As the result, the Extremity Service was initiated in 1970 in order to decompress 20 or so cases from the Trauma Service. A third-year resident and an intern were placed in charge of this new program. Even though pus predominated, the service had a wide diversity of operative cases and provided excellent teaching of the basic principles of surgery, including hand surgery.

The Extremity Service had its own group of attendings in plastic, hand, and general surgery. At that time, all hand cases were part of general surgery. Some time in 1977-1978, orthopedics began to share in the hand cases because their specialty certification Board required experience in hand surgery.

BURN UNIT

The initiation of the Burn Unit at SFGH was typical Trunkey. When Trunkey returned from Parkland Hospital, he came with an interest in burns. Parkland Hospital had established one of the first major burn centers in the United States, and Charles Baxter, its chief, was one of the leaders in the field of burn care. SFGH had always taken care of burns, but this was not done in any organized fashion. Burn isolation was carried out on one or more of the private rooms off the surgical wards.

When Trunkey proposed that the Surgical Service initiate a burn unit, Blaisdell encouraged him to talk over his proposal with the hospital administrator, Charles Monedero. Trunkey found that Monedero was dead set against the proposal for financial reasons, but Blaisdell had not been informed. Trunkey proceeded to organize a cadre of nurses, got an old bathtub out of the basement and a Circ-electric bed and carried them to an empty ward. He then called the Mayor's office and invited Mayor Joseph Alioto to dedicate the "Alioto Burn Center."



Hiram Polk, Trunkey & Mayor Alioto

Blaisdell, invited Hiram Polk, chair of Surgery at Louisville to come and give a dedication talk. Assuming everything was in order, he called Monedero's office the day of the Mayor's expected arrival to discuss details of the dedication. Monedero, much to Blaisdell's surprise, knew nothing about the unit and blew a gasket, demanding Trunkey's dismissal. However, the wheels of progress that were set in motion could not be stopped. A picture was published in the *San Francisco Chronicle* the day after the dedication showing Trunkey, Alioto, City administrative officer Thomas Mellon, and Department of Public Health director Dr. Francis Curry in the new Burn Unit, all dutifully smiling. Alioto never learned about the dispute, and the director of Public Health found the money to support the new Burn Center.

Trunkey supervised the unit and, for a while at least, it was the only major burn unit in Northern California other than that run by the plastic surgeons at St. Francis Hospital. The St. Francis unit emphasized burn reconstruction and, as a result, they tended to refer all large burns to SFGH, as they were not at all comfortable with critical care. The success of this makeshift unit led to the development of, and the move into, a nice, neat Burn Unit in the new Hospital in 1976. That six-bed unit included what was, by this time, a well-trained group of excellent nurses. Trunkey and Blaisdell served as the Burn Unit attendings.

Another development was the addition of the Burn Foundation. Trunkey had met Andrew McGuire at the National Burn Meeting. Andy and his wife Kay had started a nonprofit foundation in Boston in 1973, directed at promoting flame-retardant children's night attire. When they moved to the Bay Area in 1975, Trunkey, without consulting with anybody, offered the Burn Foundation the use of Blaisdell's original lab on the third floor of the emergency

building. Andy and Kay subsequently expanded their foundation to include the prevention of injury and changed the name of their activity to the Trauma Foundation. This Foundation has grown and expanded, encouraged and promoted by all the subsequent chiefs of service.

OPERATIVE CASES

With Blaisdell's arrival at SFGH in 1966, there was an initial focus on his specialty interest at the VA, which had been cardiovascular surgery. Although Blaisdell gave up cardiac surgery when he came to SFGH, he did bring a heart-lung machine with him, planning to use it for major thoracic vascular procedures.

Initially vascular surgery thrived. The vascular fellows, with the cooperation of the xray department, did all the angiography, and an NIH grant for cerebrovascular research, which involved a randomized clinical trial of carotid endarterectomy, ensured that there were a large number of carotid operations. The five-year NIH grant study, which was centered in the Ward 33 solarium, supported the fellowship. This study ended in 1972, when it clearly showed the benefits of surgery and documented that many strokes were caused by thromboembolism from a carotid plaque—not exclusively by carotid thrombosis or occlusion, as was previously thought. The study then evolved into a randomized study of stroke prophylaxis with aspirin. Blaisdell transferred the grant to Frank Yatsu, the new chief of Neurology.



Trauma Team in Action

The availability of the cardiac pump that Blaisdell had brought from the VA facilitated the repair of ruptured thoracic aortas and later led to the trial of extracorporeal membrane oxygenation (ECMO) for the treatment of acute respiratory distress syndrome (ARDS).

The Trauma Service faculty pioneered in establishing principles for the surgery of trauma. These included principles for the management of major cervical, thoracic, and abdominal vascular injuries. An important contribution was their advocacy of an aggressive approach to abdominal injury. The philosophy was, "If in doubt about the presence of an abdominal injury, exploratory laparotomy is indicated. Patients don't die of surgical exploration—they die of unrecognized injury." John West, Trunkey, and Lim reinforced this philosophy in their 1979 publication in the *Archives of Surgery*. The paper called attention to the high incidence of patients who died of unrecognized but treatable injuries in population centers without an organized Trauma Program. This paper stimulated a nationwide development of Trauma Centers.

The indications for and consequences of splenectomy were studied and led to conservatism directed toward spleen preservation. The Trauma Service was a leader in establishing principles for the management of liver injuries and developed a technique for isolation and treatment of massive liver trauma. Principles were developed for liver resection for trauma and for tumors of the liver. Pancreatic injury was found to be a challenging problem, and guidelines for its management were established.

The SFGH faculty called attention to the high mortality rates associated with complex pelvic injuries and encouraged the orthopedic service to initiate immediate operative stabilization for this as well as long bone fractures. Internal iliac artery embolization was developed as a way of managing pelvic hemorrhage. The importance of colostomy and rectal washout in preventing fatal sepsis following compound pelvic fractures was another contribution.

The surgeons initiated heminephrectomy for selected renal injuries and did the first ex-vivo repair of renal vascular injury. They performed the first lung transplantation in the Western United States. They advocated an aggressive approach to the management of head injury.

SFGH surgeons were among the first to perform adrenalectomy for the treatment of aldosterone induced hypertension. They developed a technique for the stabilization of the chest wall in flail chest injuries, and they identified air embolism as a complication of penetrating lung injury and defined when operation was indicated.

RESEARCH

When Blaisdell arrived in 1966, there was no laboratory bench space available for the Surgery Department at SFGH. Both Silen and Hunt did their laboratory research in the labs at UCSF. Blaisdell negotiated for and received the third-floor solarium in Building 30 for his cerebrovascular research, and the third and fourth floors of the Mission Emergency building for his clotting laboratory and for use in recruiting. The Hospital's Clinical Laboratory had used this area until the old Isolation building had been remodeled for the new Laboratory that had opened in 1964. Pat Lewis, then the wife of Frank Lewis, served as Blaisdell's initial laboratory technician. She was instrumental in helping him set up his coagulation laboratory on the third floor of the emergency building. .

Frank Hinman, the chief of Urology, had one of the laboratories on the fourth floor, but by 1968 it was not being used, and it was reassigned to Bob Lim. George Sheldon, as part of his recruitment in 1971, was given the laboratory on the fourth floor in the northwest corner. Later, the Trauma Program Project Grant group and its administrative staff occupied the space under and behind the third- and fourth-floor amphitheater. The amphitheater itself was used for Grand Rounds, conferences, and medical staff meetings.

In September 1967, the new Pathology building was completed. The third and fourth floors were built as animal research laboratories with NIH funds. The Dean appointed Blaisdell director of the new unit. This unit, which

was to be used primarily for animal research, was christened the Physiological Research Unit. At this point, Blaisdell moved his coagulation research laboratory into the main third-floor lab, and Tom Hunt initiated a wound-healing laboratory in the other main third-floor lab. The fourth floor consisted of animal operating rooms and animal holding areas.

The new Physiological Research Unit served the Surgery Department very well from the start. When it first opened, a nurse, Sue Lyon, was recruited to administer it. It was made available by contract with anyone wanting to work with large animals. A standard charge was initiated that provided sterile packs, supplies, help, and—if a researcher needed them—anesthesia, skin closure, and postoperative care.



Physiological (Animal) Research Unit
(Upper two floors of Path Building)

After organizing the Unit, Lyon became bored by her job, and she left in 1971. Peter Lindquist, a technician who had been working on an electrical anesthesia project with anesthesiologist Robert Smith, took over the job and remained in charge of the labs during this period. Pete was a good administrator but occasionally took too much initiative on his own. He would contract out and provide service to do most anything for a price, including animal operations.

Because of their mutual interest in coagulation, Blaisdell had been advised to meet Paul Aggeler, professor of Hematology, when he first arrived at SFGH. Aggeler had a large coagulation laboratory funded by the NIH and was the discoverer of factor IX in the clotting cascade. He was also an expert on coumadin anticoagulation. Aggeler graciously lent one of his Ph.D. researchers, Jean Robinson, to Blaisdell. Then, in 1971, when he was dying of cancer, Aggeler helped transfer his laboratory to the Surgery Department.

The coagulation laboratory, under Blaisdell, was staffed by two technicians, first supervised by Jean Robinson and then by Charles Graziano. The clinical studies from this laboratory were the first to describe the syndrome of disseminated intravascular coagulation (DIC) in surgical patients. It defined the nature of the bleeding syndromes associated with massive trauma and the need for platelet transfusion. It demonstrated a relationship between intravascular coagulation and the acute respiratory distress syndrome (ARDS).

Starting in 1974, in an attempt to better define intravascular coagulation, the laboratory concentrated on measuring fibrinogen metabolism. Even when patients were supposedly anticoagulated by the clinical criteria of the day, fibrinogen half-life studies showed that many of those patients still had evidence that intravascular coagulation was continuing. This finding led to Blaisdell's radical concepts about the necessity for using massive doses of heparin to treat pulmonary embolism and ischemic limbs. This program was moved to UC Davis when Blaisdell left SFGH in 1978.

On his return from Sweden, Lim also continued his regional shock studies. He documented that a defect in functioning platelets was the most common cause of diffuse bleeding following shock requiring multiple transfusions.

A Trauma Program Project Grant was submitted to NIH in 1968. This program put together Blaisdell's research on intravascular coagulation, Tom Hunt's work on wound healing, and Bob Lim's platelet research, plus an Anesthesia and a Urology proposal.

In the first review, led by William Shoemaker, approval was deferred, as all of the projects had to average to a competitive score. The grant was revised to eliminate the marginal projects and was resubmitted. This time, the Program Project Grant, reviewed by a team led by William Drucker, was funded in 1969. It was renewed in 1971 and included a proposal for studies of red cell 2,3 diphosphoglycerate (DPG) by George Sheldon, who had just accepted a position in the Department. This grant also included support for the coroner, Boyd Stevens, who was doing complete autopsies on all the trauma patients.

George Sheldon returned from Boston in 1971 with interests in oxygen transport and surgical nutrition. His initial studies, funded by the Trauma Program Project Grant, were related to DPG changes in transfused blood and the adverse affect on oxygen transport. Sheldon also obtained research funding from the Department of Defense for his oxygen transport studies, which formed the basis of a natural relationship with the Military in the area.



George Sheldon & his lab tech Cindy

Sheldon's interest in intravenous nutrition provided a breakthrough in the care of massive injuries and soon became the primary focus of his research. Thanks to the development of intravenous nutrition, many patients with critical injuries survived who never would have survived before. Sheldon initiated and ran a hospital-wide nutrition service. His basic research was done on a tethered rat model that he developed during his first year at SFGH. The model provided the ability to compare enteral and parenteral feeding of similar substrate. The work showed that—in humans, as well as animals—the gut is an immune organ. Patients not fed enterally, but fed parenterally, lose their host defense mechanism. Sheldon had a continuous influx of research fellows; almost all of whom went on to outstanding academic careers (*see Appendix*).

When Trunkey returned from Dallas in 1972, he brought with him a technique for sophisticated shock studies that he had mastered while working with Tom Shires at Parkland Hospital. The technique involved cannulating and measuring the electrical potential changes in a living cell during shock. These studies documented that shock was associated with significant intracellular water and electrolyte shifts. These studies were carried out in the new Physiological Research Unit.

Frank Lewis had performed research on a membrane lung before and during his residency. He joined the staff as a fellow in 1974. He was recruited to participate in the national study of the use of extracorporeal membrane oxygenation (ECMO). This technique was being proposed as treatment for refractory lung failure from acute respiratory distress syndrome (ARDS). Lewis became interested in the pathophysiology of ARDS, which led to his developing a sophisticated means of measuring lung water (*see Chapter V*).



Lewis runs ECMO

Carol Miller, Ph.D. was recruited from the Immunology Department at UC Berkeley in 1973. Miller had a joint appointment with UC Berkeley and the Surgery Department. Her trauma immunology program occupied the laboratory immediately adjacent to the coagulation laboratory on the third floor of the Physiology Research Unit. This was the same laboratory used initially by Tom Hunt. During her tenure from 1973-1980, she supervised a constant flow of graduate students who helped with the research. Carol Miller's work on the immunology of trauma was funded in the next Trauma Program Project Grant's renewal. Her principal staff collaborator was Robert Lim.

The Trauma Program Project Grant had three renewals during this period, the last for the five-year maximum. Don Trunkey and Carol Miller's research proposals were added to the grant at the third renewal.

Although the coagulation research portion of the grant went with Blaisdell when he left for UC Davis in 1978, the remainder of the Trauma Program Project Grant remained intact, with Sheldon as the principal investigator. Sheldon remained principal investigator of the Training Grant from the National Institute of General Medical Sciences (NIGMS) until he left to become chair of Surgery at the University of North Carolina. The Trauma Center at SFGH was among the first centers in the United States to receive National Research Service Awards from the NIH. These awards assured funding for two research fellows annually. During the period of Blaisdell's tenure, the faculty published well over 300 papers on trauma, in addition to many other publications not related to trauma.

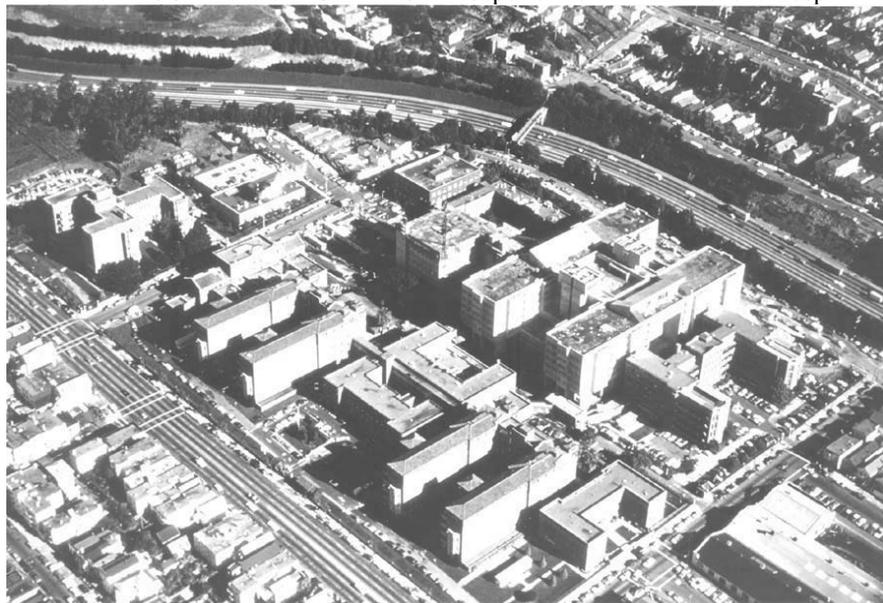
THE NEW HOSPITAL

The move into the new SFGH occurred in August 1976 and constituted a dramatic change in the quality of the environment. Instead of wards, there were now single and double rooms. The old-style open wards, even though they

had been made into cubicles during the decade of remodeling in the 1960s, had not been comparable to the private rooms in the private hospitals.

The operating rooms on the second floor above Mission Emergency in the old hospital were wide open with no doors. The attendings could walk into surgery in their street clothes and peer into the operating rooms. The new operating rooms had protective positive-pressure ventilation and a closed sterile system, and there was rigid enforcement of sterile principles. Nonetheless, it was of interest to note that the wound infection rate—which had previously met the standards of the American College of Surgeons (ACS)—was not affected one iota.

The patients were better off and their morale was better in the new environment. However, the nursing staff were strained, as it was more difficult for them to cover the new ground required when patients were isolated in rooms rather than on wards. This was most obviously the case in Mission Emergency. The pre-existing personnel in the old MEH could not adequately staff the new commodious quarters. The nurses needed roller-skates to get around the numerous treatment rooms, the male and female holding areas, and the new drop-in clinic. In fact, the opening of the drop-in clinic was delayed for a year before the necessary personnel could be obtained. However, the physical layout in the new ICU and Burn Unit was far superior to that in the old hospital.



New Hospital interdigitated with the old during construction

As the census of the hospital had progressively dropped in the years between 1966-1976, from 1,100 patients to 300-400, there was plenty of space in the new hospital. The Surgical Service was given Ward 3A for office space, and Ward 3D provided sleeping rooms for the housestaff, who regretfully abandoned the old administration building and the “320 Club.”

FINANCES

Two economic systems co-existed at UCSF. Until 1964, everyone in Surgery was on the Geographic Full-time System, which meant that the clinical faculty were allowed to supplement a relatively small University salary with the income they generated from private practice. Moreover, not all members of the faculty at UC had University salaries. Even though they practiced full time at the University Hospital and had clinical titles, many supported themselves entirely from private practice.

When Bert Dunphy arrived as chair of Surgery in 1964, only three or four of about six or eight members of the Surgery Department had State a full-time equivalent (FTE) salaries or any form of state support. The University State salary was the same for a professor of English or History as it was for Medicine, and was the same on all campuses. Thus, for practical reasons of retaining physicians, all clinical faculty had been allowed to supplement their income from private practice. This “Geographic System” encouraged clinical commitment and clinical excellence. However, at the University Hospital, it usually precluded the residents from doing operations on the faculty’s patients. Only the clinic service, which treated indigent patients, provided cases for the residents to assume patient care responsibilities. As a result, SFGH and the VA were of prime importance for residents’ training. At those hospitals, the residents could be involved in decision making and function as the operative surgeon.

With the arrival of Dunphy in Surgery at UC, and then Holly Smith in Medicine shortly thereafter, UC elected to adopt the full-time system. Tom Hunt and Fred Belzer, Dunphy’s faculty recruits from the University of Oregon, were the first appointees in this system. Blaisdell was the third. Under this arrangement, the Department billed and kept the money for any clinical services that were provided by the full-time faculty and insisted that salaries be written into all research grants. This provided the money for clinical supplementation, which was the same for all clinicians in the Medical School and was based on professorial level.

Internal Medicine thrived under this system—whereas, under the Geographic System, Surgery had thrived. When surgeons committed themselves to full-time research, as their medical colleagues did, they couldn’t compete for patients with the surgeons in the Geographic System. So when they worked side by side, as was true at UC during this period, the cases tended to go to the Geographic-funded surgeons. This created a situation in which the academic full-time surgeons had a problem maintaining their clinical credibility.

At SFGH, everyone was on the full-time system, so there was no competition for patients. The only problem was to be sure that the surgical staff were involved in sufficient number of cases to maintain their technical expertise and clinical credibility. There were six general surgeons on the staff during most of this period—two covering trauma, two in elective surgery, and two on the extremity service. The staff rotated services each month.

Intense faculty involvement was also the key to the recognition of the Trauma Center's expertise. It was important that resident graduates respected the surgical staff as credible surgeons. This respect then diffused into the community. However, the additional requirements for the faculty to spend time teaching medical students, as well as be productive in research, was a continuing challenge and required a dedicated faculty and an extensive time commitment.

The University financial support for the SFGH surgeons gradually changed. Although Blaisdell was provided with four University FTEs, the supplement required by the full-time system needed to come from soft money—either clinical care or research. With the introduction of MediCal and Medicare, the staff at SFGH could bill for patients' services that they provided. The alternative, used by the Medical Service, was to apply for San Francisco City salaries. However, unless these stipends were for administrative work, any staff receiving City salaries could not bill for professional services. Blaisdell made the decision not to apply for City salaries because he felt Surgery could do better billing for their care. Thus, as the staff increased from the original two—Blaisdell and Hunt—it became necessary to initiate a billing service.

By the time Bob Lim arrived in July 1968, the Surgery Department had started to bill for surgical procedures. This meant that the faculty had to put notes in charts whenever they were involved in an operation, which they had never done in the past. They had to be listed as the surgeon rather than the resident. Muriel Steele, who started as a volunteer consultant in July 1967, agreed to help. When she became a full time faculty member in 1969, she took over and ran the billing machinery. She was a godsend, as she brought her knowledge of private practice billing with her. The first year, the Surgery Department cleared \$80,000 after billing costs. The next year, the Department of Medicine was required by the University to participate in the billing process. Although Surgery's billing effectiveness had markedly increased and the surgeons anticipated at least doubling their income the second year, they were devastated by the report that, after University billing expenses were deducted, their SFGH billing had cleared only \$10,000.

Evidently it cost far more to generate a medical bill than it brought in. The bills submitted by the internists were minimal and their notes for their rounds brought \$10 to \$20. They billed for few, if any, procedures, whereas surgical operations were generating a minimum of several hundred dollars a case. The surgeons perceived that they were supporting a bureaucracy that required them to spend valuable time on paperwork that generated only a pittance of income. The SFGH surgeons were told that they had no choice but to participate in the joint billing process. However, the surgeons stopped signing notes and, within a month of the third billing year, the combined billing process was brought to its knees.

The surgeons indicated that they would agree to restart billing only if they could do so under their own auspices. They informed Dunphy that they would go it on their own, and that there need be no supplement from the University other than the four FTEs provided by the Dean. The Surgery chair readily agreed to this proposition, and the University billing group backed away and left the surgical staff on its own. Needless to say, billing became quite effective and, thanks to Steele's keeping up on all the billing possibilities, a

healthy cash flow developed. This money, combined with salary money generated by research grants, permitted funding of research and travel and substantially augmented base salaries, despite the fact that at least one third of the patients were not billable. Most of the income came about because of the development of the Trauma Program, which had a substantial percentage of third-party payers.

OFFICE STAFF & WARDS

During the period of planning for the new hospital, from 1968-1970, the SFGH Surgery Department was in a major expansion mode. Until 1960, the Stanford Surgery administrative offices had been entirely housed on Ward C solarium (later called Ward 13) and UC on Ward F solarium (Ward 22). Subsequently, when the ten-wing remodeling was completed, a corridor wing had been constructed between the Buildings 10 and 20 and private offices were in place along this corridor. This was where most of the new surgical staff had their offices. The secretarial staff and students were based in the solaria.

With the increase in the number of the surgeons at SFGH, from Blaisdell and Hunt, to Lim, Steele, Thomas, Sheldon, and Trunkey, administrative support had become grossly inadequate. The initial office staff was only a young secretary named Carol Harris, who in her spare time was a nightclub singer. She could take care of Blaisdell's work pretty well, but providing adequate secretarial support for the others was impossible. A fair amount of frustration among the staff related to that issue. Ultimately, Art Thomas took matters in hand and, while Blaisdell was on vacation, recruited a high level administrative assistant and created some additional secretarial positions. Blaisdell returned from vacation to find an assertive and dominating woman in charge. She advised Blaisdell that she would run the administrative aspects of the Department. She moved Blaisdell into a private office in the solarium. Previously, he had been accessible to anyone who wanted to see him, as his office door in the main corridor between Wards 23 and 13 was always open. Now, he was isolated and protected by secretaries outside his office in the solarium—a much less friendly situation that he came to resent.

At his first opportunity, he encouraged his office manager to move on and he strongly supported her successful application for a similar position in the UC Department of Orthopedics. His office relief came with the move into the new hospital—once more he ensured that his office opened into the main corridor, where everyone could have immediate access to him.

As the length of stay for hospital patients decreased and the number of admissions dropped gradually, other space became available. All male surgical patients were consolidated on Wards 13 and 14. Female surgical and orthopedic



Typical Hospital Ward this period

patients were located on Ward 24. Male orthopedic patients were located on Ward 22, and 22 Solarium became the cast room. Ward 23, which had also been a surgical ward, was closed, so the solarium was available as a gathering place for the housestaff and students. Ward 23 subsequently became the location of the Burn Unit. Twelve Solarium was the initial location for the Renal Dialysis Unit. Eye and ENT patients were placed on Ward 25. Ward 15 contained male urology patients.

As the new hospital was being designed, the office space that was planned for Surgery was completely inadequate and made no allowance for Anesthesia or the full time staff in the surgical specialties. The Surgery Department indicated that it would prefer to take its chances and remain in the old hospital. The hospital census continued to fall as the federal programs dictated shorter and shorter stays for illness. Thus, the hospital that was planned to accommodate 700 patients had an average census of less than 400 by the time it was occupied in 1976. As a result, the Surgery Department staff and administration were allowed to occupy Ward 3A on a temporary basis. Ward 3C became the location of the male trauma patients. Ward 3-D became the Female Surgical Ward; Extremity and Plastic Surgery were located on Ward 4B and 4D was the Elective Male Ward.

STAFF ADVANCEMENT

Blaisdell encouraged the staff to participate and be active in professional organizations. He emphasized that, in order to obtain membership, they had to be academically productive. Once they gained membership, they had a ready outlet for their papers, which led to national recognition. He pointed out that participation in professional organizations was a measure of academic attainment, but more importantly it was an opportunity to serve in advocacy roles and influence the advancement of their specialty.

He continually pressed surgical organizations for membership of his staff. He nominated his people, as soon as they became eligible, for membership in the American College of Surgeons, the Society of University Surgeons, the Pacific Coast Surgical Association, the Western Surgical Association, and, most importantly, the American Association for the Surgery of Trauma. Some memberships took unusual directions, such as the founding of the Samson Thoracic Society by Art Thomas—later to become the Western Thoracic Society.

The American Association for the Surgery of Trauma (AAST) is an example of Blaisdell's influencing an organization's composition. Historically, general surgeons had not been the leaders in the field of trauma. The field was dominated by orthopedists up through the 1960s. In fact, the American College of Surgeons Committee on Trauma was originally known as the Committee on Fractures. The AAST had a fixed membership and was an exclusive organization by nature. By 1970, it was out of touch with the epidemic of penetrating injuries that resulted from the violence in the cities due to the protests against the Viet Nam War and the introduction of the drug culture. When Blaisdell first joined the AAST Council in 1969, the AAST executive

committee was still composed primarily of fracture specialists. Blaisdell, John Davis of Vermont, and others met in Washington and rewrote the bylaws. That revision prescribed fixed terms for officers, and gradually the new general surgery trauma surgeons came to be in control of the organization. At the AAST meeting in Lake Tahoe in 1978, Sheldon was asked to be the transitional Secretary.

Efforts were successfully made to open the membership to the full spectrum of traumatologists. The organization is today one of the most vital of all organizations and has assumed the role of the international organization for trauma. The Blaisdell SFGH group has contributed five Presidents to the AAST—Blaisdell, Sheldon, Trunkey, Lewis, and Trunkey's protégé, Anthony Meyer; three Fitts Orators—Blaisdell, Trunkey, Sheldon; and two Secretaries—Sheldon and Meyer.

The ACS Committee on Trauma has had as members Trunkey (who became chair), Blaisdell, Sheldon, and Jack McAninch. The leadership included: as Regents—Sheldon, Eastman, and McAninch; ACS President—Sheldon; ACS Vice-President—Julian Hoff; and recipients of the ACS Distinguished Service Award—Blaisdell, Trunkey. The National Safety Council Award for Distinguished Service has gone to Blaisdell, Sheldon and Trunkey.

The American Surgical Association has been served by Sheldon as President and Secretary and by Blaisdell and Trunkey as Vice Presidents.

The Residency Review Committee has included Blaisdell and Sheldon. The American Board of Surgery has been served by Blaisdell, Trunkey, William Schecter and Anthony Meyer. Sheldon and Lewis have been chairs of the Board. Lewis is currently executive director of the American Board of Surgery.

A PARTING DECISION

Dr. Dunphy retired as chair in 1976. Blaisdell was the strongest internal candidate to replace him. A number of the residents and junior faculty lobbied for his appointment, but the Dean and Search Committee selected an outside candidate, Paul Ebert. Bill was disappointed, but conducted himself with characteristic dignity. It was clear to most of us that he would soon leave to take a chair position elsewhere. He said that he had done all he could to move the SFGH service ahead and that, if he were Paul Ebert, he would put all future resources at the Moffit campus, which needed them more. He said that his choices at this point were to run for political office, as that was the only other thing he could do to further promote SFGH, or move.

When the chair of Surgery at the University of California, Davis became available, Bill nominated several of his staff for the position. He, himself, was prevailed upon to interview and came back enthusiastic about the prospects. He said, "It was a Medical School that had hardly been used yet." There was a lot he could do. He left for Davis in July 1978 and was to spend the rest of his academic life at that institution. As a token of appreciation for what he had accomplished for SFGH, the Surgical Suite was dedicated to him.



Operating Room Dedication

Sheldon, Mattone, Blaisdell, & Director Windsor

INCIDENTS & ANECDOTES

Strike, Strike, Strike

This period was associated with one strike after another. In August 1966, the first nursing strike in the United States occurred when the SFGH nurses walked out. They were being paid less than the street sweepers and the janitors, who were members of strong unions. The next year, SFGH interns threatened to strike—and two years later they did go out on strike when their demands, previously agreed to, had not yet been met. A general City-wide strike occurred the following year. At the height of one of the City-wide strikes, attempts were made by the Unions to close the hospital down. In order to keep the hospital running, many subterfuges were resorted to. Hearses were used to bring in food and supplies through the Pathology Building and its tunnels that connected to the main hospital. At one point, armed men broke into the operating room (OR) and threatened to shoot the nurses if they persisted in working. The crusty nurses simply turned their backs on the strikers, after warning them that they would be accused of murder if they further compromised the emergency operation that was underway.

Laboratory Services

Myron Pollycove, director of the new Clinical Laboratory, had an enormous amount of space, staff, and equipment. However, the housestaff often found it hard to get a simple blood count, especially after the first of January when the budget was running low. Pollycove's response was to initiate the rationing of lab tests, and he came up with an unusual solution—to dispense coupons: so many coupons for a blood count, more coupons for a blood sugar,

and so forth. Unfortunately for the plan, the housestaff—Frank Lewis was an intern then—quickly found a way to counterfeit the coupons. The interns had a “lab in”—they drew gallons of blood and overwhelmed the lab with orders for tests that were fully supported by coupons! “Polycove about had a stroke!” as it was impossible to differentiate the counterfeit from the real coupons.

Drug Scene

In 1967, the *San Francisco Chronicle* newspaper reported that 10,000 young people in the Haight-Ashbury District were using LSD and other drugs.

Bullitt

In 1967, SFGH participated in the movie *Bullitt* starring Steve McQueen. Much of the drama was based in the hospital. When a key witness was wounded, he was admitted through the ER, went through surgery, and was then taken to the ICU. The emergency room (ER), ward, and operative scenes featured SFGH residents and nurses. Charles Jenkins administered ER resuscitation, Bob Allen operated on the patient, and Richard Barber provided anesthesia. Ward 23 was remodeled to resemble the ICU on Ward 12, and the equipment was subsequently given to the hospital. When the movie opened in Times Square, New York City, the marquee outside the theater had a 15-foot high figure of Dick Barber in his scrubs!

Making a Medical Diagnosis

Understandably, the housestaff did not relish “grumous admissions,” but Blaisdell established the rule that, if no service would take a patient who obviously had to be hospitalized somewhere, the patient was to be admitted to the Surgical Service. However, if the patient could be passed off on another service, so much the better. If the surgeons could diagnose heart failure, a possible heart attack, or pneumonia, the patient could be referred to the Medical Service. One resourceful surgical intern applied tuberculin skin tests to undesirables. If the tests proved positive, the patient was transferred to the tuberculosis ward for evaluation and possible treatment—three gold stars!

Hell's Angels

Over the course of the years, there were a number of incidents related to the Hell's Angels. In one instance, one of the bikers was brought in with massive injuries and was given terminal resuscitation. Meanwhile, a hundred or so bikers circled outside Mission Emergency, creating a terrific racket. When they were informed of their colleague's death, the leader demanded his jacket. When the jacket was not delivered immediately, a number of bikers rode right into the ER. The institutional police cowered behind the furniture. Shouting, “Give them the damned jacket,” was the only help they offered. Needless to say, someone dug the jacket out of a property bag and handed it over a hot potato.

Green Ink

To facilitate identification of notes for billing purposes, Blaisdell tried to get the faculty to use green ink. However, the faculty did not take to the idea, and the use of green ink became the mark of the chief. When he made unattended rounds in Mission Emergency and found a patient whom he felt

needed surgery, Blaisdell would put a mark on the abdomen with a note: “Cut here.” He might even draw an outline with a gall bladder full of stones!

The “320 Club”

The chief residents had a corner suite of rooms on the third floor of the Administration Building that was affectionately known as the “320 Club” after the number on the door. There were many incidents involving the “320 Club” and its renowned TGIF parties. When Blaisdell was chief of staff, he insisted that hospital administration do something to prevent after-hours assaults and thefts. One Friday, shortly thereafter, the hospital director proudly informed his chief of staff, “This weekend we are going to have plain clothes officers all over the place, and we will solve some of these problems.” At approximately 5:30 PM that Friday, Blaisdell received a plaintive call from his chief resident. “Dr. Blaisdell, would you please come up to our room? We have just been raided and we are all under arrest.” It seems that interns who were sent out for the beer had brought the cases right through the main lobby and were followed up to the residents’ room by the police. Fortunately, the hospital administrator was prevailed upon to pardon them. This put a temporary crimp in the Friday activity.

Crazy On the Loose

The anesthesia service was conducting experiments on electrical anesthesia in baboons, when one of the animals got loose and escaped out of the hospital to Potrero Hill. The animal supervisor, Peter Lindquist, ran out into the street dressed in his hospital greens with his animal rifle loaded with sedative darts. Shortly thereafter, Blaisdell received a plaintive call from Lindquist: “Chief, please come and help me. The police have me, and they think I’ve escaped from the Psych ward.”

Gorilla Terrorizes Potrero Hill

Immediate search for the escaped baboon was unsuccessful, but he kept appearing in and around the Potrero Hill neighborhood. His escapades were in the newspapers, with such quotes as: “I saw this gorilla peeping into my bathroom.” At last, Peter Lindquist received a call from the police—they had the baboon surrounded. He was in a tree in the park on Potrero Hill. Pete hurried to the scene, shot his sedative dart rifle at the baboon, and missed—then shot again and missed; then shot a third time and missed. “Ah hell,” said a disgusted policeman, who pulled out his pistol. “Bang.” The baboon fell out of the tree. Pete administered CPR and called the Trauma staff for help resuscitating the animal—to no avail.

Sore Thumb

One evening, when she came in for an emergency call, Muriel Steele was attacked in a hospital stairwell by a rapist. The man had met his match. Steele nearly severed his thumb with a bite. Several hours later, when her attacker showed up in Mission Emergency for treatment, he was promptly arrested. Steele suffered little in the way of damage except for her broken glasses.

Chef Kairy

The dining room had a policy that, if a resident was going to be late, someone had to call the dining room to reserve the meal. Otherwise housestaff could wander in any old time and demand to be fed, disrupting preparations for subsequent meals. There was one chief resident who arrived late from a sojourn in the OR and demanded a meal. The altercation reached the level of Chef Kairy, a large, intimidating man who always wore a chef's cap and a red bandanna. The chief resident, who was no match for Chef Kairy in terms of height or weight, continued to harangue the chef, but the chef kept his cool and, rather than pulverizing the resident, reported the incident. The resident was told to go down and apologize. There were plenty of chief residents but only one Chief Cook!

Luncheon in the Buff

One of the rules adopted was that no one dressed in scrubs was allowed in the dining room for the noon meal. One surgery resident, straight from a prolonged morning in the OR, arrived in scrubs and asked to be fed. "Sorry, we can't feed anyone dressed in hospital greens." With that, the resident stripped off his scrub suit and—standing there stark naked—once again demanded a meal!

Gypsies

An elderly member of a Gypsy clan was operated on and was found to have inoperable pancreatic cancer. A call must have gone out, because the hospital was soon filled with Gypsies from all over Northern California. Whole families—men, women, and children—did not just visit to pay their respects, but camped everywhere they could in the hallways, in the front and side entrances, and in any empty room or ward they could find. The staff were besieged constantly for updates and progress reports. Their vigil did not end until the patient's death several weeks later.

A President's Daughter

Blaisdell had not yet met one of UC's new interns when he read in the social section of the newspaper that the intern, who was dating President Lyndon Johnson's daughter, had had dinner with her at one of the City's prominent restaurants. "A Dunphy political appointee, no doubt," he commented to his staff. "That intern cannot amount to much!" He later acknowledged that was the worst mistake in judgment he ever made. That intern was Brent Eastman!

Visiting Clinical Professors

Six times a year, the last week of each chief resident's time on Trauma, a previous graduate of SFGH's residency was invited to spend a week as a consultant for the resident. The "visiting professor" lived in the "320 Club," consulted with the chief resident, and helped him or her with emergencies. This interchange permitted the visitor to catch up with what was new on the Surgical Service and helped to advertise the Trauma Program. In addition, the chief resident had the opportunity to ask questions about setting up a private practice.

Minority Appointment

When Trunkey returned from Texas in 1972, he immediately started work at SFGH. Several months later, when he still had not received a paycheck from the University, he consulted with Dunphy. At that time, the University was requiring a search for members of minority groups as part of every appointment, and Trunkey's appointment had been held up to ensure that minority candidates had a chance to apply for the position. When Dunphy informed him of the reason his appointment was being held up, Trunkey responded: "Tell them I'm gay." Dunphy laughed and processed the application with that announcement. The appointment cleared immediately without further challenge!

A Desk for the "320 Club"

One evening, when Housekeeping was cleaning administrator Charles Monedero's office, his desk was temporarily placed in the hall. When the janitors took a break, the Trauma team, under Brent Eastman's direction, moved it to the "320 Club." There, it served as the chief resident's desk until the residents' quarters were demolished after the new hospital was completed.

M&M on a Falcon

Blaisdell's car was a beaten-up Ford Falcon that he had purchased from UC's chair of Pediatrics for \$300. When the car finally died on the street, the residents went out and took a picture of it with the hood up, and then presented it as a case report at the department's morbidity and mortality (M&M) conference.



Demise of a Falcon

Poor Leo

One Saturday morning while Sheldon was Trauma resident, he received a call from his wife Ruth. He was informed that his family had just been to the Zoo. The kids wanted their Dad to know that they had just seen a lion eat a man. As they were younger than five years old at the time, Sheldon thought this was a healthy dose of childhood imagination. While he was still on the phone, though, he heard sirens and simultaneously received an urgent call to the emergency room. Once there, he found a man in desperate straits, covered with lion fur from head to foot. He was an alcoholic street person who had jumped into the lion pit, falling 20 feet and breaking both ankles. He had crawled over to the four lions dozing in the middle of the den and hit the youngest one, Tommy, in the head with a wine bottle. The year and a half-old lion retaliated, inflicting horrible injuries on the man. A zookeeper emerged with a gun and shot and killed the lion. The *San Francisco Chronicle* the next morning had a picture of the lion with the man's head in his mouth. The lion's feet had dug out the man's femoral vessels and a complicated repair was required to save his leg. There was extensive national publicity regarding the event. Letters came in from all over the country, many from school children, who deplored the fact that Tommy had been killed.

Six Shooter

A small boy ran up to an ER intern and said that a man who was waiting to be seen had a gun. As it turned out, the man had been injured while escaping from San Quentin—he was a murderer who had killed several people. The Trauma resident called the institutional police. They indicated they did not get paid enough to take care of something like this. The resident then called the hospital administrator, who advised him to call the regular police. Just before the police arrived, someone else called attention to the gun—at which point the man brandished the weapon and cocked the hammer. Fortunately, the police arrived at that moment. An officer managed to get close enough to the assailant to grab the gun with his thumb in such a fashion as to prevent the hammer coming down. He wrested the gun from the man and hit him with a crack on the skull—fracturing the skull and ensuring that he was going to be a patient for the next several weeks.

Male or Female?

Valerie was a transvestite who was well known to the nurses in the ER. About once a month, Valerie attempted suicide by ingesting barbiturates but then promptly called for an ambulance. The nurses usually undressed the patients, but when Valerie came in, they would call the junior intern instead. Valerie was gorgeous looking and had fully developed breasts, as well as fully developed male genitalia. The intern usually emerged from the examining room in shock.

Presidential Assassination

In 1975, President Gerald Ford was speaking at the St. Francis Hotel on Union Square when Sara Jane Moore—a 45-year-old bookkeeper who dabbled in revolutionary politics—fired a bullet at him. The red phone in Mission Emergency—which is activated when a President is in town—rang with the information that the President was shot and was being brought to the hospital. Alarm bells rang, the trauma staff were fully mobilized, and the sirens could be heard coming down the freeway. However, they went right on past, taking the President to his plane at SF Airport. The assassin's bullet had missed!

A Case of Chest Pain

The third-year students would get their assignment for physical diagnosis, go examine their patient, and then have their examinations verified by the faculty. Sheldon took a group to see an 18-year-old patient whose complaint was chest pain on the left side. The assigned student valiantly attempted to justify his impression that the patient had angina pectoris. Sheldon made the point that a good approach is always to ask the patient what the patient thinks is wrong. Correspondingly, the patient was asked what he thought caused the pain and when did it begin? He responded that the pain started when his girlfriend had stuck him with a knife. Some angina! Years later, the student involved had become a popular professor of Pathology at the University of North Carolina Medical School. When he was selected to address the students at Commencement, he told them this story.

The Plumber's Apprentice is a "Shoe-in"

When the new hospital was opened in 1976, there were immediate problems—the most notable of these were related to the plumbing system. When the toilets were flushed on the upper floors, the sewage ran out of the toilets on the lower floors. The question was whether the drainage pipes were inadequate or whether some obstruction existed in the main drainage line. If there were an obstruction, where was it? As the engineers were peering over the blueprints trying to figure out the problem, Frank Lewis happened by and listened to the discourse. Frank—never lacking for an opinion on anything—stated unequivocally as he pointed to the plans, “The obstruction has to be right here.” The engineers listened to his argument, opened the pipe in the recommended area, and found a tennis shoe!

Ambulance Resuscitation

The surgical staff repeatedly insisted that ambulances “load and go. Do not try to resuscitate the trauma patient in the field.” The problem had been minimal until the paramedic program was initiated—then delays in transport occurred as the paramedics wished to use their new skills. The staff insisted that no attempt should be made to start an IV line in the field. “If it must be done, do it in the ambulance!” The paramedics maintained that this was difficult, if not impossible. “Nonsense,” said Blaisdell. “I’ll show you.” Whereupon he took an ambulance call, but he found that his attempts to start intravenous lines were completely unsuccessful as the ambulance driver hit every pothole in the road.

Differentiating Red and Blue:

When Richard Crass was working as a junior resident in Mission Emergency Hospital one evening, a patient with a gunshot wound of the abdomen presented in profound shock. The entire Trauma team was upstairs operating and so Blaisdell—who was referred to as “the Blazer” by the residents behind his back—broke scrub to come down and assess the patient. The intern was having trouble doing a brachial cut-down and Blaisdell elected to help him. After placement of the line, the IV bottle rapidly filled with blood. Blaisdell looked up and said, “Richard, you wanted an arterial line, didn’t you?” and Crass responded, “Yes, Sir!”

Weeks later, this complication was presented at the departmental M&M conference. Dr. Larry Way commented how much complications like this upset him. He stated that he could not understand how someone could mistake an artery for a vein, and that he could even tell the difference on his medical school cadaver. Blaisdell stood up and told Way that he did that cut-down and that Way should recall that, in the cadaver, the arteries were injected with red latex and the veins with blue.

Readmission Policy

When working at Mission Emergency Hospital, it was important to discharge all patients from the male ward by 4 AM. This would allow this predominately alcoholic population to move, by “Brownian motion,” far enough away from the entrance to Mission Emergency that they would not be visible when Blaisdell arrived in the morning. If Blaisdell saw patients milling around the entrance to the emergency room with no place to go, he would routinely bring them back in.

The Green Phantom

Every surgical resident at San Francisco General feared Blaisdell's "green pen." The work of this pen was evident in notes appearing in the chart at any hour, day or night, suggesting that a specific patient needed an operation. Woe be it to the resident who did not find this note. Occasionally, the green pen made dotted lines on the abdomen of a patient with abdominal pain, with the comment: "Cut here by (*a certain hour*)."

This was a way that "the Blazer" could ascertain whether proper serial abdominal exams were being done.

CASES

Complicated Cardiac Resuscitation

A Pacific Gas & Electric lineman was electrocuted while on the top of a line pole. Believing him dead, his companion cut his belt and the lineman plummeted thirty feet to the ground, where he let out a moan. He arrived in MEH alive but required repair of a ruptured thoracic aorta.

Schrock Shunt

In 1966, the Trauma attendings were confronted with several untreatable liver injuries in which there had been tears of either the major hepatic veins or the retrohepatic vena cava. Ted Schrock, then a junior surgery resident, was on rotation to pathology at SFGH. He was given the assignment of working out the anatomy of the renal veins and the retrohepatic vena cava. Schrock demonstrated that isolation of this portion of the vena cava was possible, provided that a shunt could be used to bypass the area. At that time, occlusion of the cava in a patient in shock was associated with immediate cardiac arrest due to trapping of blood behind the caval occluding clamp. In 1968, by using the technique worked out by Schrock, SFGH reported the first successful technical repair of right hepatic vein avulsion from the vena cava.

Ex-Vivo Kidney Repair

In 1967, the Trauma Service was confronted with what appeared to be an insurmountable problem. A 24-year-old drug addict had been shot in the abdomen and was found to have suffered a gunshot wound through the hilum of his only kidney. As renal function was present, he was treated expectantly. However, on the seventh day after the injury, he developed massive urinary hemorrhage. Aortography disclosed an arteriovenous fistula involving a segmental renal artery and vein, with a large false aneurysm in the hilum of the kidney. At that time, renal dialysis was limited to certain select groups of patients, and drug addiction was a specific exclusion. The patient was taken to the OR, the kidney was removed, and injuries to the segmental vessels were repaired on the back table. The kidney was replaced in the standard transplant position in the left lower quadrant. The patient regained renal function but died of sepsis and pulmonary failure several weeks later. Subsequent to this, Bob Lim performed two additional ex-vivo kidney repairs for fibromuscular hyperplasia of segmental renal arteries, and the three cases were published in *Archives of Surgery* in 1972. Although this was thought to be the first such publication, it was later found that the Japanese had published such a repair in their literature a year earlier.

The Camilla Cox Library

During the height of the Haight-Ashbury hippie period, a young hippie girl was admitted to SFGH with acute, fulminating, drug-induced pancreatitis. She developed severe respiratory failure and required multiple debridements of her necrotic, infected pancreas. Despite many months of heroic therapy, she ultimately succumbed. This was before intravenous nutrition was introduced. Her mother, who was from the conservative Midwest, spent most of her time at her daughter's bedside and, in appreciation of the care her daughter had received, asked what she could do for the residents. Her \$5,000 donation was used to start the surgical residents' library, which was established in the chief residents' suite of rooms.

Aortic Arch Injury

Shortly after his return from Sweden, Bob Lim was confronted with a patient who had an angiographically proven rupture of aortic arch vessels consisting of the innominate left carotid and left vertebral arteries. He successfully repaired the first two injuries and ligated the third. The patient survived—the first success reported for this injury.

Splenic Injury Infection

In 1979, Lim reviewed comparable liver and splenic injuries and reported a peculiarly high incidence of infection complications in patients following splenectomy, as opposed to corresponding patients with liver injury. This paper was highly disputed when it was presented at the Pacific Coast Surgical Association meeting, but subsequently it was recognized to be correct. SFGH took the lead in conservative treatment, including splenic repair, and tempered the aggressive use of splenectomy for minor injuries, as previously had been the rule.

Drug Abuse Tragedy:

One of Blaisdell's most depressing cases was that of a young, bearded hippie who was admitted with gangrene of his foot from a femoral artery drug injection. He was critically ill and Blaisdell said, "As I looked at him, he seemed familiar and I asked: 'Don't I know you?' I thought he was a patient I had previously treated."

He said, "You are right, Dr. Blaisdell, you do know me. I was a medical student on your service four years ago. After medical school, I was sent to Viet Nam and, while there, I got hooked on drugs. Look what's happened to me since I left the service!"

His foot was amputated and he was given a below-knee prosthesis. It was later learned that he committed suicide a few months later.

Pain in the Back

A patient presented to the triage nurse complaining of pain in his back. He was asked to sit on the bench. The nurse said, "The doctor will see you when he can." Shortly thereafter a woman on the same bench screamed: "There's a knife in that man's back!" That patient was moved to the head of the line!

Bullet Embolism

“During the early 1970s it seemed like bullets were flying everywhere,” and a number of unusual injuries occurred. Among the most challenging of these were cases of bullet embolism. As a result, the rule was established that entrance and exit wounds must be counted and all bullets accounted for. Low-caliber gunshot wounds of the upper abdominal aorta resulted in bullets in the profunda femoral and popliteal arteries. Caval gunshot wounds led to bullets in the heart or in the pulmonary arteries

Hepatic Artery Ligation

In 1970, a police officer suffered a through-and-through, right-to-left gunshot wound of his liver. Application of a portal triad clamp resulted in control of major arterial hemorrhage. Selective occlusion of the right and left hepatic arteries established that bleeding was coming primarily from the right hepatic artery. Ligation of that vessel was associated with control of the bleeding and an uneventful recovery. During that period of time, hepatic artery ligation was overused nationally, but in selected instances, such as this case, it worked well.

Mangled Liver

Norman Christensen, as a “visiting professor,” remembered clearly the first trauma case of his first week at SFGH. “As I changed into greens in the dressing room, George Husband—later to become my partner—was changing out of his. George announced that his chief residency was over and that Ted Schrock was the new chief resident. In the OR, Ted and I found that the problem in this case was a badly mangled liver. After lots of blood and unsuccessful attempts to stop the bleeding, Schrock suggested that we pack the liver. We did and re-operated the next day to find a dry field. The patient recovered.”

Reluctant Amputee

A young man with a swollen leg was admitted to the hospital. He had been hit on the thigh with a baseball line drive several days before. There was obviously a huge hematoma of the thigh, in addition to extensive redness and swelling. The patient had a temperature of 105 degrees and was extremely toxic. Biopsy of the thigh revealed foul-smelling dead muscle. The patient was asked to sign permission for a high above-knee amputation, but he adamantly refused. He said, “I would rather die than lose my leg!” Despite disagreement among the faculty, Blaisdell made the decision to proceed with surgery. The patient’s parents in Boston were contacted, and they gave permission for the operation. The gas gangrene was treated with high amputation and radical debridement. After a prolonged postoperative course, the patient survived and expressed his gratitude for the decision to countermand his initial request.

Living Dead

When Bob Allen was a member of the junior staff, he walked into the ER to find the residents practicing intubation on an apparently dead patient. Although no pulse was palpable, Allen thought he saw the patient take a slow breath. He called senior staff to reinforce his opinion. The patient was alive, but with a temperature of 70 degrees! Warming resulted in a full cardiovascular response, but unfortunately the patient did not awake from coma.

Bad Caval Injury

A memorable case, when Sheldon was an attending, was the case of a young man who presented in shock after a self-inflicted gunshot wound of the lower chest. During surgery, an urgent midline abdominal incision was extended into a sternotomy with a Lebschke knife. The injury was a 270-degree transection of the supra diaphragmatic vena cava. It was managed by using the Schrock shunt, which permitted the cava to be sewn back together in a dry field. The urgent sternotomy had gone off-center into the right chest and disclosed significant bleeding coming from the right lower lobe of the lung. Accordingly, a right lower lobectomy was performed.

Sheldon had to leave for a program in San Diego and called Blaisdell to the OR, asking him to assume the postoperative care. Blaisdell assumed that the patient would require assisted ventilation in the unstable post-injury setting. To his surprise, a new anesthesia resident rotating in the ICU had already extubated the patient immediately postoperatively. He looked up at the shocked Blaisdell, and said, “April Fool.” It happened to be the first of April. The patient made an uneventful recovery.

In 1973-1974, a rash of random killings plagued the City. The Zebra killers and other anti-establishment groups like the Symbionese Liberation Army exemplified the hostile environment at the time. Of 23 victims, 12 reached SFGH alive, and eight of them survived. One of these was Art Agnos, then a social worker. While Agnos was standing in the street discussing the potential for a new clinic on Potrero Hill, he was shot in the back. His injuries involved the lung, kidney, and spleen. Trunkey treated him successfully. Agnos later favored SFGH as a member of the Board of Supervisors and then as Mayor of San Francisco.

Zebra Incidents

Sniping incidents were a common tactic of the Zebra killers. One maneuver was to set off a fire alarm and then shoot the fireman riding the trailing ladder truck. One morning, a policeman was brought into SFGH with a non-critical injury. He said that he had been shot by a sniper. Anticipating more victims, the Trauma team assembled in the ER. Soon thereafter, the wail of an emergency siren was heard. The paramedics brought in a victim with a wound from a high-velocity bullet between his eyes. Then a SWAT team member popped into the trauma bay and said, “That’s the sniper—he peeked out of a window, and we took him out.”

Golden Gate Bridge Jumpers

Survivals after jumps from the Golden Gate Bridge are rare, but they do occur. One survivor who was admitted with multiple fractures was quizzed about how he managed to live. He stated, “It was a long way down and—on the way—I changed my mind about suicide, so I steered myself into the moat surrounding the tower. Trouble was, there was a lot of lumber in there.”

The Laughing Policeman

In 1973, when *The Laughing Policeman* was being filmed at SFGH, Doug Dorner and Don Trunkey treated a patient with a major abdominal gunshot wound who had an associated vascular injury. They operated nearly all

day, finishing around 7 PM. At 2 AM, Trunkey received a call from Dorner saying that the patient was bleeding and should go back to surgery.

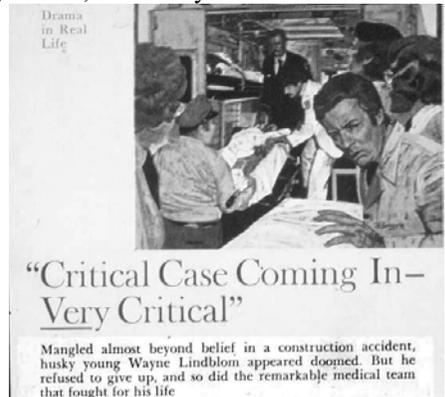
Trunkey said, "Go ahead and get started." There was a long pause at the other end, after which Dorner asked if Don would come in and do it. Trunkey and the intern took care of the operation, and then learned that Doug was downstairs participating in the filming of the movie. Doug had a bit part, for which he received \$400.

The Unloaded Gun

A science reporter from the *San Francisco Chronicle* newspaper was given permission to follow the Trauma Service one Saturday evening. A known psychiatric patient presented in cardiac arrest from a self-inflicted gunshot wound of the sternum. He was resuscitated in the ER with thoracotomy and was taken to the OR, where his left ventricular injury was repaired. The patient did well, and the reporter returned for a follow-up interview for his featured article. The patient, recognizing his celebrity status, had fully recovered from his depression. He told the reporter, "I was just cleaning my gun when it went off." This explanation was accepted at face value.

A Catastrophic Injury

Wayne Lindblom, a construction worker, was essentially cut in half by a backhoe. Sheldon and Brent Eastman controlled an injured aorta, removed the left kidney, did a hemipancreatectomy, and stabilized a spinal fracture. Tom Hunt looked in on the case and offered the opinion that the patient would not make it off the table, and he went to notify the family. However, the patient did survive the operation. Blaisdell saw the patient in the ICU and also spoke to the family. He let them know that the occurrence of both renal and respiratory failure made survival unlikely. Julie, the patient's wife, was a naïve and lovely young woman with great faith. Having been given this information, she said that she did not want anyone other than Sheldon or Eastman to give her follow-up information. The patient survived a year long ordeal and the case was featured in an article in the *Reader's Digest*.



A Case of Cardiac Tamponade

Trunkey remembered his first SFGH rotation as a fourth-year resident. "We were making rounds at about 9 AM, when I got a stat call to go to the cardiac cath unit. The chief of Cardiology had been helping one of the cardiac fellows do a heart catheterization for a 49-year-old woman who was suffering from mitral valve disease. When they inserted the catheter, it penetrated the right ventricle. When I arrived, the cardiologists were standing at the console, repeatedly watching the playback of dye squirting into the pericardium, which was causing pericardial tamponade. Neither one of them was paying any attention to the patient. She was still conscious, but the nurse was very concerned that her blood pressure had fallen to 50 systolic. I quickly took a

knife off the tray and opened her left chest, at which time she screamed, and the chief cardiologist turned around to see what was the matter. About this time, one of the anesthesiologists showed up and I said, ‘Intubate her and give her something for pain!’ Blaisdell arrived at about this time—after assessing the situation, he said, ‘Here, I’ll help you,’ and we took the woman to the OR and closed the small hole in the right ventricle. At the end of the case, he said ‘Next time, you might wait until the patient is comatose and no longer having any pain.’”

Bringing the Dead Back to Life

Trunkey initiated a program to resuscitate patients who were not responding to CPR. This program involved putting patients on cardiopulmonary support by using femoral artery and vein catheterization. Fourteen patients were placed on the protocol, but resuscitation attempts failed for all fourteen and they developed massive uncontrollable bleeding as the terminal event. “At that point”, Trunkey said, “Blaisdell called me into his office and admonished me for not being able to identify a cadaver when I saw one.”

Malingers

There were many examples of patients presenting to Mission Emergency with feigned illness. Mrs. Fogler, the evening nursing supervisor, was extremely adept at recognizing them and warning the residents. The most common presentation that came to the attention of the Surgical Service was abdominal pain, feigned by drug addicts desperate for a “shot.” The most adept was a patient who had mastered the art of simulating renal colic. Somehow he managed to introduce blood into his urine specimen. Once he came under suspicion, he was kept under close observation. Still, his urine contained blood. At last, an astute nurse noted suspicious motions while he was urinating and pulled back the covers to reveal that he had been pricking his finger with a tiny needle taped to his thumb to introduce blood into his specimen.

An Archery Mishap

In 1975, a Native American was brought into Mission Emergency with a through-and-through arrow in his left buttock. He and some of his colleagues had been doing a little drinking while practicing archery in Golden Gate Park.

Trauma Recidivism

A young man was admitted shortly after he ingested lye in a suicide attempt. His whole esophagus dissolved, and he ultimately required esophageal resection from the cricoid level to, and including, a portion of his stomach. Six months later, Art Thomas replaced his entire esophagus with the left colon. The proximal anastomosis, by necessity, was to the lateral pharynx. Months later, just as he was ready to be discharged from the hospital, he jumped out of a fourth-floor hallway window. His fall was broken by a metal awning. His extremity fractures required another six months of hospitalization, at which point he was transferred to the Psych Ward. One day, he escaped from the ward, climbed the fire escape to the roof and jumped off. It had rained the night before, and he embedded himself in the soft lawn, once again escaping with a few more fractures. Ultimately, after several years of hospitalization, he was

discharged. It was later learned that he had been murdered on a street in the City.

Medical Student Self-Triage

One warm spring night, a senior medical student was walking home in the back of the campus behind Moffitt Hospital, when he was assaulted and stabbed in the chest. He staggered home and had his wife drive him to Mission Emergency, where his hemopneumothorax was treated with a chest tube. The UCSF Chancellor, Philip Lee, called Blaisdell at home to find out why the student was not taken to Moffitt Hospital. Blaisdell informed Lee that the medical students knew exactly where to get the best care. The medical student did well at SFGH, and later continued his studies at UCSF as an orthopedic resident.

The Golden Dragon Incident

The massacre at the Golden Dragon Restaurant was truly a test of the SFGH team's capability in handling a disaster situation. On September 4, 1977, Chinatown gang activities resulted in a shootout that could be likened only to the St. Valentine's Day massacre in Chicago in 1929. Several gunmen entered the restaurant with automatic weapons and shot up the crowded place, attempting to kill opposing gang members. About a dozen multiply injured patients were brought to Mission Emergency at the same time. The Trauma team had been alerted, and teams of staff were set up to receive them. Bob Lim was responsible for triage and resuscitation. The most seriously wounded were immediately transported to the OR. All in all, five deaths resulted.

Later, the Chinese community erroneously accused the SFGH faculty of discrimination, saying that they took care of white victims first and let Chinese patients die. One of the Chinese patients was an elderly waiter who had massive head and neck wounds and was quadriplegic. Blaisdell and Lim went to face a community tribunal to explain their actions. "After listening to their grievances, we assured them that all patients were promptly and appropriately cared for." Lim informed the group that he and his chief resident—John Boey, who was also Asian—were the ones who triaged the patients. The protest immediately died when it was disclosed that members of their same ethnic group had made the triage decisions. The ultimate result of the complaint was to get our City fathers to provide more resources for SFGH's Trauma Program.

The Mayor Visits the ICU

On one occasion, a police officer who had multiple gunshot wounds was treated in the ICU, together with his assailants. Mayor Alioto was upset and made a politically motivated, unannounced visit to the ICU. Needless to say, it was an eye-opener for him, and he became "green behind the gills"—there was blood and gore all over the place! He made a quick exit before the hospital administrator could get there. Possibly he was more sympathetic to SFGH's cause after that.

The Buddy System

Ward 45 was designated the Municipal Ward for police and firefighters injured in the line of duty. Whenever they were hurt, their buddy system dictated that they promptly take care of their own. They were transported by ambulance

to Mission Emergency under police escort. The violence of the 1960s and 1970s generated many gunshot injuries between police and the “bad guys.” Often a downed policeman would be brought in, followed closely by another ambulance bringing in the bad guy. All the treatment rooms in the ER were in close proximity—which did not go well with either party. The police wanted to know why we were taking care of the villain first, even if the bad guy’s injury was more serious than that of the officer.

STAFF MEMBERS’ MEMORIES OF THE BLAISDELL YEARS

Robert C. Lim, Jr. recalls...

I have known Bill Blaisdell since 1961, when I started my residency with him at the VA. When I was appointed to the SFGH faculty and he said: “Call me Bill,” I had great difficulty not calling him Dr. Blaisdell. In fact, when I heard the residents call him “the Blazer” behind his back—probably with great affection, or maybe fear—I shuddered because I was always brought up to respect my elders. However, no matter what he is called, he commands the respect of his residents and students.

During this period of time, there was a great deal of hostility against the police. The “hippie movement,” with its anti-war activism and the rampant drug abuse, made the work of law enforcement very difficult. One of the most tragic incidents was when someone threw a bomb into the Park Police Station one evening. The desk sergeant took the blast directly and was immediately brought to Mission Emergency. We intubated him, placed intravenous lines, and continued resuscitation on our way to the operating room (OR). A reporter took our picture as we rounded the corner to the OR elevator. Captured in the picture was our trauma nurse, Susan Miller, who later went to medical school at Loyola University. She was the first woman to complete surgical training at the Massachusetts General Hospital (MGH). She then did a trauma fellowship at SFGH. She is now Susan M. Briggs, professor of Surgery at the MGH, and is the trauma surgeon in charge of the premier International Medico-Surgical Response Team.



Depiction SF Police circa 1972

The Riot Squad of the Police Department in the 1970s was called The Second Platoon. When the “Brown Panthers”—a political group with a revolutionary agenda—threatened to attack SFGH, the Second Platoon marched in linear formation, much like Army infantry going into battle in a frontal confrontation. Although the police carried guns, their principal weapon for crowd control was a large, long, curved, hickory stick, that—when carried horizontally—could be used as sort of a fence to push back the crowd. When they were attacked, the stick could be used as a club. Their helmets provided

partial protection against rocks and bricks, but they suffered a number of serious injuries, and several officers were killed.

One of the SFGH medical housestaff went so far as to paint his motorcycle helmet white with a red cross on it, in order to go through police lines and be a part of the opposition. He was very outspoken and anti-establishment, but subsequently he continued his career as staff on the Medical Service at SFGH.

From the Mission Emergency staff's perspective, San Francisco in the 1960s and 1970s resembled Iraq in 2007. The police force formed the Second Platoon to protect the public and public institutions from rioters. Not only were they involved in the Haight-Ashbury District, where most of the riots were centered, but they also played an active role wherever the protests against the Viet Nam War became violent, such as at San Francisco State University. We at SFGH became very well acquainted with the members of the Second Platoon because the police, as well as the rioters, were frequently badly injured. The anti-establishment referred to the police as "Pigs," and the Second Platoon adopted the pig as their symbol.

I accompanied Blaisdell to the awards banquet of the Second Platoon the year he was honored, along with Samuel I. Hayakawa—President of San Francisco State University. Blaisdell was presented with a police baton and a bright yellow T-shirt that featured a caricature of a pig drawn as a policeman with a nightstick. The meeting had the atmosphere of a fraternity party. Bill's contribution was obvious. Sam Hayakawa was famous because, as a professor of English at San Francisco State, he had climbed up on top of a sound truck that was instigating a riot by shouting blasphemies against the Viet Nam War. He pulled the wires from the speaker on top of the truck. The incident was featured on the cover of *Life* magazine. This single act propelled him to the Presidency of San Francisco State and then to the United States Senate, where he served from 1977-1983.

Donald Trunkey recalls...

There are lots of anecdotes about Bill. One of my most memorable times was my very first rotation at San Francisco General, which began in September of 1966. Three weeks after I began, there were the Hunters Point riots. I went down to the emergency room because we were starting to get incoming gunshot and stab wound victims. Bill was standing in the middle of the old Mission Emergency, and he told me to go outside and do triage as the ambulances arrived. I walked outside, and the ambulance bay was completely empty. While I was standing there, I heard the sound of bullets hitting bricks just above me. I looked up on the hill, and there was a guy standing there, shooting a .22 rifle—at me, I presumed. I went back inside and Bill asked me what I was doing there. I explained to him that I didn't want to get shot at. He didn't volunteer to go outside either!

I also remember very vividly getting my ass chewed by Marilyn Blaisdell—Bill's wife. In anticipation of one of his Christmas parties, Bill asked me to assist him in making some beer. After proceeding to make a malt beer, Bill insisted on putting it in soda bottles. I tried to explain to him that, if we had residual sugar, which would make the beer nascent, it might cause too much pressure on the soda bottles, and that instead we should put it in champagne bottles. Bill insisted on using soda bottles. A couple of weeks later, the beer



Surgical Staff Clean Up: Lewis, Trunkey, Steele

started breaking bottles in Marilyn's basement. She informed me in no uncertain terms that I was never to make beer in her house again.

Although it did not directly affect Bill, I remember that during one of the nursing strikes we sent a number of patients over to Franklin Hospital, and even some to the University. We were left with 109 patients in the hospital that we could not transfer. Bill said that we were going to keep the hospital open no matter what. The problem then became how to feed these patients and keep everything clean, as workers—other than the nurses—refused to cross the picket lines. Bill assigned Muriel Steele and me to the kitchen. We went down just before lunch to fix macaroni and cheese and sandwiches. Some of the housestaff delivered the food to the various wards. Although some of the patients were supposed to have special diets, on that day they had no choice about what they got.

Afterwards, the housestaff brought down the dishes, and Muriel and I proceeded to wash them. We couldn't get the dishwasher to work correctly and the thing made a lot of noise. What we didn't know was that there was no rinse cycle. That evening we used the same dishes and apparently there was a thin film of soap on all of them. Every single patient who ate dinner that evening got diarrhea! I thought some of the housestaff were going to lynch us because they were the ones who had to clean up the mess. Muriel and I were both captured on film by CBS news, cleaning the kitchen. I had a mop and Muriel was standing at the dishwasher—Frank Lewis was drawing coffee.

My experience initiating the Burn Unit was described earlier. After we christened the Burn Center—that same afternoon—Monedero, the hospital administrator, stormed into Blaisdell's office demanding that he fire me. Blaisdell explained that I was getting no money from the County—that I was an employee of the University and he would have to take it up with the Dean. Monedero never spoke to me again. Bill thought it was a perfect solution. He was particularly happy to vex Monedero. When he was voted chief of staff, Bill asked the faculty what they wanted him to do.

“Get rid of Monedero” was the unanimous response. I learned that Bill walked directly from that meeting to Monedero’s office and the following occurred.

“I have just been elected chief of staff,” Bill said.

“Congratulations,” said Monedero.

“Charles, they elected me with the charge that I was to get rid of you.”

“Do you want me to resign, Bill?”

“Yes.”

“Then I will.”

Monedero had clearly been in over his head and, to his credit, he recognized it.

I also remember very vividly the day that Senator Alan Cranston dedicated the Trauma Center in the pathology auditorium. I was on trauma call and got paged to go to the emergency room. A 16-year-old male at a high school in the Richmond District had been stabbed. The ambulance had responded and found the student in shock. The paramedics loaded him into the ambulance, but it wouldn’t start because the battery was dead. They called for a back-up ambulance, which took approximately 25-30 minutes to arrive, and then he was brought to San Francisco General. By the time he arrived, he had lost his vital signs. He had a single stab wound in the left anterior chest. We immediately did a thoracotomy, and I was standing helping the residents when Bill walked in with Dianne Feinstein. Bill apparently was showing her around the emergency room, and she asked what had happened. There was blood all over the floor and we were not winning. I think he had been dead too long. I was so damned angry that I turned to her and I said, “It’s because of you and the supervisors that this kid is dead. When the ambulance responded, the battery went dead; they don’t get good maintenance, and they’re old and decrepit. This kid would be alive today if he had had proper transport.” She turned pale and left the emergency room.

Blaisdell, in his own inimitable way, looked at me and said, “You’re in big trouble now, Trunkey.”

I said, “Well, what should I do? Should I apologize to her?”

He said, “You created the problem—you get out of it.”

A little later, Sheldon was in the ER when Francis Curry, the director of Public Health, appeared. He had been at the Trauma Center dedication and had been rebuked by Feinstein after her encounter with me. Curry appeared perplexed, and Sheldon asked if there was anything he could do for him. Curry snapped, “That Dr. ‘Turkey’”—his term—“got me into trouble.”

I was summoned the next day to go to the Board of Supervisor’s meeting, where Feinstein had me recount the episode. They immediately voted to buy eight new ambulances. I don’t think even Blaisdell thought it would turn out quite that way.

I remember the 21-year-old male who was shot in a liquor store holdup. He was the son of the owner and sustained two .351 magnum bullet wounds through and through, in transverse fashion, across his abdomen. Dunphy was my “visiting



professor” and was unpacking his belongings in the “320 Club” when I called him to come to the OR emergently. The patient’s injuries were extensive and included the cava, aorta, and right renal artery, and he had lost a lot of blood. Dunphy told Blaisdell the next morning that I was not as good as he thought I was, and that he was not as good as I thought he was. Blaisdell asked him when we were going to take the young man back to surgery.

Dunphy said, “There is no reason to take him back.”

Blaisdell said, “Okay, then I will do it.” Bill and I then took the patient back to the operating room and, when we opened him up, the spleen fell out.

Dunphy, who was watching, said: “Now I know why you guys do these second look operations” and walked out of the operating room.

Frank Lewis recalls...

I remember the green ink on the charts—the need to make pre-rounds each morning looking for green ink in the progress notes. Sometimes there would be green ink diagrams on the abdomen of patients in the Mission.

I remember the sudden appearance of Bill, looking over my shoulder in the OR at three in the morning.

From the Mission nurses, I learned about a practice they used to chuckle about. They moved patients out of the male ward across the hallway into vacant rooms on the other side when Bill was about to make Mission rounds if they didn't want him to see a particular patient.

I remember an elderly woman with some abdominal pain whom I'd been watching for several hours, unable to figure out what was wrong with her. I did not think her abdomen was acute enough to need exploration. Bill made rounds, berated me for allowing her to sit around with dead bowel, and insisted we take her promptly to the OR—which we did. At exploration, we couldn't find anything significant. Afterward, Bill reassured the relatives it was a good thing that we operated because we proved that everything was OK. This was an example of how Bill was never reluctant to talk to relatives and assume responsibility, particularly when things did not go well.

One Friday afternoon, the residents and nurses had gathered in the “320 Club” because one of their patients, a pornography producer, had given them one of his choice movies. They were all set up to show the movie in the living room, but Bill had dropped by and was having a good time talking to everyone and showed no inclination to leave. Finally, someone closed the door to the next room and started the movie. Everyone gradually disappeared until the only people left in the anteroom were Bill and I. He thought he must have been missing something, so he proceeded to open one of the living room doors. He looked in just in the midst of a particularly graphic scene and suddenly got the picture. To his credit, he just quietly closed the door and left.

I became interested in the membrane lung because of my engineering background. In 1970, the membrane lung was under development in many centers. I spent my research year during my residency in the Donner Laboratory at Berkeley, working on membrane physiology. As I was completing my residency, there was a national trial developing under the aegis of Bob Bartlett at Michigan, using extracorporeal membrane oxygenation (ECMO) to treat acute respiratory distress syndrome (ARDS). Bill asked me if I was interested in staying on staff and applying for this NIH-supported grant. My grant application was successful and provided money for my initial salary.

When we were doing the ECMO trial for ARDS in the mid 1970s, we saw an 8-year-old boy who had end-stage pulmonary failure and had been on ECMO for about a week. His condition was worsening. He kept blowing out his lungs, and he required multiple chest tubes to treat pneumothoraces. Clearly he was about to die. The only possible hope for him was a lung transplant, but at this time lung transplantation was not an established operation. It had been done experimentally by only a few people, one of whom was Frank Veith in New York City.

Bill decided that we had to attempt this last-ditch maneuver, so after talking to the family and getting their consent, we launched into a multi-pronged effort. First, we had to scour the Bay Area for a donor. We were able to locate a young woman in Vallejo who was brain dead. We had to get a City ambulance and a team to go there, get permission from her family, and bring her back to SFGH.

Bill, meanwhile, had contacted Frank Veith and had him flying out to San Francisco. All parties came together about 10 PM that night. The major problem we faced initially was that the patient could not survive, even for a minute, off ECMO. Somehow we had to get him moved to the OR from the ICU. After scrambling around with the hospital engineers, we came up with a combination of extension cords totaling about 300 feet. We plugged the cords into a socket midway between the Ward 12 ICU beds and the large west corner operating room. The pump was switched over to the extension cord and we began a slow procession from the ICU to the OR, pushing the bed and pump together until we could get the boy onto the OR table.

Bill operated in one room and Art Thomas in the other, with Veith assisting back and forth in both. Fortunately, everything worked perfectly and the operation—a unilateral lung transplantation—was completed without incident. The boy improved transiently, but five to six days later, he developed a bronchial leak, which was followed by sepsis. The donor lung began to swell, and he became hard to ventilate. We removed the chest sutures to allow the lung to expand in a desperate attempt to save him, but ultimately nothing worked, and he died in spite of everything. Overall, it was one of the most heroic attempts to save someone I ever saw.

The Friday afternoon parties were a tradition, and no one gave much thought to the City/County rules prohibiting alcohol on the hospital premises. It was the interns' job to get the beer up to the "320 Club" in the time for the party. Normally they understood this was to be done by one of the back stairways. On one particular Friday, a naïve and newly recruited intern, instead, walked directly in the front door of the administration building with a case of beer on his shoulder and proceeded up the main stairs. The nurses helping him were Donna D'Acuti and Phyllis Harding.

Somehow, one of the hospital police either observed the whole thing or was called, and he proceeded to arrest the three of them. Bill was called, but this apparently was not the first such incident and the resolution took awhile. It was not clear initially what the appropriate punishment would be. In the course of the whole affair, it was decided that a general movement to raise bail money would be needed, and someone went out and printed up a thousand or so large lapel pins with the message, "Free the Mission iii." As I recall, these sold for a dollar each, and they are now collector's items. The whole thing went on for two or

three weeks and created a great show for everyone. Ultimately, the only thing sacrificed was the beer.

Jack McAninch recalls...

I vividly recall my very first meeting with Bill Blaisdell in 1977. I was a young urologist being recruited to become the chief of Urology at San Francisco General Hospital. There had not been an active on-site Urology chief at San Francisco General Hospital, even though there were three residents rotating to the facility at the time. Dr. Blaisdell set a rather stern tone—his usual demeanor in many circumstances, especially for young faculty. He made me aware that there had never been an on-site clinical service chief in the Department of Urology at San Francisco General Hospital and wanted to know exactly what my plans were and how I expected to run the service.

I had come from a military residency and background and I was clearly able to comprehend that Dr. Blaisdell was the general in charge. This did not intimidate me, as it was part of the usual experiences in my background. I explained to Dr. Blaisdell that one of my major interests was urological trauma and that I wished to be a very active member of the trauma team. He explained that his faculty were very experienced in dealing with urologic trauma, and it was not likely that I would be needed as a member of the team. However, he did acknowledge that, if I would be willing to attend all urologic trauma injuries, I would be allowed to participate.

I quickly agreed to attend on all trauma, night or day, that involved the urinary or genital system. He and I then struck an agreement: On one hand, if I did not attend when called, then I would not be allowed to participate. On the other hand, if I was always available and was not called by the Trauma Service on urological injuries, I was to so notify him. So, early on in my experience I was in Blaisdell's office on several occasions complaining about Trunkey, Lewis, Sheldon, or Lim's not fulfilling the agreement. Immediately, Blaisdell made his team aware of my availability and his wishes that I participate to the full extent. After a few months, I was accepted by the surgical faculty and became close friends with all of them.

Blaisdell was unwavering in his support of me and continued that support throughout the time that he was at San Francisco General Hospital. He quickly included me in all of the faculty meetings, which were held every Monday morning, and he expected me to give a brief report and bring up any issues that might exist. This opportunity allowed me to discuss and emphasize my interest in urological trauma, which proved to be a great benefit in establishing myself as a urological trauma person with the group.

Over the next two to three years, I was included in all the social events of the Department of Surgery and was looked upon as a general surgeon who did urological work. This attitude still continues today. Blaisdell was the principal person responsible for developing the initial relationship with Urology and for allowing me to participate heavily in the Trauma Service during his time. His help and guidance provided me with wonderful research opportunities. He was always available to give his quick and candid opinions of research projects, but, more importantly, he was thoughtful and supportive of all my efforts. He never asked a person to perform any type of research or clinical activity that he himself was not willing to perform. He was a unique and wonderful teacher and

a great inspiration to me as a young faculty member beginning an academic career.

It should be added that Jack was the single parent for four young boys, but this never seemed to handicap him in any way in his provision of outstanding care of SFGH urological patients

Brent Eastman recalls...

When a resident at SFGH, I was making rounds with Dr. Blaisdell and the team on Christmas Eve, 1971. I had just left the bedside of a patient who was status post thoracotomy for a gunshot wound (GSW) of the chest, when the patient asked me to come back to the bedside. He requested that the chest tube be removed. I said “no,” as Blaisdell had stated that we needed to verify there was no air leak before clamping and then removing it.

The patient then explained to me that he had to get out of the hospital that night—Christmas Eve—so he could meet a friend who worked at one of the large department stores. His friend was going to “make a bicycle available” out the back door. The patient explained that his 10-year-old son wanted a bicycle for Christmas more than anything else in the world, and this was the only possible way that he could get him one. I made the decision, without consulting Blaisdell, to clamp the chest tube and give the patient a few hours “temporary leave of absence.” He left with the tube clamped and safely returned later that night, mission accomplished—sort of the “Spirit of Christmas!” On rounds several days later, Dr. Blaisdell opined that we could now safely clamp the chest tube. I had thought perhaps I should report this incident at the next Saturday Death & Complications (D&C) Conference, but I wasn’t sure how to classify the incident.

As chief resident in 1972, I had worked up a vascular patient at SFGH who had an abdominal aortic aneurysm—a great elective case! The day of surgery arrived, when I was to repair the aneurysm. Bobby Lim was my consultant. He advised me to make very early rounds in the Mission before Dr. Blaisdell’s notorious pre-dawn rounds, so that we could do the case knowing we had no emergencies pending. I was just beginning the retroperitoneal dissection when Blaisdell came into the operating room and asked me about the woman in Bed 3 in the female ward in Mission Emergency Hospital. I was so pleased that I had made pre-Blaisdell 5 AM rounds, had examined her, and was able to report to him that she was being admitted to the Gynecology Service with the diagnosis pelvic inflammatory disease (PID). He informed me that he had also examined her and thought she had appendicitis. This was chilling because Blaisdell was rarely if ever wrong about a clinical diagnosis.

He gave me the choice of scrubbing out of the aneurysm case and operating on her or he would operate on her himself. I was doomed if she had appendicitis and I didn’t operate on her, but it was my first aneurysm. What to do?

Bobby Lim quietly asked me if I was pretty sure about my diagnosis of PID, and if I was, he suggested that I proceed with doing the aneurysm. I was, and Blaisdell operated on the young woman. A while later he came back into the operating room, where we were well underway with the aneurysm repair. With great trepidation, I asked what he had found. He replied, “PID,” but she could have had appendicitis, and he hoped I had learned a lesson. I knew I had—I just

wasn't sure what. However, one thing I did learn in those years at the SFGH: Dr. Blaisdell is the most brilliant diagnostician of anyone I have known in my medical career. Fortunately for me, this case of PID was a rare exception.

Those days as a resident at the SFGH with Blaisdell and his staff remain perhaps the most wonderful experience of my surgical career. It was Blaisdell who first taught me that the most fundamental principle of patient care is: "Always put the patient first"—and, as in this case, I try to do just that.

Among Eastman's achievements are being named clinical professor at UC San Diego and chief of Trauma at Scripps Hospital System, San Diego, as well as chair of the Committee on Trauma of the American College of Surgeons and Regent of the American College of Surgeons.

Thomas Russell recalls...

My most vivid memory was an event that happened on a Saturday night in May 1975. I was chief resident on the Trauma Service, and it was a very active night with all sorts of gunshot wounds and stab wounds. Our team was working in several rooms and was successful in getting through a very difficult and tiring night. Clearly, we had been working well beyond the 80-hour work week. The patients were all in various states of recovery, until one of the ten or fifteen patients that we had operated on that Saturday night had some mild abdominal pain. A flat plate xray of the abdomen was obtained by the intern that showed not only a retained clamp, but without a doubt the largest clamp that could have possibly been on the Mayo stand the night of surgery! How it was left in the abdomen was beyond me! I immediately confiscated the xray and told the team that I would take care of it.

With great trepidation and forethought, I went into Dr. Blaisdell's office thinking that this was the end of my experience as a resident. I explained to him about the operation and then without mentioning the clamp, told him that the patient was doing quite well. I then showed him the xray thinking that this was the end. I held on to the table expecting the very worst news.

After he looked at the film Blaisdell started smiling and laughing, which baffled me a great deal. I was expecting a verbal tirade. The only words out of his mouth were, "I guess you know what to do next." That clamp was removed immediately. I learned that, when Blaisdell has confidence in you, even a situation like that could have a good outcome.

My other long-lasting memory is: after finishing residency, I went into private practice and worked frequently at the Pacific Medical Center, the site of the old Stanford Hospital. Norman Thompson—Muriel Steele's husband, who was a severe pulmonary cripple—was a patient there. He had undergone surgery for diverticulitis done by one of my partners and was not doing well. Muriel had asked Bill to see her husband. Bill, unbeknownst to all of us, made rounds that night and did a rectal exam on Norm—bear in mind that this was before the days of the CT scan. I was covering for my partner, and I received an urgent call from Dr. Blaisdell via the exchange. He had just completed a rectal exam and was convinced that Norm had a pelvic abscess. He felt that we should operate immediately and drain the abscess. I thought to myself that I had gone through this long residency, which lasted more than ten years, and never had such an interaction with Dr. Blaisdell. I immediately called my partner, who refused to re-operate on the patient. Norm went on to recover without drainage of the

infection. These were wonderful years. The last story points out that Dr. Blaisdell never goes away—we will never miss him because he is omnipresent.

Russell has been chief of Surgery at Presbyterian Hospital in San Francisco, president of the Pacific Coast Surgical Association, and is now executive director of the American College of Surgeons.

Norman Christensen recalls...

Shortly after Blaisdell became chief, he started the “visiting professor” program, in which a former chief resident would come to SFGH, live in the chief resident’s quarters and attend on the Trauma Service for a week. I am not sure how long the program lasted after Blaisdell left, but after I had a taste of it, I thought it was the best method for continuing education that I had ever seen! I determined to continue it, if possible, and prevailed on Bill to let me return year after year for at least two weeks. Later, I did the same under Trunkey and Lewis.

One year, I spent two months at SFGH. These periods of acting attending almost always occurred during the summer, when many of the faculty were taking vacation. If Blaisdell was home, there were tennis games on Saturday after rounds in the courts behind his house, with residents and faculty like myself. When the weather was warm, a beer after the games was part of the day.

The dynamism of the Surgical Service at that time was almost palpable. The staff were young and vibrant, excited by trauma care and bent on making real advances in the understanding and management of injury. Over the years, I was exposed to outstanding faculty members who were making names for themselves in American Surgery. I also met a seemingly endless stream of talented surgical residents who would become influential in their field in time. For years it has been a great pleasure to see these former residents at surgical meetings.

My surgical life was broadened immeasurably by continuing to visit SFGH as an attending on a yearly basis. I was able to write a few clinical papers with residents, and my experience at SFGH led me into the Pacific Coast Surgical Association and the Western Surgical Society, and gave me other career opportunities.

Although Christensen was primarily in private surgical practice in Eureka, California, his contributions to Surgery were unique. He was a clinical professor of Surgery at both Stanford and UCSF. He was also a Governor of the American College of Surgeons and President of the Pacific Coast Surgical Association, the Northern California Chapter of the American College of Surgeons, the Northwest Medical Association, and the Stanford Alumni Association.

George Sheldon recalls...

The residents revered Bill Blaisdell, but they all were leery of his unannounced appearance in the OR and on the wards. As one of the residents put it, “you could get “green inked.”

The Johns Hopkins approach of closed-chest massage for cardiac arrest had been adopted for all resuscitations. This “code blue practice” required the surgery resident to appear at resuscitation and do chest compression. This was

usually a futile and unpleasant exercise. In 1968, when I was a senior resident, I was called to Mission Emergency one night—there was a man there who had been robbed and shot in the chest. Finding that the patient had cardiac arrest, I did a left thoracotomy and found a wound to the right ventricle and the right pulmonary artery. I decompressed the cardiac tamponade and repaired the injuries. The patient survived! Blaisdell reviewed the situation and concurred with my conclusions about the futility of closed resuscitation for hypovolemic patients. Open-chest resuscitation was adopted as the standard practice for trauma resuscitation at SFGH, and this subsequently became standard practice everywhere.

Following this encouragement, I was fortunate to do five successful open-chest heart resuscitations during that rotation. One notable one occurred at noon on a Saturday when I was on call. Blaisdell and I were having coffee in the cafeteria when I was called to Mission Emergency. Before I went, I asked Blaisdell if he would stay until I checked the case out. The patient was a drug addict who had a self-inflicted chest wound and seemed to be evolving into pericardial tamponade. I called Blaisdell in the cafeteria to tell him I was taking the patient to the OR and asked him to meet me there. Unfortunately, the patient arrested in the small elevator leading from the emergency room to the OR, but I managed to do a thoracotomy in the elevator. Bill arrived at the OR just as the elevator door opened and saw my hand in the chest. Characteristically, he did what needed to be done. This was an emergency cut-down for venous access. During the senior part of my residency from 1968-1969, Blaisdell mostly covered the Trauma Service single handedly.

While at the Brigham, I had told Dr. Francis Moore of Blaisdell's work with acute respiratory distress syndrome (ARDS), and Bill was invited to be a visiting professor at the Brigham. He reaffirmed that I had a job at the County when I finished my fellowship. The next year, we met at the Society of University Surgeons in Pittsburgh. I was ready to give up on research, but he persuaded me to stay the course.

Typically, on our return to California, Bill and Marilyn Blaisdell invited our family—three kids, one dog, and two adults—to stay in their home. Our furniture was actually stored in their basement for several months.

My role was Project Coordinator for the Trauma Center Program Project Grant. Bill gave me carte blanche to run the program with his continued oversight. The grant added luster to the SFGH and the department. In 1973, we received one of the first 18 National Research Service Award (NRSA) Training Grants, which paid for a fellow in my laboratory. The first fellow was Richard Sanders, who was followed by a number of outstanding fellows, many of whom are currently academicians.

Blaisdell insisted that student teaching must be a high priority. In fact, the comments students made about our individual teaching sessions were circulated and we all competed for their favor.

Bill exemplified a type of mentoring and faculty support that transcended expectations. He was always more excited about his faculty's having a paper accepted or gaining membership in an organization than any

accomplishment of his own. He wanted us to have outstanding opportunities and be recognized in our own right. Blaisdell had career aspirations for all of us. My assignment included the title of chief of the Trauma Service—which was generous, as we all were chiefs during our time on call. Blaisdell advocated so strongly for us that sometimes we felt we were not up to his standards or expectations. Perhaps his only fault as a leader was that he seldom could believe anything unfavorable about his faculty.

The period was really one of a Camelot, and we all wished it would never end. However, Camelot, and all good things, do come to an end. Bill was initially reluctant to interview for the chair of Surgery at UC Davis, but he returned with the observation that there was more there than he expected. For Bill, it was ideal. He would have been suffocated in a department or situation without problems to solve. Surgery at UC Davis—like SFGH when he arrived there—was a problem department and provided him with an appropriate challenge for the remainder of his academic life.



BLAISDELL'S 1978 FACULTY

Lewis, Sheldon, Steele, Trunkey, Blaisdell, Thomas, Lim

CHIEF RESIDENTS — 1966-1978

1966-1967	1970-1971	Ed Conley
Steve Cary	Jan Bossart	John Young
Bob Edwards	Dave Fromm	
Paul Kelly	Jeff Nunes	1974-1975
Ole Peloso	Tom Reed	Bob Bush
Al Tassi	Ted Schrock	Roy Carlson
Larry Way	Donald Trunkey	Carol Raviola
	Richard Geist	Walt Rohlfing
1967-1968		Tom Russell
Gil Ashor	1971-1972	Bob Swanson
Peter Braunstein	Brent Eastman	Pat Dietz
John Bull	Jerry Goldstone	
Lou Buscaglia	Frank Lewis	1975-1976
Charles Jenkins	Dave Oliver	Bob Demling
Harry Wanebo	Tom Shapiro	Cliff Deveney
	Slate Wilson	Jim Holcroft
1968-1969	John Snyder	Fred Litooy
Bob Allen	Stuart Gourlay	Rich Starrett
Serge Betencourt		Pat Twomey
Larry Cohn	1972-1973	
George Sheldon	Orlo Clark	1976-1977
Peter Volpe	Doug Dorner	Earl Baumgartel
Jay Zubrin	Dave Fraser	Dennis Flora
Al Hocker	John Mehigan	Jim Malone
	Ralph Roan	Peter Noyes
1969-1970	John West	Sid Schwab
Treat Cafferata	James Yee	Dave Tapper
George Husband	Jerry Sydorak	
James Morrison		1977-1978
Charles Rosson	1973-1974	John Boey
Bob Stallone	Tom Gadaz	Ron Clark
RoyTawes	Barry Gardiner	Karen Deveney
	John Knudsen	Dave Hohn
	Rich Margules	Tony Roon
	Neil Olcott	Jim Wilson
	Francis Owings	

SENIOR SFGH FELLOWS

Postgraduate Fellows

(Residency training institution listed in parentheses)

Bengt Zederfeldt 1966-1967 — Wound healing with Hunt (University of Gothenburg) Professor, University of Malmö

Bruce Conolly 1967-1968 — Trauma and Hand with Blaisdell and Kilgore (University of Sydney) Professor, Sydney University

Lou Buscaglia 1968-1969 — Vascular with Blaisdell (UCSF)

Peter Braunstein 1969-1970 — Vascular with Blaisdell (UCSF)

Thomas Maxwell 1970-1971 — Vascular with Blaisdell (University of British Columbia) Professor, University of British Columbia

Robert Allen 1971-1972 — Trauma with Blaisdell (UCSF) Professor, UCSF

R. Bruce Heppenstall 1971-1972 — Wound healing with Hunt and Sheldon (University of Pennsylvania) Professor of Orthopedics, University of Pennsylvania

Nils Darle 1972-1973 — Trauma with Lim (University of Gothenburg)

Hoon Sang Chi 1974-1975 — Nutrition with Sheldon (Seoul University) Director, Yonsei University Medical Center, Seoul, Korea

Michael Nerlich 1976-1977 — Nutrition with Sheldon (University of Hanover, Germany)

Louis Oppenheimer 1977-1978 — Respiratory Failure with Lewis, Professor of Surgery, (University of Winnipeg)

John Sturm 1977-1978 — Respiratory failure with Lewis, Professor of Surgery (University of Hanover, Germany)

Sergei Pilduski 1972-1973 — Trauma with Blaisdell (University of Krakow, Poland)

Steve Parks 1976-1977 — Shock with Trunkey, Clinical Professor of Surgery (UCSF Fresno)

David Effeny 1976-1977 — Coagulation with Blaisdell, (Professor, then Dean University of Queensland, Brisbane, Australia)

Frank Lewis 1974-1976 — ECMO with Thomas (UCSF)

JUNIOR FELLOWS

UCSF Research Fellows

Bob Stallone 1967-1968 — Pulmonary physiology with Blaisdell

Treat Cafferata 1967-1968 — Intravascular coagulation with Blaisdell (Clinical Professor of Surgery, University of Nevada)

Joseph Okimoto 1968-1969 — Wound healing with Hunt

Jeff Nunes 1968-1969 — Intravascular coagulation with Blaisdell

Tim String 1969-1970 — Intravascular coagulation with Blaisdell (Professor of Surgery, University of Alabama)

Neil Olcott 1970-1971 — Intravascular coagulation with Blaisdell (Asst Professor of Surgery UCSF, Clinical Professor Surgery, Stanford)

Richard Sanders 1976-1977 — Nutrition with George Sheldon, Clinical Professor (University of Louisville)

Fred Litooy 1972-1973 — Wound healing with Hunt & Sheldon (Professor of Surgery (Loyola University)

James Holcroft 1974-1975 — Shock with Lim and Trunkey (Professor of Surgery UC Davis)

Sharon McLaughlin 1975-1976 — Trauma with Lim

Kenneth McIntyre 1977-1978 — Coagulation with Lim and Blaisdell, Professor of Surgery (University of Arizona)

Scott Petersen 1977-1978 — Nutrition with Sheldon , Clinical Professor (Univ Arizona)

Jim Raffa 1977-1978 — Shock with Trunkey

Richard Sanders 1973-1974 — Nutrition with Sheldon

Kenneth Kudsk 1974-1975 — Nutrition with Sheldon, Professor of Surgery University of Tennessee

CHAPTER IV

THE TRUNKEY YEARS: 1978–1986

In 1977, Bill Blaisdell, the chief of Surgery at SFGH, decided that it was time to leave. Paul Ebert had taken over the chair of Surgery at UCSF, replacing Bert Dunphy, and things were not going to be the same. Blaisdell felt that the most productive members of the faculty were at San Francisco General, but it was clear that any resources available would go toward building at the Parnassus campus, not San Francisco General. He felt his career was plateauing and that the young bucks in his department were nipping at his heels.

On July 1, 1978, he accepted the job of chief of Surgery at UC Davis. Paul Ebert indicated that he wished to appoint Blaisdell's successor from within the UCSF faculty and asked Blaisdell's advice. The obvious candidates were George Sheldon and Don Trunkey. Blaisdell refused to be drawn out as to who would make the best chief. His judgment was, "Either would be superb. Both are sure to have their own departments one day."

After much head scratching and vacillating, Ebert selected Trunkey as chief. Blaisdell felt that this was because he wanted to keep both Trunkey and Sheldon. He felt that Trunkey might leave immediately for another job and that Sheldon, who was deeply involved in research, was more likely to stay for a while—and this did prove to be true.

In 1978, the hospital was at its apogee. The new San Francisco General Hospital was but two years old. The Trauma Program was receiving both local and national acclaim, thanks to the activities of its productive staff. The City coffers were filled, and the hospital was well supported financially. Thanks to the publicity its Trauma Program was receiving, the director of Public Health was successful in promoting funding for the ambulance system and for SFGH's Medical and Pediatric Services with the argument that they were needed to support the Trauma Program. While the general public did not necessarily want to look to SFGH for their medical care, the publicity being received by the hospital was such that they believed that SFGH was where they wanted to go if they were injured.

An outstanding hospital administrator, Charles Windsor, had been appointed in 1976 and was providing strong leadership for the hospital, which had suffered from generations of weak or ineffective managers.

However, there was a dark cloud that would obscure this bright picture almost immediately and make Trunkey's job more difficult. In June of 1978, Proposition 13—an initiative placed on the ballot by public petition, which is a tradition of California's constitutional system—was passed by the irate taxpayers of California, who were suffering from what seemed to them to be an unacceptable burden related to rapidly escalating property taxes. Property taxes were the main source of the City's revenue, and overnight Proposition 13 cut this revenue drastically. Within a few months of the onset of Trunkey's tenure as chief of Surgery, the hospital was threatened with closure.

At that time, Trunkey had just visited Australia, where he served as the Douglas Lecturer. On his return, he had planned to stop off for a few days in Fiji for a rest, but he received a call from the hospital administrator asking for his help. He cancelled the rest of his trip and returned to assist in the defense of the hospital. This effort was successful—the hospital remained open, but with a drastic reduction in its budget.

Matters were not helped by the presence of a virulent City chief administrative officer (CAO), Roger Boas. Boas had run an automobile dealership before being appointed CAO in 1976. The Department of Public Health, the hospital, and all health facilities receiving funding from the City of San Francisco fell under the authority of his office. He had no knowledge of hospitals and no feeling whatsoever for the issues regarding provision of health care. He believed that the private sector could handle indigent care and when his proposal to close the hospital was rejected by the political system, he ordered specific cuts, such as those related to blood utilization, xray films, and pharmacy expenditures. SFGH administrator Charles Windsor pleaded to be allowed to handle the cuts so as to do the least damage. When his request was denied, he resigned. His resignation was followed by a revolving door of acting and semi-permanent hospital administrators—a total of five during Trunkey's eight years as surgical chief. Fortunately for the morale of the staff, Trunkey was able to bear this frustration with his usual equanimity.

The principal impact on the Surgical Service was the requirement to cut back drastically on elective surgery. Since Trauma was the sacred cow and no other hospital would take trauma cases, this and related services were financially spared. Therefore, the emergency room, xray department, and laboratory survived more or less intact.

THE PROFESSOR

Donald D. Trunkey

Donald Trunkey—a tall, affable, charismatic man—was appointed chief of Surgery in the fall of 1978, at the age of 41.

Trunkey had grown up in a small town 50 miles south of Spokane, Washington. He was the son of a college-educated teacher who became a blacksmith in order to earn a living during the depression. As a teenager, he drove wheat trucks, tractors, and combines. While in college at Washington State University, he supported himself by working as a construction worker, miner, service station attendant, and carpenter.



Trunkey graduated from college in 1959, marrying Jane Mary Henry in his senior year. Jane's straightforward, open, and unadorned enthusiasm for life

has been a delightful complement to Don's commanding presence—theirs is a relationship that remains strong as it approaches half a century.

He matriculated at the University of Washington School of Medicine in the fall of 1959 and worked in Al Shears's cardiac electrophysiology laboratory during his first year. He participated in an epidemiological study of the Coxsackie virus in his second year of medical school. His initial goal was to become a small-town general practitioner in Eastern Washington. His main role models as a medical student were two distinguished Internists, Dr. Robert G. Petersdorf and Dr. Clement A. Finch. Bob Petersdorf served as chair of the University of Washington Department of Medicine from 1964 to 1979 and president of the Association of American Medical Colleges from 1986 to 1994. Clem Finch—a gifted teacher and eminent hematologist—established the Division of Hematology at the University of Washington.

After his graduation from medical school in 1963, Trunkey began a rotating internship at the University of Oregon. There, he came under the spell of Bert Dunphy, the chair of Surgery and, by the third week of his Surgery rotation, the future course of his professional life was decided.

However, Uncle Sam had other plans for Trunkey. He was drafted into the Army and was sent to Germany after he completed his internship in June 1964. Alcoholism was rampant in the professional Army at that time. He was profoundly affected by the devastating effects of alcohol addiction on the lives of his patients, and set up an Alcoholics Anonymous Club to help them with their burden.

He maintained his relationship with Dunphy and in May 1966, while on vacation in Norway, he received a phone call offering him a residency position in Dunphy's new Department of Surgery at the University of California, San Francisco (UCSF). By the time he returned to the United States, he had tentatively opted to pursue a career in ophthalmology—a decision influenced by his father-in-law, who was a leading ophthalmologist in Colfax, Washington. But he ultimately chose to accept Dunphy's offer at UCSF.

Trunkey recalls his residency at UCSF as “a perfect time.” He was influenced by Bert Dunphy, Jack Wylie—chief of Vascular Surgery, Maurice Galante, Leon Goldman, and of course Bill Blaisdell. His first rotation was at San Francisco General Hospital. He had been there only a few weeks when Blaisdell called him into his office and asked, “What is this I hear about your wanting to go into ophthalmology? That is a grave mistake.” Don must have been having second thoughts about such a career, as he acknowledged that perhaps he was better suited for a career in surgery. He was particularly attracted to the “instant gratification” of trauma surgery that he was seeing at the General. Gunshot wounds and soft-tissue infections were epidemic, thanks to the escalating use of drugs and the associated violence that was occurring in the City during his residency.

His first rotation at SFGH during his chief residency was to the Elective Surgery Service in November 1970. At that time, there was an Elective Surgery Service; a Trauma Service that did both trauma and emergency surgery; and an Extremity Service, run by a junior resident, that treated the myriad patients with soft-tissue infections. His next rotation that year was two months on the Trauma Service. During his third week on the Service, he invited Bert Dunphy to serve as his visiting professor, and Dunphy—because of his admiration for Don—agreed to serve (*see Chapter III*).

During his chief residency, Trunkey made the decision to pursue a career in academic surgery as opposed to private practice. His interest in trauma was solidified by his experience at SFGH and, encouraged by Blaisdell, he consulted with Dunphy. During his interview, he told Dunphy that he would like to spend a year with Tom Shires, chief of Surgery at Parkland Memorial Hospital in Dallas, Texas, with the University of Texas Southwestern Medical School. Shires had edited a major book entitled *Care of the Trauma Patient*. Parkland was a legendary hospital because of its association with the treatment of President Kennedy when he was assassinated. Many members of the surgical and nursing staff there had participated in the treatment of Kennedy and Governor John Connolly. Also there was a basic science research program focusing on shock. It seemed the perfect place for additional training in Trauma. Dunphy immediately picked up the phone, called Shires, and arranged the fellowship for him.

Trunkey had a very productive year in Dallas with Tom Shires, whose research centered on the study of the cell in shock. He learned to measure cell transmembrane potential, which permitted the calculation of electrolyte and water movement in and out of the cell. He would continue to utilize this technique to study fluid resuscitation in shock when he established his own laboratory back in San Francisco. During this period, he wrote important articles on the management of rectal trauma and liver trauma, which were published after his return to San Francisco.

He polished his clinical skills by taking call on the Parkland Trauma Service. The clinical approach, Trunkey recalls, was quite different at Parkland. All surgical problems were managed by protocols approved by the chief—Dr. Shires. Any deviation from the protocol, regardless of the rationale, resulted in a harsh rebuke. (*Editor's note: It is hard to imagine Trunkey following protocols!*)

During his tenure in Dallas, Trunkey received a number of phone calls from Blaisdell encouraging him to return to SFGH. The problem was that he knew George Sheldon had joined the faculty just as he had left for Texas. The issue was, "Is there room for both of us?" Ultimately, he was convinced that there was, primarily because the SFGH Surgery Department had just received a large Program Project Grant that would ensure funding for his research.

Trunkey returned to San Francisco General in the summer of 1972 and began his academic career by continuing his study of cellular transmembrane potentials in primates subjected to shock. This work was funded by an NIH grant of \$60,000 per year, which allowed him to hire Mary Ann Carpenter as his research technician. By 1978, his research focused on transmembrane potentials in the adrenal gland and the liver, the effect of steroids on the response to shock, and the study of transmembrane calcium transport, both in the animal laboratory and in ICU patients.

Between 1972 and 1978, Trunkey published 32 articles, primarily in the fields of clinical trauma care and the pathophysiology of shock. Jim Holcroft, an outstanding resident, was an important collaborator in the laboratory investigations of the physiological and cellular effects of fluid resuscitation. Holcroft, while Trunkey's research fellow, developed a method of calculating extravascular lung water.

During his time in Texas, Trunkey had been exposed to Charles Baxter and the Burn Center at Parkland Hospital. SFGH had no organized burn unit,

and burns were cared for on the regular hospital wards. Most burns in the City were treated at the private burn unit run by plastic surgeons at St. Francis Hospital. The quality of care provided for the burn patients in San Francisco did not compare with that provided at Parkland. Shortly after Trunkey's return, he approached Blaisdell and offered to establish a burn unit. Blaisdell thought it was an excellent idea and it was carried out in typical Trunkey style, leaving hospital administration apoplectic! (*See Chapter III.*)

Trunkey was a superb teacher, receiving the UCSF Academic Senate Teacher of the Year Award in 1975 after only three years on the faculty. He loved to shock people and make outlandish statements to see their effect. Whenever Trunkey sat on a panel at a national meeting, it was great theatre and the hall was packed. "He made a huge impression, and his persona was bigger than life. It gave him an entrée into every level of medicine. He was immediately in charge no matter where he went."

He was a superb technical surgeon. He was fast but precise at the operating table. His compassion for both his patients and his colleagues, his passion for his work, and his sound surgical judgment outshone even his technical virtuosity. His skill and supreme self-confidence gave him a pleasing way of putting the operating room team at ease. With a glance, he could communicate to his team the probability of the patient's survival.

By the time Trunkey assumed the position of chief of Surgery at SFGH, he had become an international celebrity in the world of trauma surgery. The study by West, Trunkey, and Lim, done the year before he became chief of Surgery, was having its full national impact and precipitated attention directed at establishing trauma programs everywhere. Trunkey's fame resulted not only from his charisma, but also from his devotion and untiring advocacy of the importance of organized systems of trauma care in reducing morbidity and mortality.

Trunkey succeeded Blaisdell as chair of the Northern California Chapter of the Committee on Trauma of the American College of Surgeons in 1979. From there he was appointed to the American College of Surgeons Committee on Trauma (COT) and served as chair of that Committee from 1982-1986. During that period, he stimulated the certification and verification of trauma programs. During Trunkey's tenure as chair, the COT initiated the Advanced Trauma Life Support (ATLS) program to train surgeons and emergency physicians in resuscitation techniques appropriate for trauma. In 1983, as a result of a discussion between UCSF Dean Julius Krevans and the editor of *Scientific American*, Trunkey received an invitation to write a review article on the subject of trauma. This article popularized the concept of trauma as an epidemic. Trunkey put trauma on the national agenda and made the need to improve trauma care understandable. There can be no question but that Trunkey was the father of organized trauma care in the United States.

In the course of promoting the importance of trauma care, Trunkey became a world traveler—lecturing and participating on panels in postgraduate courses and in visiting professorships. Despite spending extensive time away from SFGH, he immediately dug in on his return, and during the course of the academic year he managed to take his full share of trauma and emergency call. How he managed his demanding schedule was amazing to behold!

In 1980, Trunkey became a director of the American Board of Surgery, and he chaired its Committee on Vascular Surgery the following year. In 1981,

he was elected President of the Society of University Surgeons. The same year he received the James IV Surgical Traveling Scholarship. He used these positions as a bully pulpit to push the Trauma agenda within both the professional and political arenas. In 1983, he was appointed to the NASA advisory committee, and he had ambitions to take some of his shock and trauma concepts into space. In 1986, Trunkey became the President of the American Association for the Surgery of Trauma.

SURGICAL STAFF

When Trunkey took over as chief of Surgery at SFGH, the full-time faculty members included Art Thomas, Bob Lim, George Sheldon, Muriel Steele, and Frank Lewis.

Muriel Steele

Muriel Steele did an exceptional job of coordinating the outpatient Surgery Services, supervised the department's billing and finances, ran the Proctology Clinic, and did most of the breast, endocrine, and anorectal surgery (*for Steele's biography, see Chapter III*). Her Colorectal Clinic had so many gay patients with perianal warts that the residents referred to it as "Wart Clinic." This was before AIDS was recognized. Steele found that many of her patients had unusual infections, but she could not get the Medical Service interested in them.

She also served as the conscience of the department, making sure that everyone kept their clinical assignments, met their teaching schedules, and covered their clinics. She was the only member of the faculty who could intimidate Trunkey.

She served two terms as chief of staff and, more than any other person, helped ensure that the hospital met JCAH guidelines.

Unfortunately, Steele developed leiomyosarcoma of the uterus in the fall of 1978 and battled the disease heroically during 1978-1979. She developed a malignant bowel obstruction in the fall of 1979. Trunkey operated upon her and performed an intestinal bypass of the unresectable tumor. She died at home shortly thereafter, receiving hospice care from her long-time colleague and friend, Sandy Libby. Libby was the head nurse in the Surgery Clinic located on Ward 3M.

Shortly after her death, in recognition of her contributions to the hospital and, in particular, her development of SFGH's Medical and Surgical Clinics, the Surgical Clinic was renamed the Muriel Steele Surgery Outpatient Clinic.

Robert C. Lim, Jr.

Bob Lim was the mainstay of the clinical service, and he did most of the vascular surgery and all of the liver surgery (*for Lim's biography, see Chapter III*). Fluent in Cantonese and a product of San Francisco's Chinatown, Bob maintained a close relationship with the physicians serving the Chinese community. His superb judgment, technical virtuosity, and pleasing bedside manner made him a favorite with the patients and their families, the referring physicians, and the residents. He did most of the endocrine surgery—the thyroidectomies, parathyroidectomies, and adrenalectomies. He also took on the responsibility for providing vascular access for the Nephrology Service. He

continued to run the Emergency Department until 1982, when he asked to be relieved of this chore and was replaced by Frank Lewis.

Arthur Thomas

Art Thomas continued to be responsible for thoracic surgery, as well as taking his share of trauma call with all the others. The residents loved scrubbing with “Uncle Art.” The chest cases were challenging, and Art’s vast experience and unique sense of humor added greatly to the residents’ enjoyment of the operations. (*For Thomas’s biography, see Chapter III.*)

Frank Lewis

Frank’s special interest was the ICU. He had become interested in the acute respiratory distress syndrome (ARDS) and initiated a research program directed at lung water measurement. His detailed biography is provided in the subsequent chapter. (*For Lewis’s biography, see Chapter V.*)

George Sheldon

George Sheldon ran the Trauma Program Project Grant and was actively involved in nutrition research. He supervised a continuous line of trauma research fellows. In July 1984, after receiving numerous similar offers, he left to take the chair of Surgery at the University of North Carolina. (*For Sheldon’s biography, see Chapter III.*)

Richard Crass

Rich Crass joined the faculty in July of 1979, on the completion of his chief residency at UCSF. He was Trunkey’s first recruit and served as a replacement for the loss of Muriel Steele. Crass was a mustached, cigar-smoking, natty dresser with a dry sense of humor. He had an encyclopedic knowledge of the literature of gastrointestinal surgery. He had done a fellowship in gastrointestinal (GI) surgery at the Beth Israel Hospital in Boston in the middle of his residency. Trunkey was interested in the possibility that gut permeability was a mediator of sepsis, and he had hoped that Rich would set up a laboratory to study this problem. However, Rich’s interests proved to be primarily clinical, and he developed a close working relationship with John Cello—the chief of GI Medicine at SFGH. During this period, he made many important clinical contributions related to the management of gastrointestinal bleeding.



Crass left SFGH to go to the University of Oregon with Trunkey, when Trunkey left San Francisco. Subsequently, in 2000, he was appointed chair of Surgery at the University of Florida, Jacksonville.

William Schecter

Bill Schecter has had an extremely interesting and diverse background. He was born and raised in New York City and spent two summers in an agricultural high school in Israel and a third summer at a kibbutz.

At age 16 years, he spent three months with his father's business agent in Tokyo, Japan, living in a Japanese household. He graduated magna cum laude with a degree in political science from Harpur College in Binghamton, New York. While there, he studied French, Russian, and Arabic. He obtained his M.D. degree from Albany Medical College in New York in 1972 and took a rotating internship at SFGH the following year. Because of his interest in critical care, he decided to take a residency in anesthesiology at Massachusetts General Hospital before starting surgical training. He completed his anesthesiology residency in September 1975 and was accepted for surgical residency at UCSF starting July 1976. However, there were several dropouts from the program, and Schecter was able to start his training on March 1, 1976.



Schecter was Rich Crass's chief resident classmate, both finishing residency in June 1979. He joined the faculty at SFGH in January 1980, after completing a fellowship in hand surgery with Eugene Kilgore and Bill Newmeyer. He took a leave of absence from the faculty for three years. Between 1981 and 1983, he served as Chief of Surgery at the LBJ Tropical Medical Center in American Samoa. He was a Lecturer in Surgery at the University of Natal in Durban, South Africa from 1983-1984 where he gained extensive experience with esophageal and gastric resection for malignancy as well as tropical surgery and trauma.

He returned to SFGH in 1984 and shared call on the Hand and Extremity Service with Robert Markison, in addition to participating actively as a general and trauma surgeon. He became Chief of Surgery at SFGH in 1993, succeeding Frank Lewis.

Robert Markison

When Bill Schecter left for Samoa in 1981, Trunkey hired Bob Markison to replace him. Bob was a brilliant, creative thinker with an artistic temperament. He played several wind instruments professionally, was an artist and sculptor, and used his artistic abilities to illustrate his lectures and operative notes. After completing his general surgery residency at UCSF in 1983, he trained in hand surgery with Eugene Kilgore and Bill Newmeyer. In addition to hand surgery, Markison also covered general surgery and trauma. He was one of the pioneers in the use of computer technology at San Francisco General. Bob considered his position, "one of the ultimate jobs in surgery."



Anthony Meyer

Tony Meyer was recruited by Trunkey after completing his residency in surgery at UCSF in 1982. He was considering a career as a surgical oncologist, but declined a fellowship at M. D. Anderson Hospital when Trunkey

asked him to join the SFGH Faculty. He filled two important roles, serving as both ICU and Burn attending.

He left in 1984 with George Sheldon to take the position of ICU and Burn director at the University of North Carolina.

Meyer went on to become a national leader in Trauma and Critical Care, and then the President of the American Association for Surgery of Trauma. He was appointed chair of the Department of Surgery at the University of North Carolina in 2001, following George Sheldon's retirement.



Michael Hickey

Mike Hickey was recruited in 1985 to augment the role of the Department of Surgery in the emergency room and to replace the expertise in surgical nutrition, which was lost when George Sheldon left. (*For Hickey's biography, see Chapter V.*)

SURGICAL SPECIALTIES

Anesthesia

Barrie Fairley continued as chief of Anesthesia until 1979, when he was appointed UCSF associate dean for SFGH. He continued to function in parallel as chief of Anesthesiology until the mid 1980s, when Cedric Bainton succeeded him. Both ran an outstanding service and were well supported by UCSF faculty and residents.

Ear, Nose, and Throat

Roger Crumley continued as chief of the ENT Service until 1979, when he left to become head of the Department of ENT at UC Irvine. Thomas Wild succeeded him.

Neurosurgery

Julian Hoff continued as chief of Neurosurgery until 1979, when he left to become chair of Neurosurgery at the University of Michigan and a leader in his specialty in the United States. He was succeeded by another excellent trauma neurosurgeon, Lawrence Pitts, whose work in trauma set national standards in his specialty.

Orthopedics

Ted Bovill remained chief of Orthopedics until his retirement in 1980. He was succeeded by a controversial chief, Lorraine Day, who took issue with many of the cooperative trauma practices of the Surgical Service. She was hysterical on the issue of AIDS and refused to operate on patients who had AIDS. She went on the national speaking circuit, emphasizing the AIDS risk to surgical personnel. She espoused space suit protection for surgeons operating on patients in a county hospital setting.

Peter Trafton, a down-to-earth orthopedist, served as assistant chief of orthopedics and continued the aggressive policy of early fixation of fractures.

Urology

Jack McAninch continued as the very effective chief of Urology. He became recognized as the number-one trauma urologist in the United States, and he was elected to the Board of Regents of the American College of Surgeons and the American Board of Urology.



Bob Walton

Plastic Surgery

In 1978, Luis Vasconez was appointed chief of the Division of Plastic Surgery at UCSF. Shortly thereafter, he recruited Robert Walton, who had just completed his training at Yale, to be full time head of plastic surgery at SFGH.

Bob Walton proved to be an outstanding addition to the staff. He not only covered plastic surgery but also took trauma call and became an intrinsic part of the SFGH surgical family. He was well liked by the general surgery staff and interrelated well with them. In 1979, he recruited Juris Bunkis as assistant chief of plastic surgery and, during the three years Bunkis was at SFGH, he and Walton were extremely productive. Walton's tenure lasted until the end of the 1980s.

CLINICAL PROGRAM

When Trunkey took over as chief of Surgery, it was clear that times had changed. His management style was much looser than that of Blaisdell. The staff were expected to assume more personal responsibility for making the service run. This generated a warm and friendly environment in which staff members were allowed to do their "own thing." All they had to do was be prepared to justify it. No doubt expectations were high, but Don Trunkey had confidence in his faculty, and they in turn had the utmost confidence in him.

Initially, the service organization and call schedule continued pretty much as it had under Trunkey's predecessor. Gradually, as the service evolved, modifications were necessary. The trauma faculty who did not live close by were required to remain in-house when they were on call, as the new American College of Surgeons (ACS) guidelines required that supervising faculty in Trauma Centers must be immediately available.

Up until Proposition 13 resulted in major cutbacks in clinical programs, SFGH had always been the major teaching hospital for UCSF's students and residents. Just over half of UCSF medical students and residents were assigned to the hospital at any one time. All of the medical students were assigned to SFGH for at least one rotation on Surgery during their junior year. Six faculty members, with the help of volunteer clinicians from the community, did the majority of the surgical teaching.

The number of elective cases declined on all SFGH services following the restrictions on admissions generated by Proposition 13. Surgery was particularly hard hit, and as a result the Extremity and Elective Services were

combined in 1979-1980. This change was followed by a cutback in the number of surgery residents assigned to SFGH.

This period also constituted the transitional phase from Blaisdell's philosophy that an exploratory laparotomy was a continuation of the physical exam, to the modern notion that the use of emerging technology could improve trauma evaluation. Under Trunkey's leadership, CT scanning was established as a valuable adjuvant to trauma assessment, permitting more effective screening and the earlier discharge of patients.

In addition to trauma, there was an extraordinary number of cases of gastrointestinal (GI) bleeding and pancreatitis on the Surgical Service due to the large number of alcoholic patients treated at San Francisco General. Rich Crass and Mike Federle were among the first to recognize the utility of the abdominal CT scan in the evaluation and treatment of patients with severe pancreatitis. Controversy regarding the management of GI bleeding led to a number of randomized studies involving the Medical and Surgical Services.

OUTPATIENT DEPARTMENT

Initially, under Muriel Steele's leadership, the clinic coverage proceeded as before. Steele's Colorectal Clinic was temporarily taken over by Trunkey immediately following her death. Later it was incorporated into Rich Crass's GI Clinic.



Pictured from left to right are: unidentified lady, Don Trunkey, Mervyn Silverman, Director of Public Health, To-Nao Wang, Surgical Resident, Sandy Libby, Head Clinic Nurse, Julius Krevans, Dean and Chancellor of UCSF and Barrie Fairley, UCSF Associate Dean for SFGH.

There was so much respect for Muriel Steele that a number of significant dignitaries attended the dedication of the Surgical Clinic in her honor. Bob Lim and Trunkey covered the Vascular Clinic and Art Thomas covered the Thoracic Clinic. George Sheldon covered the Nutrition and Trauma Clinics. Frank Lewis ran a Trauma and a General Surgery Clinic. Trunkey, and later Tony Meyer, followed up burn patients. Bill Schecter and Bob Markison

covered the Hand Clinic and extremity clinic in addition to Trauma and General Surgery Clinics.

MISSION EMERGENCY HOSPITAL

The emergency room (ER)—Mission Emergency Hospital (MEH)—was becoming an increasing challenge for the Surgical Service to manage. The reason was that the ER was functioning more and more as a drop-in clinic. Previously—before the introduction of Medicare and MediCal—a hard-nosed attitude was taken toward patients presenting for emergency care. If the triage nurse did not perceive that a true emergency existed, the patient was referred to the clinics for care. As emergency rooms opened up in almost all of the hospitals in the city, anyone who presented to these private ERs was examined and treated, in order to justify staffing. The amount of money charged was of course much higher than the charges for an equivalent emergency treated in a doctor's private office. In order to compete and provide care equivalent to that in the private sector, MEH accepted the task of treating everyone who presented. The new ER had a "drop-in" area, which, as staffing became available, took responsibility for the non-critical emergencies.

The basic character of the ER had changed, and the vast majority of patients who presented for treatment required medical, not surgical, care. The Medical Service was not willing or able to increase its staffing appropriately to meet the needs of the ER. Blaisdell had hired an emergency physician, William Teufel, hoping that he would start an emergency residency training program, but Teufel wanted full administrative control of the ER before he initiated a training program. This control was something the surgeons were not yet willing to give up.

Bob Lim, who had headed MEH since 1968, became frustrated with the difficulty staffing the ER, and Frank Lewis temporarily assumed charge in 1983-1984. Teufel, by that time, had gone ahead and initiated an emergency physician training program. Lewis and Teufel came into conflict over administrative responsibility for MEH and, as the result of the conflict, Teufel resigned. In 1985, Trunkey, frustrated by the staffing difficulties, reluctantly turned over administrative control to Allan Gelb, an emergency physician. At the same time, he insisted that Surgery remain in charge of all surgical and trauma triage and treatment. Gelb proceeded to hire attending ER physicians to provide 24 hour attending ER coverage.

In order to maintain the surgical presence in the ER, Trunkey hired Mike Hickey, in 1985, to supervise the surgical residents and resolve the ER surgical problems. The Surgical Service continued to rotate interns and junior residents to the ER, but their responsibilities were now limited to surgical triage and treatment. The Surgical Service remained in charge of all of the trauma that presented, and worked cooperatively with the attending ER physicians.

THE INTENSIVE CARE UNIT

The director of the Intensive Care Unit (ICU) was Dick Schlobohm, a tall, highly skilled Anesthesiologist from Iowa who was a commanding presence. He administered the ICU and the Respiratory Care Service with Prussian efficiency. Although all of the surgical ICU patients remained under the control of the Surgical Service, a separate ICU Service rounded on the

patients daily, managed the ventilators, and wrote the sedation orders. The ICU resident staff was multidisciplinary. The residents covering the ICU rotated from the Surgery, Medicine, and Anesthesiology Departments. There was also an ICU fellow from a program run by the UCSF Department of Anesthesiology. Jim Macho, in the middle of his residency, trained in this program in lieu of a research year. The faculty were also multidisciplinary. Frank Lewis was the only faculty member representing Surgery until Bill Schecter, and later Tony Meyer, joined the group. At that point, Lewis, Schecter, and Meyer all became regular members of the ICU faculty, in addition to their other duties on the Surgery Service.

ICU beds were always at a premium and, on occasion, SFGH would have to redirect trauma patients and critically ill patients to other hospitals due to a lack of beds. This problem was an anathema to Trunkey, who urged his staff to do everything possible to avoid diverting patients elsewhere. The diversion could be disastrous for the hospital and the Trauma Program, for if trauma cases could be diverted successfully to the private sector, then what was the justification for the SFGH Trauma Program? The surgeons supervising the ICU did their best to maintain the flow of patients by making rounds not only in the Surgical ICU, but in the Medical ICU as well—keeping an eye out for empty beds. This triage was initiated at all hours of the day and night, whenever the hospital administrators threatened to divert patients to other hospitals. It was usually possible to find a bed that the nursing supervisor had missed.

THE BURN UNIT

The Burn Unit was located in Ward 4J, across the corridor from Ward 4B, where most of the patients with soft-tissue infections were hospitalized. Trunkey continued as director of the Burn Unit until Tony Meyer joined the faculty in 1982 and took over this responsibility.

The head nurse in the Burn Unit during this period was Mallory Hondorp, an excellent nurse. Burn care was evolving at that time. Patients previously had been debrided in a large tub of warm water under inadequate sedation—a barbaric practice. In 1980, this treatment was abandoned in favor of excision of the burn wound and immediate wound coverage in the operating room under anesthesia. Pigskin was used as a biologic dressing for big burns. Burn wound sepsis remained a problem that was not solved until the end of the 1980s, when immediate burn excision and coverage with autograft or homograft skin was introduced.



Trunkey inspects burn patient

Trunkey inspects burn patient under anesthesia. Pigskin was used as a biologic dressing for big burns. Burn wound sepsis remained a problem that was not solved until the end of the 1980s, when immediate burn excision and coverage with autograft or homograft skin was introduced.

The volume of burn cases began to decrease during the 1980s. In addition to St. Francis Hospital, burn units were now developing at Alta Bates Hospital in Berkeley, Oakland Children's Hospital, UC Davis Hospital in Sacramento, and the Valley Medical Center in Fresno. All competed for a

number of patients that was decreasing, due in part to an excellent burn-prevention program in Northern California.

When a nursing shortage developed in 1980, the Burn Unit was temporarily closed and the excellent group of nurses dispersed. Burn care was transferred to the ICU. When the Unit reopened a year later, it was with much reduced resources. Henceforth, its orientation was primarily toward taking care of burns on an outpatient basis.

Trunkey could rightfully claim some credit for the decreased number of burn patients. In the 1970s, he joined forces with a political activist, Andrew McGuire, and formed the Northern California Burn Council. This group was active in promoting fire retardant children's clothing, self-extinguishing cigarettes, and burn-prevention education programs. When Trunkey became chief of Surgery, the Burn Council was incorporated into the Trauma Foundation, an advocacy group that helped pass the Motorcycle Helmet Law in California.

Trunkey had a second agenda as well. He turned over responsibility for Department Research Funds to the Foundation's independent account, managed by the Department's administrative officer, Bob Steele. Steele promised to handle them at much lower cost when they were free of the UCSF Dean's exorbitant tax. However, the extramural location of Department funds made it easier for Steele to embezzle the money (*see Finances*).

THE AIDS EPIDEMIC

In the late 1970s, Muriel Steele began to see an increasing number of gay patients in the Proctology Clinic who had a variety of complaints, including anal warts, proctitis, diarrhea, anorectal ulcers, and the so-called "gay bowel syndrome." In 1979, gay patients with strange skin lesions began to present to the ER and the clinics occasionally. The lesions proved to be a previously rare disease, Kaposi's sarcoma.

Bill Schecter was called to the Respiratory Medicine ICU on Ward 5R in the spring of 1981. There, he saw a 33-year-old gay man dying of hypoxia due to an unknown disease that was causing bilateral interstitial pulmonary infiltrates. Schecter was unenthusiastic about an open lung biopsy because of the high risk, but agreed to proceed. To everyone's amazement, this young man—despite the fact that he did not have lymphoma and had no history of organ transplantation or immunosuppressive drugs—had *Pneumocystis carinii* pneumonia. In the same year, outbreaks of Kaposi's sarcoma and *Pneumocystis carinii* pneumonia also appeared in Los Angeles and New York. Trunkey commented: "We didn't know what the hell was going on. Nobody had a clue that we were looking at an immune deficiency disease. Then it dawned on us, in 1981, that we were facing an entirely new disease that was devastating the gay community—the Acquired Immune Deficiency Syndrome, AIDS."

Initially, no one knew how this disease was transmitted—by aerosol, the gastrointestinal tract, or by casual sexual contact. No one knew what the incubation period of the disease was. In the early 1980s, before anyone knew any better, many gay patients with generalized lymphadenopathy were investigated by open lymph node biopsy. These procedures were frequently bloody and large amounts of serous fluid would drain from the incisions.

Following the recognition of AIDS, surgeons would wrap themselves in plastic garbage bags in a primitive attempt to decrease their risk exposure to

blood and body fluids. As the death toll began to mount among these AIDS patients, and as it became recognized that the incubation period was prolonged, many of the staff in the hospital began to fear for their own lives. At the same time, the affected patients suffered social ostracism. The gay community rallied to the cause and established an incredible social service network to care for affected patients. Political action groups formed who demanded more support for research and improved treatment.

One of the UC surgical residents, Kay Riggs, came down with the disease after having a blood transfusion. She died after a short, devastating illness. The origin of the infection was not immediately determined, and this added to the growing concern among all the doctors. At that time, blood transfusion had still not been recognized as a cause of AIDS, and there was no screening test for it.

Many nurses insisted on caring for the patients wearing a mask, gown, and gloves. The hospital administration instituted a policy forbidding this practice and subsequently fired three nurses who refused to comply, despite the fact that there was no information on the effectiveness of this practice or lack thereof. Trunkey responded to the concerns of the residents by telling them that, if they didn't want to operate on the patients, the attendings would do it. "You don't discriminate against AIDS patients! We were afraid, but we're not going to deny patients care because of it." Bill Schechter provided an important leadership role in setting up standards and safeguards for the emergency room and the operating room for patients presumed to have AIDS. Human Immunodeficiency Virus, HIV—the cause of AIDS—was discovered by Luc Montagnier in 1983 and was confirmed by Robert Gallo in 1984.

Under the leadership of Paul Volberding in Medical Oncology, Donald Abrams in Medical Oncology, Connie Wofsy in Infectious Disease, and Gayling Gee—an outstanding young nurse administrator—an outpatient clinic was opened on Ward 86. In addition, a ward was devoted to the care of AIDS patients—first Ward 5B, then Ward 5A.

The San Francisco General HIV program became a model for the rest of the world. However, the surgical residents at the time nicknamed Ward 5A "The Temple of Doom," after a popular film of the era, because of the poor prognosis for the AIDS patients. Treatment of HIV-infected patients was to become a major focus of San Francisco General for the rest of the century.

THE RESIDENCY PROGRAM

All of the surgical housestaff were UCSF residents, rotating for periods of one to two months. The resident staff were recruited from the best graduates of the best medical schools in the country and were uniformly excellent. Most of the graduates of the residency program went on to fellowship training or academic jobs after completion of their training. In addition, there was usually a resident from the California School of Podiatric Medicine assigned to the Surgical Service.

There were now only two Surgical services, Trauma and Elective-Extremity. All of the trauma and emergency surgery patients were hospitalized on the Trauma Service, which was headed by a chief resident. The Elective Service was run by a senior resident. In addition, if the chief resident did a complex elective case, the patient was usually put on the Trauma Service so that

the chief resident could more closely supervise the postoperative care. Burns were also moved from the Extremity Service to the Trauma Service so that the chief resident could control the care of the desperately ill patients.

The Elective-Extremity service covered non-emergency cases and soft-tissue infections. During this period, the shift to outpatient surgery for hernias, breast surgery, and certain anorectal problems began. In parallel, the number of soft-tissue infections due to drug and alcohol abuse increased. As a result, about half of the hospitalized patients on the Elective-Extremity Service had soft-tissue infections.

Typically, a resident would spend one or two months on the Trauma Service as an intern, another month as a junior resident, two months as a senior resident, and one or two months as a chief resident. Interns and junior residents would rotate for one- to two-month blocks on the Elective-Extremity Service. UCSF surgical interns and residents also rotated through other SFGH Surgical Services, such as Orthopedics, Neurosurgery, Urology, and Otolaryngology, as well as the emergency room.

The residents all loved Don Trunkey because of his dynamic personality. While he was chief, Don would make breakfast rounds with the Trauma Team once a week. Trunkey would dissect an entire case with incredible skill, making a lot of teaching points. When he was chief resident, Jim Macho was present for the last Trunkey rounds. Jim catered breakfast and presented Don with a “Certificate of Gratitude” for all of his teaching efforts.

MEDICAL STUDENTS

Shortly after Blaisdell left, the responsibility for the third-year medical student clerkship shifted to Larry Way, chief of Surgery at the VA Hospital. As a result of the decrease in elective cases at SFGH, the number of students assigned to the Surgical Service was cut back, so all the students no longer had rotations to SFGH for their required clerkship. However, thanks to Trunkey’s dynamism and an excellent surgical staff, this service continued to be a popular rotation for the students.

OPERATING ROOM & OPERATIVE CASES

The surgical suite consisted of eight operating rooms arranged in a square around a central core containing supplies. Unfortunately, the main supply area for the operating room (OR) was located in the basement. Although this system was fashionable in the 1970s, when the hospital was designed, it was inherently inefficient. It was fine for elective surgery, but created unavoidable delays when unanticipated equipment or supplies were needed that were not stored in the central core area. Room 1 was kept heated and constantly available for major trauma cases. For practical purposes, only seven rooms—plus two cystoscopy rooms—were available for elective and urgent cases.

Barrie Fairley, a distinguished anesthesiologist and pioneering intensivist, directed the Department of Anesthesia. He was a Canadian gentleman—a superb clinician and an excellent clinical physiologist. He also served in the important position as UCSF associate dean for the SFGH campus during most of this period.

Marge Matone was the Head Nurse in the OR. She was energetic, highly experienced, bright, and tough. She had joined the OR staff right out of Nursing School in 1954. She had a difficult, stressful job, as the volume and complexity of surgery was continually increasing and resources were extremely limited. SFGH

lost an excellent nursing leader when she retired in 1988, after 25 years of OR leadership—but she was a lot happier in her second career as a travel agent.



Sheldon & Marge Mattone

Clinical Cases: The incidence of trauma laparotomies dropped progressively during this period as diagnostic screening became much more sophisticated. Before the popularization of CT evaluation by Trunkey, peritoneal lavage, an extremely sensitive means of assessment that could pick up small quantities of blood, was in vogue. Moreover, Blaisdell had been aggressive in his approach to trauma and had the philosophy that laparotomy was an extension of the physical exam. “Patients don’t die from a negative laparotomy—they die from missed abdominal injury.” This was given credence by Trunkey’s 1979 study with John West, and Bob Lim, published in the *Archives of Surgery*.

There had been a 30% negative laparotomy rate for stab wounds, but with the introduction of CT evaluation, missed injuries became rare. In addition, it was found that minor liver and splenic lacerations could be managed conservatively if followed closely.

The introduction of H-2 blockers in the late 1970s resulted in a dramatic reduction in the number of gastric operations for peptic ulcer disease in the 1980s. The surgical staff flirted with the newly described highly selective vagotomy in the late 1970s and early 1980s, but by 1986, most patients with GI bleeding due to peptic ulcer were being managed medically. Simple plication was used for most patients with perforated duodenal ulcers. The Medical Service’s interest in endoscopic control of GI bleeding resulted in a conservative approach regarding referral of these patients for operation.

GI bleeding due to variceal hemorrhage consumed extensive hospital and ICU resources. Patients on the Medical Service could receive 20 or more units of blood before they were referred to the Surgery Service. Two young gastroenterologists, John Cello and Jim Grendel, working with Rich Crass and Trunkey began to prospectively study the management of these difficult patients (see Research Section). The recruitment of patients for randomized studies meant that sometimes two or more ICU beds would be occupied by Child’s C cirrhotic patients recuperating from portacaval shunts.

End-to-side portacaval shunts were used initially, until Trunkey became enamored with mesocaval shunts. Initially, he used a 30-mm Dacron graft, which was “like suturing concrete (the graft) to tissue paper (the superior mesenteric vein).” Later, he found that the harvested internal jugular vein was a much better choice as the conduit. The Warren distal splenorenal shunt was utilized for a brief period after it was described, but the improvements in endoscopic sclerotherapy, and the subsequent development of esophageal banding and the transjugular intrahepatic portacaval shunt (TIPS) procedure, essentially ended operative portacaval shunting at SFGH.

Trunkey’s special interest in portal hypertension resulted in his belief that the Leveen shunt and its modification, the Denver Shunt, should be used for the management of intractable ascites. Many of the devices were placed in alcoholic patients with end-stage liver disease and yielded mixed results. The most devastating complication of this operation was disseminated intravascular coagulation (DIC) resulting from the rapid infusion of ascitic fluid directly into the circulation.

The large immigration from China and Southeast Asia in the 1970s and 1980s resulted in a steady increase in two diseases, Oriental cholangiohepatitis and hepatoma. Cholangiohepatitis caused massive dilation of the extrahepatic bile ducts that was associated with multiple intrahepatic duct strictures. The ducts were filled with stones and sludge, which had the consistency of mud. The etiology of this disease was unclear. Cholecystectomy and a wide side-to-side choledochoduodenostomy proved to be the optimal operation for these patients. The wide anastomosis allowed John Cello, a master endoscopist, to enter the duct with a pediatric gastroscope and wash out soft stones in the event of a recurrence.

Bob Lim was expert in the management of liver disease. He received referrals for almost all of the patients with hepatoma as well as cholangiohepatitis that occurred in the Chinese community. In addition, Lim did most of the endocrine surgery as well—thyroidectomies, parathyroidectomies, and adrenalectomies.

Lim provided vascular access for hemodialysis. Autologous arteriovenous fistula shunts (when possible), bovine carotid artery grafts, and later polytetrafluoroethylene (PTFE) grafts, were the types of access used. Unfortunately, the late patency rates of the grafts were poor, which resulted in a lot of suffering for the patients and a lot of time, energy, and frustration for Bob and the residents, thrombectomizing or redoing occluded grafts and removing infected ones.

Aside from the vascular access cases, the Vascular Service never developed into a high-volume enterprise. About 60 to 80 major vascular cases were done each year, including 10 to 12 carotid procedures.

Art Thomas covered the Thoracic practice, which included pulmonary and esophageal malignancy cases, bleb resections, and pleurodesis for spontaneous pneumothorax. Occasionally he treated a patient who had pulmonary hemorrhage from tuberculosis, esophageal stricture due to lye ingestion, or chronic pericardial effusion, usually due to uremia. Thomas was also interested in gastroesophageal reflux, and he favored the Hill repair for sliding hiatus hernia. The operations were challenging, and Art’s vast experience and unique sense of humor added greatly to the residents’ enjoyment of the cases.

Hand surgery constituted a high-volume surgical activity. At that time, all the injuries were treated immediately. The wounds were irrigated and closed in the ER and the patients placed on the operating schedule. The low priority of the cases, as compared with the gunshot wounds and stab wounds, meant that the operations were often done in the middle of the night, placing a lot of stress on the hand surgeons who were also taking regular trauma call. Bill Schechter and Bob Markison did virtually all of the cases with the junior surgical residents.

Emergency room thoracotomy for resuscitation became a rite of passage during this period, and residents were warmly congratulated after their first experience. In 1979, Chip Baker—a resident who later became Trauma director at the University of North Carolina, Chapel Hill, under George Sheldon—reviewed the SFGH experience with 186 emergency thoracotomies and reported an overall survival rate of 20%. The number of emergency thoracotomies skyrocketed after that, exposing many residents and nurses to blood in relatively uncontrolled situations—this at a time when the number of HIV-infected patients was also rising dramatically. Bill Schechter arranged for operating-room gowns and facemasks to be stocked in the ER. This process took an incredible six months to work its way through the hospital bureaucracy.

RESEARCH

During Trunkey's tenure, clinical research came to be emphasized, rather than laboratory or bench research. Rich Crass developed a close working relationship with two young gastroenterologists on the faculty—John Cello and Jim Grendel. At this time, there were many alcoholics with portal hypertension; patients with bleeding esophageal varices “were dying like flies.”

Sugiura of Japan had recently described an operation that involved devascularization of the stomach and division of the esophagus. The esophagus was then re-anastomosed, separating the azygous from the portal venous system and thereby decompressing and controlling hemorrhage from the esophageal varices. The end-to-end anastomosis (EEA) stapler had just been invented. Crass came up with the idea of simplifying the surgical operation, using the EEA stapler to simultaneously divide and staple the esophagus through a simple gastrotomy. Unfortunately, the first 6 patients died of infected ascites, and the study was abandoned.

Crass and Trunkey next collaborated with Cello and Grendel on a randomized study comparing portacaval shunt surgery with sclerotherapy. The mortality rate was 50% in both groups but the cost and length of hospitalization was reduced in the sclerotherapy group in early follow-up. However, in long-term follow-up, there were more treatment failures in the sclerotherapy group and the costs of surgery versus that for multiple hospital admissions for repeat sclerotherapy equalized. This study resulted in two publications in the *New England Journal of Medicine*. Nonetheless, endoscopic therapy basically replaced the portacaval shunt as the primary treatment for bleeding esophageal varices at San Francisco General.

Crass and Trunkey also collaborated with Mike Federle and Brooke Jeffreys—two outstanding radiologists. They pioneered the use of the CT scan as a “radiologic laparotomy,” paving the way for the revolutionary concept of nonoperative treatment of selected injuries to the liver and spleen. Even within the Surgery Department, CT remained controversial. Tony Meyer advised nonoperative management of selected patients with CT evidence of liver injury

at a teaching conference, and Lewis and Thomas vigorously attacked him. Trunkey supported Meyer, and they subsequently published a series of successful cases of nonoperative management. This concept became the standard of care for specific types of liver injuries a decade later. Between 1965 and 1981, when DPL was used, it proved to be too sensitive, as 25% or more laparotomies were “nontherapeutic.” The introduction of CT, as promoted widely by Trunkey, changed this situation and constituted a major advancement in trauma care.

In regard to bench research, George Sheldon succeeded Blaisdell as chief of the Physiological Research Facility located on the third and fourth floors of the Pathology Building, which contained wet labs and the animal operating facility. Carol Miller, whose laboratory was actively involved in studies of the immunology of trauma, was recruited to the University of Massachusetts and left SFGH in 1979. Charles Graziano, her husband, who worked in clotting research with Bob Lim, left with her. The laboratory was then given to one of the Neurology faculty.

George Sheldon continued to lead the Program Project Grant in Trauma. However, because of the loss of several critical investigators, the grant was not renewed in 1981. Sheldon trained many research fellows, several of whom have become distinguished professors in their own right. He had organized the Nutritional Support Service and was actively involved in developing this new field. He published papers on the nutritional and metabolic needs of trauma patients. His research also involved blood and blood products, and he was head of the Research Committee of Irwin Memorial Blood Bank.

Trunkey gave up his SFGH lab in order to develop a collaborative arrangement with Ramachandran at UCSF, who was an adrenal specialist studying secretion screening coupling.

Frank Lewis, whose interests were in Critical Care, was actively involved in measuring lung water in critically ill trauma patients by using a thermal dye technique that he had developed. His sheep experiments demonstrated that sepsis resulted in diffuse lung permeability, and that crystalloid resuscitation was more effective than colloid resuscitation.

NURSING

As a result of the hiring and wage freezes and staffing cutbacks that followed the passage of Proposition 13, nursing staffing reached a critical point. In 1979, the nurses went out on strike. This dispute was not resolved until negotiations with the County Board of Supervisors resulted in an agreement to ensure that patient–nurse ratios would not exceed eight to one. Admissions would be stopped when the number of patients threatened to exceed this level.

The immediate result was to temporarily stop all elective admissions. At one point, the emergency room was closed to all but cases of penetrating trauma. The San Francisco Supervisors were forced to allow the hiring of more nurses when eleven local hospitals refused to accept a medically indigent patient with tearing chest pain due to a presumed aortic dissection.

Nonetheless, during this entire period, intermittent nursing shortages continued to compromise patient care and stop the admission of elective cases, which led to wild fluctuation in number of elective operations.

FINANCES

Finances were a major problem for Trunkey and undoubtedly gave him more headaches than any other aspect of the Department. At the time Blaisdell left SFGH, the Surgical Department had four University FTEs and one City salary—Muriel Steele’s for running the Outpatient Clinics. Blaisdell’s FTE (salaried position) was lost with his departure, as was another when Sheldon left in 1984. This meant that Surgery was thrown more and more on its own resources, and the billing machinery had to become more efficient.

Art Thomas and Bob Markison convinced Trunkey to buy an expensive computer system in order to facilitate billing and maximize income. Unfortunately, this system proved to be a dud, and the Department ended up paying for it for years. As the result, it constituted a drain on finances and compromised rather than helped an increasing financial problem.

One partial solution was to utilize the Burn Foundation to handle research grants and Department income. This resulted in a significant decrease in the Medical School tax on grants and income. However, something was not right. Despite an increasing clinical effort, income did not increase as it should have. Larceny!

The UC-employed Department administrator, Bob Steele—who was not related to Muriel Steele—was responsible. Bob was an affable, slightly rotund man with a ready smile and expensive habits. He wore a Rolex watch, drove a Porsche, and allegedly supported his lifestyle with a second job with Amway. Bob was often the subject of faculty criticism at the weekly faculty meetings—this activity seems to be a favorite faculty sport!—but otherwise he seemed to be doing his work in a quiet way.

By 1985, it had become apparent that something was drastically wrong. The University performed an audit, and Bob was arrested and later convicted of embezzling what probably amounted to hundreds of thousands of dollars of Department funds. The exact amount was never determined. This crime had a major effect on UCSF financial policy, resulting in regular stringent oversight and auditing of all departments.

NATIONAL TRAUMA DEVELOPMENT

It was during this period that Donald Trunkey’s activities became international in scope. He, more than any other person, was responsible for the development of Trauma Programs throughout the United States. His review comparing two counties, San Francisco and Orange County—the former with a well-organized trauma system, the latter with none—received national attention. A review and re-review by outside experts showed that at least 25% of the trauma deaths in Orange County, as opposed to a mere 1% in San Francisco, were preventable. When reviews were carried out in any area without organized trauma care, similar statistics prevailed.

A County survey followed, which showed that, in the nine counties surrounding San Francisco, each year there were 7 to 10 patients dying of simple injuries that went unrecognized or were treated too late. A news reporter asked why Marin County, which was the worst, had no trauma centers. Trunkey’s much quoted response was, “That was their attempt at population control.”

During the period 1982-1986, Trunkey was chair of the American College of Surgeons Committee on Trauma (COT). Under his leadership, the

Committee promoted Advanced Trauma Life Support (ATLS) for all physicians involved in trauma and emergency work. This trauma resuscitation program had been developed in Nebraska under the leadership of Skip Collicott. ATLS was adopted as a requirement for physicians by the military and by nearly all of the major emergency rooms in the Country, thanks to COT's promotion effort.

As was often the case in his career, Trunkey pushed some things that he believed in further than the political process would accept. In September 1983, he had a brief meeting with Rollo Hanlon, director of the American College of Surgeons (ACS), in which he espoused the importance of developing criteria for and then certifying the trauma programs that were developing in hospitals throughout the United States. Assuming that agreement had been reached, his committee started certifying trauma programs. The requirements were such that few programs passed and a political outcry went up. Hanlon expressed outrage that the ACS Board of Regents had been bypassed. Trunkey was asked to appear before the Executive Committee of the Board, accept a tongue-lashing, and discontinue his certification program. The certification process was turned over to the individual states and later the COT was allowed to verify that the state approved programs were following the accepted ACS guidelines. As a result of Trunkey's ministrations, some 1,100 trauma centers were certified in the United States.

At the same September meeting, Trunkey attempted to get the Regents to assume responsibility for a National Trauma Registry. Hanlon turned this proposal down, and it was only in 1999 that this became a reality.

Trunkey also became an advocate of disaster planning, and he proposed that SFGH assume the role of a regional resource. His initial effort was not received favorably. The effort involved a major bus accident in Martinez, California in 1976, in which 29 of 51 children were killed and 22 were injured, many trapped in the overturned vehicle. Trunkey sent a team to the accident site and Frank Lewis carried out triage. Bill Schechter, a resident at the time, hand ventilated a critically injured girl during the ambulance transfer to SFGH. Trunkey was called to a hearing before the San Francisco Board of Supervisors, who objected to using SFGH resources for an accident in another county. The head of San Francisco's Emergency Care Committee, Marguerite Warren, an imposing woman with great political power, defended Trunkey, and the Board sheepishly agreed with his action.

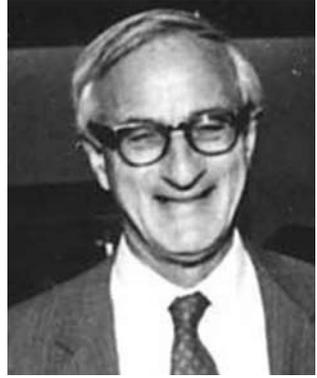
The Trauma Foundation was a major force in trauma prevention. As noted in the previous chapter, it was Trunkey who offered Andrew and Kay McGuire space in Blaisdell's old laboratory on the third floor above the old Mission Emergency to house their Foundation. Shortly thereafter, Andy was appointed a MacArthur Fellow—a prestigious scholarship that provided support for his salary and for his activities in burn prevention. It provided tax-free funding for a full five years.

POLITICAL RELATIONSHIPS

This was an extremely turbulent and unstable period for SFGH. Charles Windsor, the first well-qualified administrator since the institution of Medicare, resigned in 1979, when the City's chief administrative officer (CAO), Roger Boas, interfered with his internal decisions regarding how to manage the

cutbacks necessitated by Proposition 13. Walter Coulson's resignation as medical director and associate dean immediately followed, when Boas tried to put a restriction on blood utilization and the purchase of xray film.

Boas was a prominent former auto dealer in San Francisco with no prior medical or administrative experience. He was a callous, ruthless individual who rode roughshod over all the City-County agencies under his control—and they included the Department of Public Health and the County Hospital. He took office in 1977 with a plan to close down the County Hospital, or at least distribute all its paying patients to the private sector. It was during this period that he advocated that the ambulances take all paying trauma patients to a private hospital. At a public meeting, Trunkey asked, "What are we supposed to do, carry out financial triage in the ambulance?"



The attempt to redistribute trauma care immediately broke down. Following admission of trauma cases to private hospitals, the staff proved disinterested in or incapable of handling them. As the result of several well-publicized catastrophes, the attempt was quickly aborted. Fortunately for everyone, Boas was caught in a scandal involving teenage prostitutes and he was forced out of office. Responsibility for the hospital was transferred to the Mayor, as it was felt that—because he was an elected official—he would be more responsive to the needs of the patients.

During Trunkey's eight-year tenure, he had to deal with two directors of Public Health, six hospital directors, and two Nursing directors. This turnover obviously resulted in an unstable administrative environment. During this period, Trunkey was called on frequently to defend the hospital's budget before the Board of Supervisors and to mount a constant lobbying effort to avoid financial cutbacks in the hospital budget.

Relations with UCSF were mixed. The chair of Surgery, Paul Ebert, left SFGH alone. He did not interfere, nor did he supply any resources.

The Dean, during much of this period, was Rudy Schmidt. His relationship with Trunkey was hostile, to say the least. Trunkey's forthright manner deeply offended him and, when Ebert retired, Schmidt informed the Search Committee for the new UCSF chair of Surgery that Trunkey was not to be considered under any circumstances.

ANECDOTES

Office Accoutrements

The first thing visible on entering Don Trunkey's office were two xrays illuminated by the xray view box. The first was a KUB demonstrating a huge dildo in the left colon, extending all the way up to the splenic flexure. The second was a skull film xray depicting a large knife within the cranial vault. On the wall was a plaque prominently displaying every known type of bullet. A large spray can sat on his desk facing his visitors, emblazoned with the words "Bullshit Repellent." Faculty meetings were held in Don's office with chairs

positioned in a semi-circle, facing his desk. On the wall behind Don, in full view of the faculty, was a picture of a goofy-looking bird with the accompanying phrase: “It’s hard to soar like an eagle when you’re surrounded by Turkeys!” (...as told by James Macho and Arthur Thomas)

ET Call Home

At about this time, there was a popular movie entitled “ET” that was about an extraterrestrial being who arrives on earth, befriends a little boy and his family, and desperately tries to make contact with his home planet. Tony Meyer—ever the practical joker—obtained two ET posters with the slogan, “ET Phone Home,” which were used to market the film. He pasted a picture of Don Trunkey’s head over the head of ET and changed the lettering to read “DT Phone Home!” He placed one full-size poster in Don’s office and gave the second one to Jane Trunkey. Don rolled in one afternoon from the airport and opened the door of his office, only to be faced with a full-length poster reading “DT Phone Home!” He was not amused. Shortly thereafter, the poster disappeared. However, when he returned home that evening, he found an identical poster hanging in his home! He did not have as much success in disposing of the second poster. (...as told by Tony Meyer)

World Traveler

As in all families, the foibles of the “pater familias” are the subject of great jest and ridicule. Don’s extensive travel schedule was the target in his case. He maintained both “his personal and the departmental mystique” through his innumerable national and international speaking engagements. This frequency of travel became the source of much discussion and mirth among the faculty, much to Don’s annoyance. He always took his share of trauma call, but he was usually away if he wasn’t on call. Don would frequently hold staff meetings with a suitcase next to his desk. When he was chief of Surgery, many of the staff had the feeling that everyone else in the world saw more of him than they did. The chief residents had a map of the United States posted in their call room and would place a push pin in each city that Trunkey visited. The map was covered with pins. (...as told by James Macho)

An Affluent Office

When Robert Walton arrived as SFGH chief of Plastic Surgery, Don Trunkey showed him around and then took him to his “temporary office,” which was a janitor’s closet on the third floor. “Don promised me a larger office ‘soon.’ I remained in my 6 x 8-foot cell for the next four years. I was actually offered a larger office in the third year, but I gave it to Juris Bunkis as part of his recruitment offer. It is difficult to recruit to a janitor’s closet.”

Hot Times

Initially, Don Trunkey and George Sheldon lived across the street from one another in Hillsborough. Don and Jane had rented a home that had been the former Finland Consulate—it had a sauna in the back yard. George and Ruth enjoyed using the sauna, but created a local scandal when the neighbors noted them crossing the street in their bathrobes in the evening. (...as told by Arthur Thomas)

Party Time

When the Surgery Department was solvent, black tie dinners were held at Trader Vic's in San Francisco on the occasion of the graduation of chief residents or the departure of faculty members for new jobs. Art Thomas, who was in charge of these events, would organize the rotation of tables at each course so that the maximum amount of social interaction occurred. This rotation was logistically difficult, as the guests would be drinking Trader Vic's potent Stinger and Mai Tai from group punch bowls, so they would have no way of measuring the quantity of alcohol consumed until the clinical signs of alcohol intoxication became manifest. At each rotation, the guests would have to take their own straws for insertion into the next punch bowl. By the third course, navigation between the tables became somewhat of a challenge. (...as told by Bill Schecter)



Don and Jane Trunkey Enjoy

"Uncle Art"

Art Thomas developed a close personal relationship with many residents. He loved to sit in his office with the senior residents, sometimes for hours, discussing cases and drinking warm Diet Coke. He kept a case of Diet Coke in the office so he was always well supplied. Football was a quasi-religious experience for Art, and he worshipped at Candlestick Park where he maintained season tickets. Many of the residents joined him for a weekend brunch at his lovely home in Hillsborough, following which they would all repair to Candlestick Park to watch Joe Montana and the 49ers continue their march to another Super Bowl appearance. (...as told by James Macho)

A Magnet for Nurses

Frank Lewis was an absolute magnet for nurses. He attracted the attention and affection of many of the most beautiful and intelligent nurses in the hospital. All of his old girlfriends remained remarkably devoted to him throughout the years. (...as told by Bill Blaisdell).



*Janet Christensen, Frank Lewis,
Donna D'Acuti, Phyllis Harding (top)*

Married To a Wonderful Guy

Shortly after George Sheldon and Tony Meyer moved to the University of North Carolina (UNC) at Chapel Hill in 1984, Don Trunkey was at a national meeting and met a UNC burn nurse who worked with Tony. Don casually asked if she had met Tony's wife. "Why, no," she replied. "You should," said Trunkey, "he's a wonderful guy." This information, though false, would have hardly raised an eyebrow in San Francisco, but was scandalous news in North Carolina. When the nurse returned home, she mentioned that she had met Trunkey. "All right," said Tony, "what did he say about me?" It took 20 minutes to pry the story out of her; they had a good laugh when Tony explained Don's sense of humor. (...as told by Tony Meyer)

Revenge Is Mine

Two years later, Tony got his revenge when Don moved to become chair at the University of Oregon. Tony sent him an anonymous one-year's gift subscription to *The Advocate*, a national journal for gay men and lesbians, and addressed it to Trunkey at the Department of Surgery, University of Oregon Health Sciences Center. Shortly after passing through the mailroom and the hands of several secretaries, the whole hospital knew of the subscription!

Television Star

At the time, there was a television show called *Lifeline* that filmed various prominent doctors performing acts of "daring-do" and featured one doctor each week. Surgeons were usually the featured subjects, and inevitably Trunkey was the hero of one of the shows. Unfortunately, work in the OR was uncharacteristically slow during the several days that the camera team spent following him around. They showed a segment of Trunkey treating a fracture and another of him participating in resuscitation in the burn unit, chewing out a clinically immature resident. One particularly memorable segment was a full-face closeup of Trunkey leaning over an ICU patient speaking words of encouragement, explaining to the patient that he was going to evaluate his breathing and that he would remove his endotracheal tube. This segment enraged some anesthesiology-ICU doctors because Trunkey never personally evaluated the airway and never personally removed a patient's endotracheal tube. (...as told by Arthur Thomas)

Survival of the Fittest

Don Trunkey is a guy who, if you threw 100 people overboard, he would be the first to rise to the surface. (...as told by Art Thomas)

Early Bird

Walking to work every day from my home on Potrero Hill, I would see Don's Mazda sports car parked in the Trauma Attending emergency parking spot opposite the entrance to the emergency room. The license plate read "Trauma 1." (...as told by Bill Schechter)

A Nobel Hit

In 1982, Joe Murray—Nobel Laureate, organ transplant pioneer, and Harvard Medical School professor of Surgery—was visiting professor in Plastic Surgery at UCSF. I was pleased to bring him to SFGH in my sparkling new Volvo for a tour and rounds with the residents. We drove into the parking lot and pulled up alongside Don Trunkey's car. Joe flung his door open, whacking the side of Don's car and putting a visible dent in the side of my new car's door. He bent down, did a once over, closed the door and walked away. I was horrified! Not only had he put an obviously visible dent on the side of Don's car with my car's paint inscription, but he had permanently marred my NEW car. Murray never mentioned the incident. I bit my tongue, swallowed my pride and accepted Joe Murray's baptism of my new car. Don Trunkey never noticed and I never told him. I was very fortunate because Don came to work in the dark and went home in the dark (...as told by Robert Walton)

CASES*Mellow Yellow*

In the spring of 1979, after several days of feeling weak and tired, Trunkey turned yellow, and hepatitis was diagnosed. He was still taking call that night when Schecter, then chief resident, notified him that he was taking an elderly man with a leaking abdominal aortic aneurysm to the operating room. Trunkey dutifully appeared and the operation went well. Immediately following the case, Don took an extended vacation to Washington to recover from the disease. This was an example of Don Trunkey's unsurpassed commitment to his patients, placing their interests above his own. (...as told by Bill Schecter)

A Breathtaking Experience

A 19-year-old woman was struck by a car and admitted to the emergency room, stable but with opacification of the right hemithorax. The residents initiated positive-pressure breathing treatment, which resulted in a continuous major air leak and the need for endotracheal intubation. Bronchoscopy in the operating room disclosed a right main stem bronchus transection. Schecter, uncomfortable with the problem, called Trunkey, who came in and provided support while Schecter and his chief resident repaired the injury. It was an example of how Trunkey provided support and guidance so that his junior faculty and residents could develop their clinical skills. The young woman did well and went on to employment as a flight attendant. (...as told by Bill Schecter)

Lifeline Come Back

Lifeline was a television series in which the camera followed a specific surgeon's activities. They did an episode on Paul Ebert and neurosurgeon Charles Wilson, and Don Trunkey's installment was the third. A young prostitute, who had been shot multiple times by her pimp, was admitted to Mission Emergency in profound shock, resuscitated and taken immediately to surgery. There was a gunshot wound of her neck and another to her abdomen. Don controlled the bleeding in the abdomen; and the liver, pancreatic, and bowel

injuries were treated successfully. The bullet to the neck had produced quadriplegia from a C-2 spinal cord injury. She was kept alive in the ICU for several days, but there was no spontaneous respiration, so the endotracheal tube was removed and she was allowed to die. This was too much for *Lifeline*, and they came back for an alternative case. This time, Trunkey reduced a dislocated thumb for a six-year-old child in the ER and operated on a popliteal artery injury—“much better cases.”

Following the death of the quadriplegic patient, the family, who had not shown up while she was alive, instituted a lawsuit for \$100 million! The suit was later dropped, as it was decided that the family had no case. The patient's injury was irrevocably lethal.

ACD Arrest

A six-year-old child was struck by a car and admitted to the trauma resuscitation room. The patient was stable and the nurse left the resuscitation bay, leaving the child with an intern who was rotating from another residency program for trauma training. When the child's intravenous solution ran out, the intern grabbed another bag off the shelf and hung it in the place of the empty bag. It was ACD (anticoagulant-citrate-dextrose) solution and, after the child had received 50 ml, he developed cardiac arrest. Trunkey and the chief resident, Rich Carmona, immediately did a left thoracotomy and resuscitated the child. He required heroic measures in the ICU, but eventually recovered. The family was told the reason for the arrest and they instituted a lawsuit against the faculty, alleging brain damage from faulty treatment. The suit was dropped when the University lawyers found out that the child had been documented as mentally impaired before his injury.

A Chilling Experience

Bill Schecter typically would start off every work day with a swim in San Francisco Bay at Aquatic Park. One day in late December, when his alarm went off at 4:45 AM, he stuck his head out of the covers and realized that it was absolutely freezing out. He shut off the alarm and went back to bed. When he arrived at work at 7:15 AM, he was shocked, on making rounds in Mission Emergency, to see one of his friends brought in profoundly hypoxic after suffering a near-drowning event due to hypothermia. Vascular access and endotracheal intubation were accomplished, but with great difficulty because the very fit and strong swimmer was desperately struggling due to hypoxia. Fortunately, after 36 hours of mechanical ventilation, pulmonary function improved and the patient survived.

Seeing Stars

One of the most dramatic and newsworthy cases was the case of Janet Gaynor and Mary Martin—two elderly movie stars who were injured when their taxi was hit by a drunken driver in downtown San Francisco in 1982. Both were severely injured and had multiple fractures. Gaynor was in shock at the time of admission. Frank Lewis



Mary Martin with her savior

supervised the resuscitation and treatment. Mary Martin left the hospital within the week, but Gaynor remained in the ICU and in critical condition for many weeks. She was finally discharged, but she died six months later as an aftermath of her injuries.

Mary Martin, in gratitude to the hospital staff, put on a benefit program for the Trauma Program in the new San Francisco Opera House. She reproduced her flying wire act from Peter Pan and obtained the participation of many Hollywood celebrities for the event. Don Trunkey was featured in several of the short plays and had the distinction of being propositioned by one of the celebrities participating in the show.

Catastrophe at City Hall

The phone in Mission Emergency rang off the hook immediately after the shooting of San Francisco Mayor George Moscone and Supervisor Harvey Milk by ex-Supervisor Dan White in November 1978. The ER immediately paged Trunkey, who was holding Vascular Clinic at Laguna Honda Hospital. Trunkey drove at breakneck speed back to Mission Emergency to discover that both had been declared dead at the scene. White had shot both of them in the chest and then in the head.

A Problem Patient

When Bill Schechter was a senior resident, he was admitted to the SFGH emergency room at 5 AM with right upper-quadrant pain, fever, and leukocytosis. After innumerable tests were done, including a lumbar puncture, John Mills, chief of Infectious Disease, made a working diagnosis of brucellosis. Schechter was sent home on hospital day number four. He remained ill and returned to the hospital 48 hours later with boring back pain, informing Trunkey that he needed “to be treated with sixty cents worth of surgical steel.” After removal of a necrotic, perforated, retrocecal appendix and subsequent drainage of a subfascial wound infection, he made a complete recovery.

However, in future years, whenever a resident presenting a complication was criticized for not getting an attending involved in the care of the patient sooner, Schechter would chime in, “But, I had an attending taking care of me and look what happened.” This remark of course would elicit laughter from all assembled who knew the story. Don Trunkey would turn pink, smile sheepishly, shake his head and say, “Schechter, you’re like an albatross around my neck.” (...as told by Bill Schechter)

ICU Crisis

One night, after Bill Schechter had gotten up at 1 AM to find a bed for a patient, he received another call at 3 AM to tell him that the last ICU bed had been given away. The nursing supervisor asked if she should go “on divert”. As Trunkey had instructed his faculty “never to go on divert,” Schechter told the nursing supervisor that he would come in personally to nurse the next patient, if necessary. An hour later, the nursing supervisor called him on his pledge, as another patient had been admitted to the ICU. Schechter drove into the hospital to find an unfortunate young man with a massively distended abdomen due to malignant ascites from metastatic rhabdomyosarcoma. The patient had arrested on the Medical Service and had just been resuscitated. When asked why this poor patient had been resuscitated, the young medical intern looked up and, with

a straight face, informed Schecter that there was a 2% chance of survival with chemotherapy.

Schecter replied, “Yes, Doctor.” He changed into a scrub suit and nursed the patient until a medical “grown up” arrived in the morning and withdrew support. However, the nurses were offended that Schecter had had the audacity to think that he could competently nurse an ICU patient. They “let it all hang out” in a sensitivity training session. (...as told by Bill Schecter)

Dos Equis

Bill Hoffman, then a fellow in Plastic Surgery, called Schecter about a young man, the son of a minister, who had amputated his own hand. There was an XX tattooed on the hand—the sign of the Devil. Schecter was not enthusiastic about replanting the hand because of his previous experience with a psychiatric patient who would not cooperate with rehabilitation. However, at the urging of his parents, Schecter and Hoffman replanted the hand. The procedure was successful. For years afterward, Schecter received a handwritten Easter card, written with the replanted hand. The lesson he learned from this patient was, “The initial prognosis for either life or function may be incorrect. Every person deserves a chance.” (... as told by Bill Schecter)

Cowboy Don

When Schecter was a young attending, he consulted on a medical patient who had what appeared to be a septic abdomen. The medical resident and intern were hell-bent on doing a diagnostic paracentesis. Schecter had already concluded that the patient needed an exploratory laparotomy and felt that needle aspiration might unnecessarily injure the bowel. Just at that moment, Don Trunkey, not aware of the decision, cruised by the ICU, saw the patient and—without asking anyone—immediately stuck a needle into the patient's abdomen and announced that the patient needed surgery. The enraged medical housestaff complained to Schecter, who broke out laughing and told them, “Don still thinks he's on television.”

A Necessary Conversion to Christianity

A young Gypsy boy sustained a severe head injury in an auto accident, and the whole Gypsy clan descended on the hospital. Several nights later, Schecter received a desperation phone call from his chief resident. A hundred Gypsies had him backed against a wall, threatening him with bodily harm if the patient succumbed to his injury. Schecter went to the hospital—but, at that time, he knew little of the Gypsy culture. In searching for a way to describe the boy's dire situation, he explained that the boy was being held in the hands of Jesus and that Jesus would decide whether or not to take the boy to his breast or return him to the world. To Schecter's amazement, 100 Gypsies in unison raised their hands to the ceiling and shouted, “Jesus, Jesus, he's the man.” All tension immediately lifted, and the meeting broke up. The next day Carol Fink, a psychiatric nurse, met with two leaders of the Gypsy clan. The two gentlemen, who were referred to as Gypsy Kings, observed that Schecter seemed to be a very religious Christian. Carol, who knew that Schecter was Jewish, smiled and asked why they said that. They immediately replied, “Every time we see him, he always talks about Jesus.”

A Jolting Experience

There were always characters who appeared in the emergency room, hoping to be admitted for either feigned or psychosomatic illnesses. One “frequent flyer” was an African American man named Moses, who worked the system for all it was worth. He not only used SFGH, but also the VA and Mount Zion Hospitals as well. Although he manipulated the system, all the nurses and surgical residents viewed him with affection and tolerance. The City ambulance drivers were on to Moses as well. One day, after failing to convince the City paramedics to transport him to SFGH for imagined complaints, Moses faked a cardiac event. For some reason, a private ambulance crew who did not know him was called. When they saw him in an apparent collapse on the street, they immediately applied a defibrillator, which actually did induce cardiac arrest. He was transported to the hospital, but unfortunately did not survive. Moses had finally outsmarted himself.

TRUNKEY’S DEPARTURE

In 1984, George Sheldon and Tony Meyer left to go to the University of North Carolina. Shortly thereafter, the UCSF Department of Surgery underwent a major change. Paul Ebert, the chair at UCSF, announced that he was stepping down to assume the position of director of the American College of Surgeons. Don Trunkey had hoped to compete for the chair of Surgery at UCSF. However, the new Dean, Rudi Schmidt, informed the Search Committee that under no circumstances would Trunkey be selected for this position. Don decided it was time to leave. After looking at chair positions in San Diego, Colorado, and Kentucky, Don accepted the chair at the University of Oregon in 1986, taking Rich Crass with him.

Don’s departure was a major event. A full-page spread appeared in the *San Francisco Chronicle* describing his career. The Department organized a good-bye party at Trader Vic’s and presented Don with an antique clock worth \$4,000. Bill and Gisela Schechter threw a barbecue in honor of Don and Jane at their house in Half Moon Bay with 120 people in attendance. Don’s innumerable friends organized a “roast” for him at Bimbo’s, a famous nightclub on Columbus Street that was attended by a huge crowd of people who loved and admired him.

STAFF MEMBERS’ MEMORIES OF THE TRUNKEY YEARS

Robert Markison recalls...

“There was no SFGH way or Trunkey way.” When Trunkey took over, it was clear that times had changed. “The vertical military pyramid of responsibility was adapted to become a shared responsibility. Don Trunkey understands ‘ensemble’ better than most surgeons ever could. We had the belief that we had ‘taken on the mantle of Guardian of the City’, and that we all shared a deeper social contract and bond. We had entered a dramatic realm beyond the average elective surgical practice. When Don became chief in 1978, he did not ‘take out the blame book’. It was very much ‘forgive and remember’. Don, as a boss, was very much hands off. You could do your own thing as long as you could justify it. The social atmosphere in the Department under Don was warm and relaxed. Despite his big name and reputation, Don was not egotistical, which was both disarming and inspiring.”

Richard Crass recalls...

Trunkey recruited people who were excellent all-around surgeons. He did not go after specialty surgeons, as he felt that the nature of the practice at SFGH was such that you had to be prepared for anything that came in. The atmosphere in the Department was very upbeat. For the young faculty recruits, the job at SFGH was a “dream come true”.

Arthur Thomas recalls...

At a meeting of the American Association for the Surgery of Trauma, Don Trunkey showed up for a total of four hours to discuss one paper. For the remaining days of the meeting, many of the other discussants quoted Trunkey, as if to bask in the reflected glory of his name, despite the fact that he wasn't there. He, in effect, dominated the meeting in absentia.

Don was clearly destined for further leadership positions. He was extremely agile with impromptu speeches. At one dinner for Examiners from the American Board of Surgery, hosted by the Department of Surgery, he publicly introduced, in a most amusing and personal manner, without notes, each of the approximately 50 seated guests.



Father Trunkey

Anthony Meyer recalls...

The County hospital and the people who work there are truly unique. I know of no place that melded people together or developed such an esprit de corps. You could always count on people there not only to do their share, but more than their share. This was the hardest thing about leaving the County and taking the job in North Carolina.

Robert Walton recalls...

Don Trunkey was a great chief. He was a benevolent leader who had a great sense of organization. He inspired all of us. Don encouraged me to pursue the microsurgery initiative at SFGH, and under his guidance and support, we began performing free tissue transfers routinely. Our biggest problem with Don was his incessant traveling.

Bill Blaisdell recalls...

Don Trunkey is larger than life, and one runs out of adjectives describing him. When put before an audience, he is like the greatest actor—he dominates any scene. He is quick on the quip, usually in a humorous vein. On the numerous occasions that we have appeared together, many observers have

drawn the conclusion that he trained me, rather than vice versa. I would like to credit that to my youthful appearance, but I am told that is not so!

In many respects, I feel like his “Daddy.” During his junior years, he reminded me of my teenage boys—always in trouble, but at the same time winning the big game and making me extremely proud and enabling me to bask in his glory.

Had he embarked on a political career—which he actually considered on a number of occasions—he might have reached the highest office in the land. He certainly would have made one of the greatest evangelists this country has ever seen, were he to have pursued that route. Actually, in many respects, he did, as he was and is the “St. Paul of Trauma,” spreading the trauma gospel throughout the world. No one brought the message of the importance of organized trauma programs in saving lives so magnificently. It is probable that he, with his evangelism, has saved more lives than has any other current physician in the United States. Before he so forcibly spoke up, the average preventable death rate from injury in the United States was 25% or more—but when a community organized a trauma program, deaths fell to negligible levels.

No recitation of Don’s accomplishments would be complete without acknowledging his wife, Jane Henry Trunkey. She has been a martyr to the cause, giving Don the freedom to pursue his mission, for he is always on the road. Very few marriages would have stayed intact under Don’s commitment to work and travel. Perhaps this is possible because a little of Trunkey goes a long way!

Bill Schecter recalls...

Don Trunkey's tenure as chief of Surgery at SFGH was marked by great personal success and advancement. During this period, he served as chair of the Committee on Trauma of the ACS and introduced the Advanced Trauma Life Support (ATLS) and the Level I Trauma Center certification program. His promotion of trauma care worldwide has saved countless lives.

He ran his Department like a family and provided friendship and support for both his faculty and his residents. Each fall, Don would host a beach party at his house in Montara for the incoming interns and residents—a wonderful social event. My family particularly enjoyed barbecues on the beach with Don and Jane.

He was an absolutely superb and committed teacher. He exhibited affection and concern for his patients, their families, and the nursing staff, as well as for the faculty and residents. Don is clearly unsurpassed as a leader. When he is around, he makes things happen. Were he to command men in war, he would be out front leading the charge and, provided that he survived, he would win the glorious battle. His infectious enthusiasm knows no bounds. When his way is blocked by a mountain of obstacles, he can stimulate his staff to help clear the way by convincing them that a pile of gold must lie beneath!

I owe Don a tremendous personal debt. His friendship, support, and trust permitted me to return to SFGH from a three-year sojourn overseas, and enabled me to pursue a career in academic surgery.



Trunkey Staff 1983

Trunkey, Thomas, Lewis, Crass, Schecter, Lim, Walton, Sheldon and McAninch

CHIEF RESIDENTS — THE TRUNKEY YEARS

1978-1979

Clark Boren (Buz)
Richard Crass (Rich)
Richard Margules (Rich)
Constantine Mavroudis (Gus)
James Raffa (Jim)
William Schecter (Bill)

1979-1980

Armando Giuliano
Kenneth McIntyre (Ken)
Gregory Misbach (Greg)
Neil Rudo
John Van Speybrock
James Harwood

1980-1981

Bruce Allen
Charles Baker (Chip)
Lawrence Colen (Larry)
Robert Markison (Bob)
Scott Replogle
Edward Yee (Ed)

1981-1982

Milton Brinton
Anthony Meyer (Tony)
Jeffrey Symmonds (Jeff)
Edward Verrier (Ed)
To-Nao Wang
Wendel Wenneker

1982-1983

Robin Bernhoft
Ning Chang
Steve Granelli
William Hoffman (Bill)
Jeannie Thomas
Robert Tranbaugh (Bob)

1983-1984

Verna Gibbs
David Knighton
Donald Nakayama (Don)
Stefanie Jeffrey
Carlos Weber
Michael Wood (Mike)

1984-1985

Richard Carmona (Rich)
John Donohue
Robert Mackersie (Bob)
Scott Merrick
Louis Messina (Lou)
Kay Briggs

1985-1986

Frederick Bongard (Fred)
James Economou (Jim)
Phillip Glick (Phil)
Frank Hanley
Craig Kent
James Macho (Jim)

RESEARCH FELLOWS

- 1978-1979 Susan Briggs (Miller).
Shock research with Trunkey (MGH)
Professor of Surgery MGH
- 1978-1979 Steven Hill (UCSF)
Worked with Frank Lewis
Went into private practice
- 1979-1981 Robert Tranbaugh (UCSF)
Worked with Frank Lewis
Awards: National Residents Research Award
ACS Committee on Trauma award, 1981
Young Investigators Award American Trauma Society, 1981
Best Research Paper American College of Chest Physicians, 1981
Chief Division Cardiac Surgery Beth Israel Medical Center, N.Y.
- 1979-1980 John Alverdy (Univ Illinois)
Nutrition with Sheldon, Professor of Surgery
Univ Illinois faculty
- 1979-1980 James Stone. (Univ Illinois)
Nutrition with Sheldon
Asst Professor Surgery, Stanford
- 1979-1980 Hoon-Sang Chi. (Yonsei University, Seoul, Korea)
Nutrition with Sheldon
Director Yonsei Medical Center
- 1979-1980 Christopher Baker (UCSF)
Immunology with Carol Miller Asst Professor, Yale,
Professor and Trauma Chief, North Carolina.
- 1981-1983 Robert Mackersie (UCSF)
Lung water in shock with Frank Lewis
Asst Professor UCSD, then Professor, Chief Trauma, SFGH
- 1981-1982 Richard Carmona (UCSF)
Shock with Trunkey
U.S. Surgeon General 2002-2007
- 1981-1983 Valerij Selivanov
Nutrition with Sheldon
Case Western Reserve faculty
- 1982-1984 Fred Bongard (UCSF)
Lung water in shock with Frank Lewis
Professor of Surgery, Harbor UCLA Medical Center
- 1982-1983 John Morris (Vanderbilt)
Shock with Trunkey
Chief Trauma, Vanderbilt.
- 1983-1984 Louis Ostrow (U.S. Air Force)
Lung water in shock with Frank Lewis
Awards: Residents Research Award ACS, COT, Region IX
ACS Committee on Trauma research award, 1984
Residents Research Award ACS, COT, 1985
Military Surgeon Air Force
- 1984-1985 Arun Gosain (University of Wisconsin)
Lung water with Frank Lewis
Craniofacial plastic surgeon, University of Wisconsin
- 1985-1987 Nic Nelken (UCSF)
Lung water with Frank Lewis
Vascular surgeon private practice Los Angeles

CHAPTER V

THE FRANK LEWIS YEARS: 1986–1992

Don Trunkey, the chief of Surgery at San Francisco General Hospital (SFGH), indicated in the spring of 1986 that he would leave at the end of June to take the position as chair of Surgery at the University of Oregon. At that time, San Francisco General Hospital (SFGH) had changed markedly from the 1970s. Mission Emergency—the emergency room that had been run by on-site surgery residents through its entire existence—now had full-time emergency physicians. Surgery was now limited to the “east side,” where trauma and surgical problem cases were admitted. The City-wide ambulance system, which was the first responder to all major emergencies during this period, was under financial pressure to maximize its income and was threatened with takeover by the private sector.

Homicides in San Francisco, which had peaked at 149 in fiscal years 1976-1977—were now down to 103 in fiscal years 1986-1987 (*data from the chief medical examiner*). Serious motor vehicle accidents and the associated blunt trauma had declined, as well. This reduction was probably related to a number of factors, which included freeway congestion that slowed traffic, stricter drunk driving laws, and adoption of the requirement for vehicular restraining devices.

Whereas trauma had previously been the principal motivating force in the politics of SFGH, AIDS had now taken over the headlines and dictated the direction of the hospital budget. The City, noted for its liberality, became the focal point of gay activism. As violence in the city decreased and gay activism increased, the care of AIDS patients replaced the hospital’s emphasis on trauma. Under the leadership of Merle Sande, chair of the Department of Medicine at SFGH, the hospital opened an AIDS clinic in 1983—the first of its kind in the United States. In August of the same year, a twelve-bed AIDS ward was opened (Ward 5B, later to move to 5A). This was the first unit in the world dedicated to the management of AIDS patients. The clinic and ward soon became international models. The staff of the ward was largely drawn from the gay community. Many of the nurses who originally worked on the ward died of AIDS before effective treatment became available in 1996. SFGH leadership in the care and management of AIDS patients has continued, SFGH consistently being named the number 1 hospital in the United States for AIDS care by *U.S. News and World Report*.

Hospital administration was tempestuous during the last half of the 1980s and the first part of the 1990s. Directors of Public Health and hospital directors came and went with little notice or impact. There were three different directors of Public Health and four different hospital directors in the period 1986-1992, for example. This led to gross instability of decisions regarding budgets and personnel. In 1991, hospital administration finally stabilized with the appointment of an effective administrator, Richard Cordova.

Administration of the hospital had been complicated by the fact that the chief administrative officer (CAO) of San Francisco had been Roger Boas, to whom the director of Public Health had previously reported. After Boas was

forced from office as a result of a sex scandal, the City Administration was restructured, placing the Department of Public Health under the office of the Mayor. The CAO had been created by a Charter revision in the 1920s and was intended to immunize several City departments from political influence. In effect, now what happened was that the Public Health Department was more heavily politicized and mismanaged than ever before. As an example of this administrative instability, the hospital had been put on JCAH probation in 1985 and would not receive full three-year accreditation until 1992.

The Nursing Service was also in disarray. Lack of strong leadership, constant staffing problems, and overwork due to a shortage of nurses nearly led to a strike in 1988. A strike was averted at the last minute, when the nurses' union won a new contract that tightened the nurse-to-patient ratio in ward staffing. The agreement was to stop elective admissions when the nursing census was down or when the emergency admissions went up. As a result, elective admissions were effectively at the mercy of nursing staffing. If adequate nursing staff was not available, elective surgical cases were delayed or cancelled even more commonly than previously, under a similar 1979 agreement. When budget freezes occurred, elective surgery was discontinued.

The decision regarding Trunkey's replacement was not long in coming. Frank Lewis, the assistant chief of Service under Trunkey, had developed a distinguished record in research and was recognized as a superb teacher and surgeon. As such, he was the obvious candidate to succeed Trunkey as chief of the Surgical Service, and his appointment went through after only a minimal search by the Search Committee.

THE PROFESSOR

Frank Lewis

Frank Lewis was born on February 23, 1941, in Willards, a small town of about 500 persons on Maryland's eastern shore where his father was a general practitioner and the only doctor within a radius of 20 miles. He attended high school in Salisbury, Maryland, where he received an Academic Diploma in 1958. After graduating first in his class in high school, he was accepted to both Harvard and Princeton. He chose Princeton primarily because it was closer to Virginia, where he had a girlfriend, but he soon came to appreciate Princeton for its own sake. He says: "The educational atmosphere there was outstanding and the talent of both the faculty and the students was extraordinary. Princeton has a great tradition of putting its best teachers in the freshman courses, so the quality of teaching in math and physics was



unequaled. I gravitated naturally into a physics major, which I had always enjoyed.”

In 1961, he was graduated cum laude in Physics, but he decided to study medicine rather than physics because he believed it would offer more freedom in future lifestyle choices. He then attended the University of Maryland Medical School, where he came under the influence of “a charismatic professor of Medicine, Ted Woodward,” and he decided to become an internist. He planned to intern elsewhere and then return to the University of Maryland for a medical residency. This plan lasted six months into his mixed medical-surgical internship at SFGH.

When he began his surgical rotation, Lewis came in contact with surgical residents and was amazed at the competence, assurance, and seeming mastery of patient care that they exhibited. John Baldwin was chief resident during most of his surgical rotations. In particular, Baldwin's seemingly comprehensive clinical skills in assessing patients, making quick decisions, and carrying out technical surgical procedures exceeded the abilities of anything Lewis had seen in the medical resident ranks. In addition, he was influenced by Bill Silen, chief of Surgery at SFGH at that time. “The talent level was pretty high and, more importantly, I found that the nature of surgical care was more appropriate to my personality—see a problem, do something about it, and see the results immediately.” Gone was the idea to become an internist. He decided to become a surgeon and was recommended by Silen for the UCSF surgical program.

Lewis was accepted to UCSF, but had to wait until the following year to begin his residency because all slots for the current year had been filled. This left him with a year of nothing to do. He had always been interested in how things worked and wanted to do research. The obvious thing to do, it seemed to him, was to “marry medicine and physics” and get some more training. He chose the Donner Laboratory at UC Berkeley—the “home of medical physics.” This was the place where isotopes were invented and first used in medicine by John Lawrence M.D., brother of Ernest Lawrence, the inventor of the cyclotron. He was accepted into the Ph.D. program at the Berkeley Donner Lab and worked there during the 1966-1967 academic year. That year, plus a second year, 1969-1970—his elective residency year, when he returned to Berkeley to finish his Ph.D. work—gave him the knowledge and background for research he would do later, first in extracorporeal membrane oxygenation (ECMO) and then later in cardiopulmonary physiology. In particular, this work included study of the alterations in heart and lung function as affected by crystalloids and colloids following trauma and sepsis.

During his senior and chief resident years, Lewis became acquainted with Don Hill at Stanford Presbyterian Hospital, who was just beginning to use a membrane oxygenator to support patients with end-stage respiratory failure. Branson, a British engineer, had built the oxygenator—he is the same Branson who, during World War I, modified the synchronized machine gun, originally invented on the Continent, so that it could fire through an airplane propeller without cutting the propeller off. The oxygenator was the first workable membrane oxygenator that was practical for use with patients. It was a huge monstrosity and was very complicated to operate, but it worked. Unfortunately it wasn't very successful in treating the acute respiratory distress syndrome

(ARDS). Lewis and Hill used it for a few patients at SFGH, but it did not reverse the disease.

When Lewis finished his surgical residency, SFGH looked like the place to begin his academic career. He wanted to do further research in ECMO, and SFGH was a good choice because it had plenty of trauma and sepsis cases, and therefore ARDS cases. Because of Lewis's interest in ECMO, Blaisdell had encouraged him to apply for an NIH grant to participate in a multicenter study. He received \$550,000 for a study of ECMO support of patients with ARDS, which included money for his salary. Coming out of his residency with a \$550,000 research grant was "very heady," he says.

An outgrowth of his interest in ECMO became an interest in critical care. As improvements in the management of ARDS developed—particularly the utilization of positive end expiratory pressure—deaths in the acute phase of respiratory failure became a rarity, and the use of ECMO no longer had much to offer. However, Lewis became fascinated with the pathophysiology of ARDS. He recognized this as a microvascular occlusive and capillary permeability problem, not high-pressure pulmonary edema due to overenthusiastic administration of fluids, as many speculated. This realization led him to an interest in measuring lung water and determining the role of crystalloids versus colloids in treating patients with "sick lungs."

Lewis says, "Four men have had great influence on me and have provided qualities which I consciously and unconsciously emulate.

"The first was Ted Woodward, at Maryland, who was a consummate internist and clinician, a remarkable Socratic teacher, and a world's expert on infectious diseases. Both his teaching technique and his clinical acumen were outstanding and were models that I have always thought were close to ideal.

"The second was an extraordinary man, Ephraim Lisansky—Boarded in both psychiatry and internal medicine—who specialized in psychosomatic diseases. He taught us as first-year medical students, and the purpose of his sessions was to demonstrate how to interview and interact with patients. On Saturday mornings, he would interview patients with complex medical and psychosomatic problems in a lecture hall in front of 100 medical students and explore the most intimate details of their problems. He had a unique ability to 'connect' with patients and to relate to them on a meaningful personal level through the interview process. I'm sure it has greatly influenced how I deal with patients throughout my medical career.

"The third was J. Engelbert Dunphy, chair of the Department of Surgery at UCSF from 1964-1976. His conduct of M&M Rounds at UC was one of the most entertaining and valuable teaching experiences I've ever seen. He had a repertoire of moods and responses, from anger to joviality to incredulity and he could always tell a story or joke at the appropriate time to make a point or lighten the circumstance. Most of all was the fact that he emphasized that surgery was a game of precision and detail; that there were right and wrong ways to do things, and that surgical principles were the most important thing to learn and apply. Overriding everything was the necessity for absolute honesty in recognizing and confronting the problem, no matter how hard it might be. It is unfortunate that Dunphy's M&M sessions were not videotaped—they were

considered, by residents and faculty, to be the premier teaching event of the UC residency. Dunphy combined the talents of the master surgeon and Irish politician. He built the strongest Department of Surgery in the country at the time because of his ability to motivate everyone to their greatest potential.

“The fourth, and overall the most important one, was Bill Blaisdell, who was influential in my training. From him I learned that assiduous attention to the patient in the best possible way is your absolute responsibility, and that you should be totally honest about adverse outcomes, complications, and their causes. Later, when I became chief, I tried to inculcate these ethics in residents and students. Blaisdell had a superb understanding of surgical principles and great surgical judgment, as well as superb insight into surgical physiology. He was the first person in the United States to correctly identify the cause of acute respiratory failure to be microvascular in origin, and he has never been appropriately credited for this.”

Frank Lewis was a superb conversationalist, well versed in most issues and always sure of his facts. On occasion, he could be impish. He was an expert on wines, restaurants, and the San Francisco peninsula real estate market. He loved cars, including a powerful Aston Martin—an English make with a big engine and no brakes, which occasionally he would drive from his Hillsborough residence to SFGH. Fortunately, the freeways were less crowded in those days and he survived the car.

He was intellectually very confident. He was hardly ever in doubt about any problem or situation that he had any degree of knowledge about. One of his favorite statements during the course of a conversation—and sometimes designed to bring the issue to closure—was, “in point of fact....” At his 60th birthday celebration, his high school classmates remembered him with affection as the “smartest kid on Maryland’s Eastern Shore.” One of his laboratory fellows, who also trained in general and cardiac surgery at UCSF, says, “There was no doubt that Frank Lewis was the brightest of all the talented surgical attendings.”

ADMINISTRATIVE & PERSONAL STYLE

Lewis’s leadership style differed from his predecessor. Trunkey’s was looser, Lewis’s more structured. Trunkey delegated, while Lewis—who had a great talent for detail and was extremely bright and self confident—was comfortable making decisions on his own and consequently made many determinations without consulting staff. He was characterized by one of the senior members of the staff as doing “a very good job and running a tight ship.”

Lewis traveled, although nowhere near to the extent that Trunkey did. Lewis worked very hard and kept long hours. A member of his staff characterized this, saying, “The door to his office was open and he was working when I left in the evening and when I returned in the morning. It made me feel a little guilty.”

Lewis says, “It would be erroneous to say that, as chief, I had any kind of overall plan for managing the program.” His goal was to turn out safe

surgeons, and he believed that residents should be taught the surgical principles that underlie safe surgery and, at the most, one additional way of doing things. He rejected the idea that it was educationally valuable for residents to see things done in multiple ways—a concept not always in concert with residents’ views. Later, when residents were more experienced, they could try other methods.

Lewis was very suspicious of dogma and brought intellectual rigor and skepticism to medical concepts. He preached to medical students and residents that they should never accept medical “authority” in anything, but should challenge what they were taught and ask for data and logical proof before accepting something.

Initially, relations with the staff in the Department were very collegial. One of the staff said that there was “an incredible spirit of camaraderie and there were a lot of projects going on to change the Department and to modernize it.” Later, as financial issues escalated, laboratory research continued to lag and—as no new research grants were obtained, with the exception of Lewis’s grant from the Centers for Disease Control and Prevention (CDC)—morale began to sag and personality problems developed. Relationships with the University progressively soured. The two people in the Department capable of doing laboratory research felt that they had not been given enough support by Lewis. Without trying to analyze all the reasons, it is fair to say that, by the time Lewis left, morale in the Department was low.

THE STAFF

When Lewis was formally appointed chief, his staff consisted of eight general surgeons—three full professors and five assistant professors: Lewis, Jan Horn, Bob Lim, Jim Macho, Bob Markison, Bill Schecter, and Art Thomas. Mike Hickey was the eighth general surgeon on the staff. He had been hired to run the total parenteral nutrition (TPN)-nutritional support service and worked in the ER, but did not take surgical call. (*For the biographies of Lim, Thomas, Markison and Schecter, see the previous chapters.*)

Jan Horn

Jan Horn was recruited by Don Trunkey, with Lewis's agreement, just before Trunkey left for Oregon. Horn had trained at New York University Medical Center in New York City. After completion of his residency in 1982, he had come to SFGH to work as a research fellow on complement activity with Ira Goldstein. His first paper with Goldstein, on lysosome secretion, was published in 1974, while Horn was a medical student. While working with Goldstein between 1982-1985, he began to take call in the emergency room and in the Surgery Department. His research looked promising to both Trunkey and Lewis, and Horn



indicated that he wanted to stay on at SFGH. Following his appointment in 1986, Trunkey immediately named him director of the Burn Unit.

At the time of his appointment, Horn was well versed in the molecular biology of the inflammatory response syndrome and leukocyte function and was well prepared for laboratory and clinical research.

Horn remains at SFGH and is professor of Clinical Surgery at UCSF. During Lewis's tenure, Horn's research interest consisted of exploring the effects of heat stress on the immunologic function of human neutrophils. In that period, he was co-investigator on a Public Health Service Academic Training Grant in Trauma and Burns, principal investigator of an Academic Senate Research Award from UC, and principal investigator of a UCSF Dean's Research Evaluation and Allocation Committee (REAC) Award.

He is considered an outstanding teacher and mentor by students and residents and has been cited several times for his teaching excellence.

James Macho

Jim Macho was also recruited by Trunkey during his last days at SFGH, but technically he was appointed by Lewis. Macho describes his appointment this way: "During the last several months of my training at UCSF, I had been traveling around the country and had interviewed at Yale, Chicago, Tennessee, and Brooklyn. I went to Trunkey to talk about the different jobs and he said, 'Have you been offered a job here by Frank?' I said no. Trunkey thought I should stay on at the General. Within three or four days, Frank called me into his office and offered me a job, which I accepted."



At the suggestion of Tony Meyer, Macho had done a critical care fellowship at SFGH and Moffitt Hospital during his laboratory year. When he signed on at SFGH, he was interested in doing research in sepsis, bacterial translocation, and multiple organ failure and was assured by Lewis that he would have the time and the funds for laboratory research.

Although Macho's basic science research never got off the ground primarily due to lack of funding and protected time, he made significant contributions to the literature by describing the use of skin staplers for cardiorrhaphy after penetrating injuries to the heart and outlining the indications for emergency room thoracotomy after a review of a large number of cases at SFGH. Jim was facile with computers and helped Lewis with the computerization of the Department. Macho left SFGH in 1991, going to the Mount Zion campus of UCSF as chief of Critical Care. In 2002 he went into private practice.

Mary Margaret Knudson

Peggy Knudson joined the faculty July 1, 1989. She had attended the University of Michigan Medical School and trained at Beth Israel Hospital in Boston and at the University of Michigan, where she was chief resident in surgery during 1981-1982. In 1982-1983, she took a fellowship in pediatric

surgery at Stanford and, at the time of her recruitment to SFGH, was assistant clinical professor at Stanford and associate director of Trauma Services at Stanford University Medical Center.

After arriving at SFGH, she rapidly became a confidante of Lewis as she pursued her career in Trauma. She quickly focused on two areas of trauma care. These were the nonoperative management of liver and spleen injuries and thromboembolism after trauma. She organized retrospective and later prospective studies in these fields. Because of her interest in thromboembolism, she began to apply ultrasound to its diagnosis in the trauma patient.



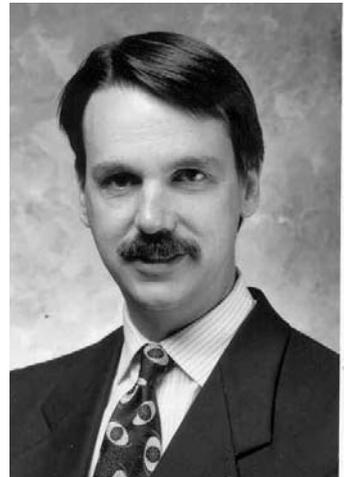
She helped write the initial San Francisco Injury Center grant, awarded by the CDC, which was approved before Lewis left. This grant has received repeated renewals with Knudson as the principal investigator.

In 2001, Knudson was promoted to professor of Surgery at UCSF and she remains at SFGH, where she has developed a superb clinical and academic record. She is known nationally for her extensive publications on thromboembolism and for her work in professional organizations.

Robert C. Mackersie

Bob Mackersie joined the Surgery Department in October 1991, nine months before Lewis left for Henry Ford Hospital. Although Mackersie was in the Department for only a short time while Lewis was chief, they have a history together that goes back to the 1970s.

Mackersie had received a Bachelor of Science degree in Mechanical Engineering at UC Berkeley in 1973, and then had a graduate year in the Department of Engineering Science at UC Berkeley in 1973-1974. Lewis learned that Mackersie, who in 1975 was in his first year of medical school, had expertise in computers. Lewis recruited him that summer to do computer programming and some additional research work in the intensive care unit at SFGH. The following summer, Mackersie again worked with Lewis. Greatly influenced by Lewis, Mackersie decided to become a surgeon. When he was graduated from Michigan, he took his residency training at UCSF. His research years, from 1981-1983, were spent in Lewis's laboratory, where he studied pulmonary physiology and lung water.



Mackersie, after completing his residency in 1985, joined the Trauma Program at UC San Diego, working with Steve Shackford and Brent Eastman. He remained there until he was recruited back to SFGH by Lewis in October 1991 as chief of the Trauma Service.

In 2007, Mackerzie is the principal project investigator for the Trauma, Lung Injury Section of the San Francisco Injury Center CDC grant. He is also principal investigator for the Academic Fellowship Grant in Violence Prevention, sponsored by the California Wellness Foundation.

Arthur Thomas

Art Thomas remained a favorite of the residents, who enjoyed his informal teaching sessions and the exposure to thoracic surgery that he provided.

He remained on the staff until he retired in 2002. At that time, a boisterous party was held for him at Trader Vic's in Emeryville, with many of his residents and UCSF faculty participating. (*For Thomas's biography, see Chapter III.*)

Robert Markison

Bob Markison's biography has previously been given. Bob continued his special interest in hand surgery and made the decision to enter private practice several years into Lewis's tenure at SFGH. (*For Markison's biography, see Chapter IV.*)

Michael Hickey

Mike Hickey completed his training in General Surgery at the University of Texas, Houston, under Stanley Dudrick, the founder of intravenous nutrition. He then went into private practice for several years before joining the faculty at SFGH. In addition to his work in the emergency room, Mike reinvigorated the Nutritional Support Service, which had been established by George Sheldon in the early 1970s. Hickey continued to run the Nutrition Support service and attend in Mission Emergency until 1999, when he made the decision to return to Texas and enter private practice.



Robert Lim

Bob Lim's biography appears earlier in this volume (*see Chapter III*), but he was such an integral part of the service that he deserves additional emphasis. He did most of the elective vascular surgery and much of the technically demanding surgery, such as parathyroidectomies. He pioneered in vascular access surgery for dialysis and remained interested in this field, which was so often frustrating and repetitive because of thrombosis. His interest and devotion was such that the nephrologists provided him special funding that he used to support his research. The nephrologists believed he was the most skilled surgeon they had encountered in the UC system, and they were not interested in having anyone else do their cases.

Lim also had a large referral practice from the Chinese community, many of whom were patients with liver tumors, which seemed epidemic in recent immigrants from China. Because of his surgical skill, he enjoyed nearly a monopoly on tumor resectional surgery in the Chinese community.

His departure in 1989 to go to Moffitt Hospital at UCSF was a significant loss to the SFGH Surgical Service. He has been described as "the heart and soul of the County program." In addition, when he left, he took a University FTE with him, leaving the Department only one—Dr. Lewis's. His

leaving occurred in part because of a dispute with Lewis over the funds that Lim was receiving from the Department of Medicine. Because of budgetary problems, Lewis insisted that the funds he received from Medicine be turned over to the Surgery Department. This left Lim with two alternatives, neither of which he liked: either continue to do all the vascular access procedures but give up his research funding from Medicine, or insist that the other members of the Department share the chore with him. He resolved the issue by moving to UC when he was offered the chance perform the liver resectional surgery for the University Transplantation Service.

After being treated for a malignancy, of which there has been no evidence of recurrence, Lim retired in 2000. Lim was universally loved by all those who came in contact with him, from janitor to hospital director.

SPECIALTY SURGICAL STAFF MEMBERS

Vascular Surgery

Loie Sauer, who had a vascular fellowship at UCSF, was the vascular attending for two years (1989-1991). She went into private practice in Santa Rosa, where she is married to a vintner and has a wonderful family.

Nicholas Nelken, another UCSF graduate, was recruited as a general and vascular Surgeon in 1991. He had done four years of successful basic science research at the CVRI just before he came to SFGH, where he remained for three years. He appeared to have excellent potential as an academic surgeon, but was torn between the laboratory and clinical practice. He eventually opted for private practice.

Plastic Surgery

Ron Barton was chief of Plastic and Reconstructive Surgery when Lewis became chief of Surgery in 1986. Barton left in 1988 to become professor at Vanderbilt and chief of Plastic Surgery at the VA Hospital in Nashville, Tennessee.

Phil Trabulsy replaced Barton and then moved to the University of Vermont in 1994. He was a spectacular reconstructive surgeon. Unfortunately he developed occupationally acquired HCV infection shortly after arriving in Vermont (probably acquired at SFGH) and elected to withdraw from operative surgical practice. He is currently practicing sports medicine at the University of Vermont.

Urology

Jack McAninch, appointed chief of Urology at SFGH in 1977, remained at SFGH as chief of Urology and professor of Surgery at UCSF. He has had a very distinguished career, has published over three hundred papers and book chapters, and is a Regent of the American College of Surgeons.

Neurosurgery

Lawrence Pitts continued as chief of Neurosurgery at SFGH during this entire period. He was a graduate of the UCSF training program, served as

assistant chief of Neurosurgery at SFGH under Julian Hoff, and succeeded Hoff as chief in 1979, when Hoff moved to the University of Michigan. Pitts continued as chief of Neurosurgery, only giving up his position at SFGH in 1995 when his practice at UC was occupying him completely.

Orthopedics

Lorraine Day was chief of Orthopedics from 1980-1988. On completion of her residency at UCSF in 1977, she served as assistant chief under Ted Bovill after Michael Chapman moved to UC Davis. When Bovill retired in 1980, she became chief of service. She was extremely active in pointing out the dangers that AIDS presented for surgeons and promoted the use of a “space suit” for operations on AIDS patients. She married a movie producer, moved to Palm Springs, and retired from the practice of surgery in 1989. Guy Paiement was appointed chief of Orthopedics in 1989, following Day's retirement.

Otolaryngology

Thomas Wild was chief of ENT from 1979-1989. He was succeeded by Thomas Tami who served from 1989-1992.

STAFF ORGANIZATION

Lewis continued the Trunkey model of staff organization. The daily census for the entire service was normally between 80 and 110 patients. The staff provided full coverage for five Surgical Services: Trauma, Elective, Extremity, Hand, and Plastic. This included all operations on these services as well. The Surgical Service under Lewis admitted approximately 6,000 inpatients yearly—2,400 of these to the Trauma Service—and saw roughly 20,000 outpatient visits per year.

Two attendings covered the trauma service by alternating nights and rounding on their respective half of the service each day. As there were two resident trauma teams, this worked well. A third attending covered the Extremity-Elective Service, which included patients needing hand surgery. Schecter and Markison did most of the hand cases with junior residents. Individual attendings covered the elective surgical cases they generated from their personal clinics and ward consultations. The Trauma attending generally took call at home, with the exception of Horn, who lived in Redwood City and slept at SFGH when he was on call.

When Peggy Knudsen joined the staff, she needed a different call schedule for personal family reasons, and the staff went to a monthly-shared schedule with each attending doing a few nights of call. Initially there were two chief residents at SFGH, but in the 1990s the number was reduced to one.

This system meant that, each month, only three attendings would be busy clinically, leaving their non-clinic days relatively free to write or do research.

CLINICS

In addition to ward and operative responsibilities, the faculty had clinics to cover. There were twelve half-day surgical clinics each week. The clinics consisted of General Surgery, Trauma, Vascular, and Proctology. The members of the staff covered these clinics in rotation. In the early 1990s, Peggy Knudsen created a separate, multidisciplinary Breast Clinic, where consultations from oncology, radiation therapy, and plastic surgery were available.

FINANCES

When Lewis assumed responsibility for the Department in 1986, his chief priority was obtaining and maintaining fiscal solvency, which he found precarious. The Surgery Department was recovering from embezzlement (*see Chapter IV*) and was just finishing paying off a \$500,000 computer debt. Adding to the problem of making ends meet was the loss of University FTE salary support, so that most of the salary support for the surgical staff now, of necessity, came from patient care. His second priority was getting the Department's research laboratories re-established and getting back into basic research. Lewis succeeded in obtaining fiscal solvency by means of an innovative computer program, which tracked patients and verified attending involvement through daily progress notes. This program improved the ability to collect fees from third-party payers.

With Trunkey's departure, the Department was down to two University FTEs Lewis's and Bob Lim's—and one City FTE. In 1989, when Lim moved to the UCSF campus, the Department lost another FTE. Major grant support no longer existed to help support staff salaries, and research money was not generated to any significant degree. The Trauma Center Program Project Grant, which had first been awarded in 1969, had not been renewed in 1981. Lewis's NIH grant for the study of lung water and pulmonary capillary permeability had ended in 1985. The primary source of funds to support faculty now came from clinical care.

Because income generation had to come from patient care, more faculty time had to be devoted to clinical work and the paperwork necessary to secure payment from third-party payers. Most of the patients at SFGH were Medicare, MediCal, or "no pay" patients. To ensure recovery of fees from Medicare, MediCal, and other third-party payers, Lewis's computer-generated system of documentation became essential.

Lewis purchased computers for everyone who did not have one, established an office network, and wrote a database that could be used for multiple purposes. The program was called *Advanced Revelation*—a computer program, not a religious cult—and it differed in design from most others. He was assisted in developing the program by Jim Proctor, who was an expert in this program and all aspects of computers. The system permitted the tracking of patients, acted as a trauma registry, and maintained morbidity and mortality statistics. It facilitated keeping attendings' progress notes current and complete, and thus allowed accurate, well-documented billing that resulted in prompt reimbursement. One of the unexpected consequences of the outstanding documentation that this system provided—typed progress notes by attendings on all patients on the Surgical Services in the charts six days each week—was that

there were no malpractice awards involving the Surgery Department during these years, despite thousands of cases and patients.

The reason this system was so important was the bias of MediCal, Medicare, and most other payers, that most patients in a county hospital were cared for by residents. Therefore, if attendings were to get paid, they had to show—by daily progress notes and by operative notes—that they were indeed in charge. The operative notes were easily done. The daily progress notes were made by attendings at the bedside through hand-held recorders and were subsequently transcribed and pasted into the patient's chart. This system resulted in superb documentation, with the result that the attendings' billings were promptly paid. More importantly, attending oversight was actually there on a daily basis and resulted in consistent patient management. This system is still in place in the Surgery Department and—in addition to billing functions—allows for the tracking of individual surgeons' morbidity and mortality statistics.

Sophie Mitchell directed billing during this time. Carol Shagoury was the Trauma Nurse Coordinator who maintained the statistics on trauma complications. They both became very proficient in the use of the program.

Another problem, which constantly affected the hospital, was the San Francisco City administration. Relations with City Hall “waxed and waned, depending on the hospital administrator and the director of Public Health. There were no major disagreements or crises during this period, and the City subsidy for the hospital amounted to \$30 million to \$40 million per year, which was actually pretty good for the time.”

Lewis's biggest political problem was the UCSF administration. Relations with the Dean's office and the UC Department of Surgery were distant and sometimes tense. Lewis characterized them as “reasonably cordial, but with little interchange, either professionally or financially.” Haile Debas, the new chair and professor of Surgery at UCSF, and Lewis did not always see eye to eye. There were disagreements over the allotment of FTEs. Lewis readily expressed the belief that the FTE allotment to his Department was unfair and heavily favored the main campus, although the student-resident teaching load was approximately equal for the two sites. In addition, the fact that the SFGH Department was required to be essentially self supporting, through patient care, left little time for clinical research. He felt strongly that this was further argument for a more equitable distribution of FTEs. The insurance coverage of patients at UCSF's Moffitt Hospital was between 80% and 90%, whereas at SFGH it was 20% to 30%; thus the ability of the faculty to be self-supporting was much easier at Moffitt.

Lewis also took issue with the distribution of overhead funds from research grants—an issue that did not affect just his Department. At the time, it was estimated that SFGH received approximately \$25 million yearly in grants, and this generated \$6 million to \$7 million in indirect cost reimbursement—yet the support allotted to SFGH was less than 10% of that amount. Higher allocation of the overhead monies would have allowed additional development of facilities for clinical and laboratory investigation.

As the result of his inability to obtain money to upgrade his research space, Lewis spent \$120,000 of his Department's funds for renovations of the second floor of Building 1—the old operating rooms—to try to prepare the space for laboratories. This was a resource he could have used to provide seed money for research by his junior staff.

RESEARCH

Although clinical research continued during Lewis's tenure, laboratory research—which had all but disappeared during Trunkey's term—continued to suffer. Lewis had inherited a staff, which—with the exceptions of Jan Horn and Bob Lim—was not laboratory research oriented. Lim was doing platelet research that was supported by money from the Department of Medicine in exchange for his work in performing vascular access procedures for dialysis patients. This was a demanding chore that other members of the staff were not fond of doing.

Unfortunately, the other member of the staff interested in laboratory research, Jan Horn, had not been successful in obtaining a major grant that would help support his salary.

However, Lewis secured a substantial grant from the Centers for Disease Control and Prevention (CDC) to study the epidemiology of trauma in 1989 and a grant from Genentech to investigate the mechanisms of capillary permeability increase in acute respiratory distress syndrome (ARDS). Lewis's major interests were in cardiopulmonary physiology and the changes that occur in trauma, sepsis, and resuscitation. Lewis expressed regret that he had not written nearly enough or been able to do enough research or obtain grant support to prove most of his concepts.

Almost all of Lewis's research work was done before he became chief. He had clearly shown how to determine lung water accurately, but just what was happening in the capillaries to cause increased permeability—and what, if anything, could be done about it—were still unsolved problems.

His failure to mentor junior faculty and direct them toward laboratory research probably relates to his own administrative load, the Department's financial problems, a faculty who were not oriented toward research, and the necessity for the faculty to devote more time to clinical matters to generate clinical income.

Several clinical contributions were made by the faculty. A discovery by Jim Macho was serendipitous. During an experiment on a sheep, in which the thoracic duct was cannulated and a conduit placed in the left atrium, the fourth-year medical student who was assisting Macho, took the Satinsky clamp off the atrium before he had placed a stitch. The field immediately filled with blood. Macho grabbed a skin staple gun and put a few staples in the atrium, which produced complete hemostasis. Shortly thereafter, a patient came into the emergency room (ER) with three stab wounds of the heart. Macho happened to be in the ER and immediately solved this difficult problem by stapling the three wounds. The bleeding stopped, and the patient survived and did well. This technique was subsequently published in the *Journal of Trauma* and has been adapted by many others as a means of controlling cardiac hemorrhage.

Another contribution to the literature helped define the criteria for ER thoracotomies. In the late 1970s, Baker and Trunkey published a study showing that the survival rate for ER thoracotomies was 20%. A decade later, resident Peter Lorenz, working with Schechter and Macho, looked at ER thoracotomies between 1980-1992 and found that the overall survival rate had fallen to 13%. When efforts were made to explain the decline, it turned out that patients who had shown no sign of life in the field were being operated upon. When these patients were excluded, the survival rate was 19.5%. When they came to the ER alive, those patients who had cardiac arrest had a survival rate as high as 70%. This modified enthusiasm for emergency thoracotomy, a risky procedure in the era of AIDS.

Peggy Knudson helped write the initial San Francisco Injury Center grant proposal to the CDC, which was approved for funding two years before Lewis left. This grant has received repeated renewals, with Knudson as the principal investigator. It is one of ten Injury Centers funded nationally by the CDC. The grant focuses on the use of tissue-oxygen monitoring during shock and resuscitation, secondary brain insults after head injury, ultrasound use in trauma, prevention of pediatric post-traumatic stress disorders, and injury prevention. This grant received its most recent renewal in August 2001 in the amount of \$4,527,500 for a five-year period. In addition, Knudson also received a grant from the San Francisco Department of Public Health for a pediatric injury surveillance system.

MEDICAL STUDENTS

Early in Lewis's term, the method of teaching third-year medical students in all three hospitals changed, shifting from didactic lectures to interactive seminars centered on specific cases representative of different surgical illnesses. The final examination was also changed to give more weight to clinical performance during the clerkship.

The student teaching loads at SFGH and the main UCSF campus were roughly comparable, and at SFGH, teaching was shared equally by all members of the staff. The teaching of medical students began at the second-year level, with an eight-week period of physical diagnosis related to surgical problems. At the third-year level, there was a didactic surgical clerkship in which eight students were assigned to SFGH for eight weeks. This course was continuous, so that a total of 48 students were taught by the surgeons at SFGH each year.

At the fourth-year level, there were acting internships for four weeks on the five clinical services (Trauma, Elective, Extremity, Hand, and Plastic Surgery). Approximately 70 students rotated through them each year—the Trauma Service being the most popular.

SURGICAL RESIDENCY

When Lewis became chief, the resident staff consisted of assignments at the various postgraduate years (PGYs) of the following one PGY-7 (Plastic Surgery), two PGY-6 (chief residents), two PGY-5 (senior residents), two PGY-3 (Emergency Department), two PGY-2 (one assigned to orthopedics), and six PGY-1 (interns). In addition, most of the time, two PGY-3 general surgical residents from outside programs that did not have a trauma program, rotated

through the Trauma Service—San Francisco Kaiser, Oakland Kaiser, Letterman, and Mount Zion Hospitals, Santa Barbara Cottage Hospital, and Boston's Beth Israel Hospital.

The Services were organized as follows: There was one chief resident on the Trauma Service and one chief resident on the Elective-Extremity Service. The chief resident spent two months on each service, so that every year, six chief residents spent two months each on the two services. The chief resident on the Trauma Service spent his or her entire two months in the hospital. A former chief resident, now living in Europe, commented on the high work ethic in the United States and wondered if he would have gotten time off if his second son had been born while he was on the Trauma Service. The boy was born two days after his Trauma rotation ended.

The Trauma Service, in addition to the chief resident, had two teams, each composed of one senior resident, one junior resident, and two interns.

The Elective-Extremity Service had one chief resident, one junior resident, and two interns. As surgical demands changed over the years, the composition of the resident staff would be altered.

Residents' training was through bedside and operating-room contact and through conferences. There were ten hours of scheduled teaching conferences each week. Soon after his arrival, Bob Mackersie instituted conferences using videotapes of resuscitations in the ER, which greatly improved their efficiency and effectiveness.

SURGICAL PROCEDURES

The management of AIDS and HIV-positive patients was the most controversial surgical issue during Lewis's tenure. During this period, AIDS was becoming better understood, including how the disease was caused, how it was spread, how to manage patients, and how to prevent infection of health care workers. The consistent moral imperative of the Surgical Service during both Trunkey's and Lewis's tenure was that the surgeons were committed to the care of AIDS patients and would do whatever was necessary to provide optimal operative care.

Bill Schecter played a major leadership role and did much to counter the negative influence being provided by the chief of Orthopedics, who advocated non-operative management of AIDS patients. Schecter demonstrated that, if one used reasonable precautions and added protection against cuts and needle sticks by double gloving, the risk was minimal. Schecter developed a special routine for handling and passing sharps. He introduced non-wettable gowns and boots with leggings, both in the ER and the operating room.

The principal operative procedures directly related to AIDS consisted of lung biopsies to obtain cultures and verify the agent responsible for respiratory failure, biopsies of enlarged nodes, removal of skin lesions, and treatment of perianal condylomata.

Imaging techniques, applied more and more frequently in the assessment of trauma cases in the ER, resulted in a significant drop in the number of trauma laparotomies. Although CT imaging resulted in fewer operations for benign splenic trauma, splenic bleeding still remained a common indication for operative intervention. The junior staff tended to favor

splenorrhaphies over splenectomy whenever possible, while the senior staff tended to utilize splenectomy as the treatment of choice.

Interventional radiology was used more frequently in assessing bleeding and lent itself to the control of hemorrhage by non-operative means, using stents and embolic occlusion.

Thoracic surgery, under Art Thomas's direction, consisted of lobectomies and, more rarely, pneumonectomies for cancer, esophagectomy for cancer, and an occasional thymoma resection.

Lim was referred a large number of patients with liver tumors, and partial hepatectomies were on the schedule monthly. Lim also performed most of the endocrine procedures and the difficult vascular reconstructive procedures, as well as numerous vascular access procedures required to support the dialysis program. After he left to work at the Parnassus campus, Horn and Schecter temporarily covered this demanding group of patients in the intervals when a vascular surgeon was not available.

Frank Lewis and Bill Schecter supervised most of the general surgery procedures, which included hernia, biliary, bowel, and gastric surgery. Hand surgery, although shared with orthopedics, was supervised by Bill Schecter and Bob Markison, who had formal hand training with Eugene Kilgore's group. Jim Macho and Jan Horn covered breast surgery until Peggy Knudson's arrival, when she took over supervision of this discipline.

Other developments had occurred or were looming that would change surgical practice. In 1983, the *H. pylori* bacterium was identified as the causative agent for most peptic ulcer disease, and it was shown that peptic ulcers could be treated with antibiotics. H-2 blockers and proton pump inhibitors had come on the scene and were effective in treating ulcer disease and reflux esophagitis. Most bleeding ulcers could be treated endoscopically or by embolization. The net effect was that, except for simple closure of a perforated ulcer, peptic ulcer surgery disappeared. Few residents had any experience with vagotomies.

The surgical treatment of bleeding varices was abandoned in favor of variceal sclerosants and percutaneous transhepatic portal-hepatic vein decompression. Radiological interventionists began to play a more important role in treating other causes of GI bleeding utilizing embolic treatment. They also began to play a major role in percutaneous drainage of abdominal abscesses, so that surgical interventions for these abdominal problems were needed less frequently.

In 1984, the first laparoscopic (lap) cholecystectomy was done in the United States. After initial academic skepticism, there was a rush to learn and perfect the technique. Jan Horn took a laparoscopy course from McKernan in Georgia operating on pigs in 1990, and then practiced on sheep. With Leonard Schlain and Jonathan Leichtling as proctors, he performed the first successful laparoscopic cholecystectomy in the UC system. Larry Way at Moffitt Hospital followed shortly thereafter. Horn had to make do with the instruments currently available, which were pieced together from those used by ENT, Urology, and Gynecology. After he had done about 25 cases, he began to let the chief residents perform the operations, in addition to educating them using training modules. In order to advance laparoscopy, Horn was forced to beg, borrow, and purchase equipment on his own, long before the hospital would accept the

equipment as appropriate budget items. An additional obstacle was Lewis' initially negative opinion regarding the future of these procedures.

Once the most of the staff had received training in laparoscopic biliary surgery under Horn's leadership, they began expanding the technique to other procedures, such as endoscopic anti-reflux procedures, appendectomy, herniorrhaphy and splenectomy.

Schecter, Mackersie, and Thomas all had endoscopic surgery training. Horn assisted Thomas in performing the first thorascopic procedures until Thomas felt comfortable performing them on his own. Trauma procedures remained the exception, as the trauma surgeons continued to favor open procedures over endoscopic approaches.

There continued to be a constant struggle to obtain adequate equipment. Much of the equipment necessary to advance the endoscopic techniques was either donated or loaned by the representatives of instrument vendors.

THE INTENSIVE CARE UNIT

The intensive care unit (ICU) was a multidisciplinary unit. The Medical Service had a respiratory ICU and a coronary ICU, so the main ICU was dominated by surgical cases. After the Burn Unit was closed, the number of patients with major burns decreased. Those remaining were admitted to a separate, isolated area of the ICU. Major trauma made up the major proportion of the cases occupying the unit.

The chief of the unit continued to be anesthesiologist Richard Schlobohm. He supervised a multidisciplinary team of surgeons, internists, and anesthesia residents whose primary responsibility was respiratory care and pain-sedation management. Macho and Lewis were the primary surgical attendings covering the ICU. The surgeons retained primary responsibility for their patients and rounded daily.

The biggest problem for the Surgical Service was the continued shortage of ICU beds, which was a hold-over from the Trunkey period. It was necessary to move patients out of the ICU as fast as possible, because major elective surgery was cancelled whenever there was no guaranteed availability of an ICU bed.

THE BURN UNIT

Just before Trunkey left for Oregon, he named Jan Horn director of the Burn Unit. Horn had some experience with burns at Bellevue Hospital, where he had trained. He immediately joined the American Burn Association and invested a considerable amount of time in working closely with the committed cadre of burn nurses.

Lewis did not take a strong position in favor of the Unit because of the small number of burn patients. After Trunkey left, there was no one else in the Department who had a great interest in burns. Other burn units were siphoning off patients. Arguably, because of new sprinkler laws that cut the incidence of fires in public buildings, there were a dwindling number of patients who required hospital admission. Because of City economic problems, funding for nurses was being reduced. The administrator of the hospital was in favor of

closing the Unit because the care of burn patients was very expensive. Due to lack of leadership, lack of strong interest, dwindling numbers of patients, and expense, the decision was made to close the Unit. The Burn Unit closed over the objections of the burn nurses who cherished it. The hospital continued to take care of burns in the ICU, but it was not a very effective program.

THE NURSING SERVICE

The Nursing Service and the Department got along very well during Lewis's tenure. Lewis believed in and supported the Nursing profession. He was always willing to logically and quietly discuss issues brought up by nurses. He was "a great person to bounce ideas off and was highly respected by the Nursing Service," said a former Emergency Services Coordinator for the City and County of San Francisco.

The nurses were very well paid as a result of their Union—the Teamsters Union—which was strong and very good in bargaining negotiations. There were no strikes or crises following the 1988 agreement on nurse staffing ratios. "Deanna Mooney, one of the most intelligent nurses at the hospital, was centrally involved in negotiations. Mooney also ran Central Processing and Distribution—the source of all supplies and equipment, all purchases, and all sterilization—and she managed it with extraordinary competence," according to Lewis.

TRAUMA REGULATIONS IN CALIFORNIA

The history of trauma regulations in California is fascinating, and Lewis's part in them is very important. It begins in the mid 1970s, before regulations were even thought of—when Art Agnos, later the Mayor of San Francisco and California State Assemblyman, was a social worker living on Potrero Hill. In 1975, Agnos was shot by a group of men called the Zebra killers by the news media because they were a group of blacks who victimized only whites. He sustained major injuries to his stomach, pancreas, and colon and was taken to SFGH, where he was operated on by Carol Raviola, the chief surgical resident, and Donald Trunkey. Agnos survived and later returned to have his colostomy closed. He and Trunkey became friendly, and, as a result of his experience and Trunkey's mentoring, Agnos became a strong supporter of trauma centers.

A few years after Agnos was shot and cared for by Trunkey, Agnos was elected to the legislature and, as trauma was a hot political issue at the time, he wanted to sponsor a trauma bill and trauma regulations to establish a statewide system for California. Trunkey and Lewis wrote a short bill at Agnos' request that would establish a nucleus of activity to generate a trauma system. Art Agnos introduced the bill into the legislature. Lewis and Trunkey had not sufficiently recognized the political power of emergency room (ER) doctors who opposed the bill because they were not a major part of the trauma system that Lewis and Trunkey envisioned. One particular legislator, who was in the pocket of American College of Emergency Physicians (ACEP), stonewalled the bill. It sat for over a year, and nothing happened.

Lewis realized the bill would never go anywhere if two groups of doctors were fighting over it, so as chair of the Northern California Committee on Trauma of the American College of Surgeons, Lewis called a meeting in San Francisco. He had three chairs of the trauma committees in California attend for the surgeons. He invited the past, present, and future presidents of ACEP to represent the ER doctors. They met for a long day and hashed out their differences, generating a bill that was acceptable to both sides. The revised bill was sent back to Agnos and State Sen. Kenneth L. Maddy, and it was passed in two weeks.

This bill resulted in establishment of the Emergency Medical Services (EMS) Authority, which was the executive body in Sacramento, and an EMS Commission, which was the oversight advisory body. Lewis was one of the original appointees to the EMS Commission, and several months later—when the commission appointed a subcommittee to actually draft the trauma regulations—Lewis was appointed to co-chair that committee with an ER physician from UCLA. The committee met several times over the year—with most of the meetings held at Lewis's house in Hillsborough—and the members drafted complete regulations, sending them back to the EMS Commission for ratification.

There was then a long period of public comment and multiple Commission meetings devoted to dealing with details. In addition, even though the community ER physicians were directly involved in drafting the regulations, they took an opposing position because they felt trauma patients would bypass local hospitals in favor of trauma centers, thereby reducing their business. There were a series of increasingly contentious meetings of the EMS Commission. Because the lay members constituted a majority on the Commission, the whole question turned on which group of doctors could be more convincing to the lay members when it came time for approval. The crucial meeting was held at the San Francisco Airport. Lewis had arranged for Trunkey and two or three other surgical representatives to come and speak to the Commission before the vote. They provided the rationale for a strong advocacy of trauma centers and a restrictive policy in their designation so the numbers would be controlled.

The ER opposition centered on Ron Crowell, who was also a Commissioner, a past president of ACEP, and a politically powerful force, both in ACEP and in the State. Crowell was politically adept and, at the time, he was chair of the Commission and Lewis was vice chair. Lewis knew he would use parliamentary rules to defeat the measure if he could.

On the crucial day, the meeting convened around 8 AM, and Lewis's litany of speakers provided their testimony from then until around 9:30 AM. For some reason, Crowell did not show for the meeting! As vice chair, therefore, Lewis ran the meeting. Seeing this as a golden opportunity, Lewis pushed things forward as rapidly as possible and had the whole thing ready for a vote around 10 AM. Just at that time, Crowell burst in with great fanfare. It turned out his car had been rear-ended on the way to the Los Angeles airport, and he had missed his original flight. He was apprised of what had transpired and spoke eloquently against it, but by then it was too late, as most of the lay members had made up their minds. The vote went strongly for the rules advocated by the surgeons and California got trauma regulations. To this day, Ron accuses Lewis of hiring the guy who rear-ended him.

TESTING PHYSICIANS FOR AIDS

In the 1980s, AIDS was a political “hot potato.” The Centers for Disease Control and Prevention (CDC) concluded, in the late 1980s, that doctors should be tested for HIV, and those who were positive should be prohibited from contact with patients in any way that could transmit the disease—for example, in surgery. This proposal was based in large part on the case of an HIV-positive dentist and his patient who contracted HIV. It was never unequivocally determined that the patient contracted the disease from the dentist.

The American College of Surgeons became heavily involved in this issue and Paul Ebert, who was executive director of the College at the time, appointed Lewis to a relevant committee to draft the College’s policy on the matter. At a national CDC meeting in Atlanta, Ebert and Lewis presented the College’s position, which took sharp issue with the CDC proposal. According to Lewis, the College was the only professional group that objected to the CDC proposal. Lewis recalls that he reviewed the CDC numbers that were published to justify its recommendation and concluded that they were mathematically incorrect—their estimates of transmission of disease from doctors to their patients were based on the incidence of transmission from patients to doctors and were much too high for the operating room environment. Therefore, they did not justify the CDC policy proposals with reasonable data. The College pointed out that one of the consequences of the CDC policy would be to isolate AIDS patients and deny them care because no one would risk contact with them if their livelihood were at stake. Lewis says that he does not know whether their testimony had much impact or not, but gradually the hysteria abated, and fortunately the CDC never adopted its proposed policy.

RESIDENTS’ RECOLLECTIONS OF LEWIS

Spanky

Lewis’s nickname among the residents was “Spanky,” after the character in *Our Gang*. It was given to him by anesthesiologist Dick Barber, who was the only one who dared call him by the nickname to his face. When the actor who played Spanky died and his adult photo was published with his obituary, he could have easily been mistaken for Lewis.

Undue Influence

Lewis became almost livid one time when he realized that there was a positive correlation between which drug company representative had most recently visited the Surgery house staff with gifts of food and the residents’ selection of antibiotics.

Morbidity and Mortality Conference

When Lewis led M&M, the residents knew that they had to look critically at their complications, be prepared to defend their actions, deal with them, and own up to them.

Unflappable and Fair Chief

“Lewis was unflappable in all circumstances, inside and outside the operating room. He was a very fair, very even-handed chief of Surgery, and I enjoyed serving with him during my time at San Francisco General.” (...as told by Steve Raper)

The Lewis Doctrine

“A patient does not need *two* indications for a laparotomy.” This was said in regard to unnecessary CT scans.

Gourmet Dinners

Lewis’s dinners at his home in Hillsborough for seniors and chiefs had a gourmet class reputation both for food and wine. His consummate hostess, to whom he is now married, was Janet Christensen. As was true in the Trunkey period, his staff enjoyed lively parties, which were put on any time an occasion might justify it. (...as told by Bill Schecter)



Schecter, Knudson & Mackersie
Party Time

Teaching in the Middle of the Night

“At approximately 2 AM, a young man came in with a gunshot wound to his left arm completely severing his brachial artery. Lewis took me, a third-year resident, patiently through a primary of the brachial artery, demonstrating the triangulation technique, despite the fact that it was the middle of the night.” (...as told by Tim Crombleholm)

Fluid Shifts Impress

Tranbaugh and Lewis presented Grand Rounds on lung water and the role that extravascular fluid shifts played in pulmonary injury after severe trauma. “This was quite exciting to me at the time, as it changed my views on how trauma needed to be treated.” (...as told by Steve Raper)

Focusing a Resident’s Attention

On a senior resident’s first day on the Trauma Service, Lewis took him aside and reviewed situations that were considered avoidable complications and deaths during the previous five to six years. “I believe that this was a very effective way of focusing a senior resident’s attention on the job. I could feel my pulse quicken during this meeting in his office. In short, I think it tightened my approach up considerably for the next two months on rotation.” (...as told by Mike Longaker)

Teaching Effectiveness

“He taught me a lot, in my expectations of myself and my expectations for my patients. He taught me to look hard for complications and deal with

them. Under his leadership at SFGH, we saved a lot of lives. He really influenced the way I think of things, surgical and otherwise. I think people should know that.” (...*as told by Steve Raper*)

Expectations of His Residents

“As an intern, I was given a cholecystectomy to do, and Lewis was the attending. We met in the xray department and went through the patient’s history and findings, and we looked over the ultrasound exam. Dr. Lewis described the different ways to diagnose cholecystitis and/or cholelithiasis. Then we went to the patient, went through the history and exam again, and checked the laboratory data. Next, we went over the consent and what to say. Then, before we parted he said, ‘Tomorrow I don’t want any uncertainties regarding anatomy and variations of such when I ask.’ I went home and studied. The case went great and postoperatively we talked daily about the patient’s course and what to look for. When the patient was discharged, we talked about follow-up and possible future problems. As a professor in Sweden, I have applied much of this in my teaching.” (...*as told by Claes Skioldebrand*)

Coolness under Fire

At that time, stab wounds were explored under local anesthesia in the ER, and if found to penetrate the peritoneum, they were explored in the operating room. In one case, the chief resident and Lewis were surprised to see a large hematoma in the retroperitoneum, and, after they mobilized the right colon, a briskly bleeding vena cava was found. Lewis was able to control the bleeding with pressure while a side-biting clamp was applied and the wound sutured. Then they proceeded to turn the cava over to rule out a wound of the posterior wall. Lewis showed coolness and almost nonchalance as they controlled what at the time seemed to be a devastating injury. (...*Steve Raper*)

Art of Fly-Fishing

The younger Lewis showed considerable promise as a beginning fly-fisherman. He intuitively realized that there was more than science in fly-fishing, and therefore did not try to reduce fly-fishing to a series of mathematical formulae. Rather, he relied on the centuries-tested elements of plenty of sleep and red wine. Unfortunately, the increasing demands of academic surgery prevented his reaching his early promise. His favorite fishing companions were Joe Walsh and Norman Christensen, shown here. (...*as told by Norm Christensen*)



INCIDENTS & ANECDOTES

The Temple of Doom

When Ward 5A was established in 1983, there was little that could be done for AIDS patients, and most admitted to the ward died, sometimes horribly. Surgical residents—being surgical residents—quickly began to call the ward, “The Temple of Doom,” after the popular Indiana Jones film. While the term was politically incorrect and deeply offended the nurses and medical staff on the ward, the name stuck.

Leo Eloesser

A resident remembers admiring the portraits in the front lobby of SFGH, and in particular the portrait of Dr. Leo Eloesser by Frida Kahlo, as well as the painting *The Tortilla* by Diego Rivera. He recalls listening to Bill Schechter talk of the life and history of Leo Eloesser, who is a legend not only at SFGH but in Mexico as well. Eloesser lived and taught that the indigent or poor should get the exact same level of care as the captains of industry. (...*as told by Stephen Raper*)

Musings of a Chief Resident

The anxiety of running to answer the page, “Trauma room one, trauma room one, STAT.” Lots of cases. Try to be a good team leader. Work under pressure and when tired. Get to know all kinds of personnel working there better.

Eats

Getting served a “midnight snack” by the “enormous guy in the “Café General,” Barry. He knew the name of every resident, medical student, and attending and was a friend to all. Getting served breakfast after a tough night by the always smiling and friendly lady in the cafeteria.

“Mission Mary”

Mary O’Connor, who was head nurse in the ER and who had been there a long time, could make a rookie resident nervous. “Blaisdell would not have done this and Trunkey would have done that,” she would say. This was not always what the chief resident wanted to hear in the middle of his or her first tough ER trauma arrest. She was an outstanding clinical nurse and nursing leader—tough as nails with a heart of gold. (...*as told by Bill Schechter*)

The “Roach Coach”

This truck parked outside the ER about 4 AM to serve sandwiches, chili dogs, soda, coffee, and so forth, to hungry interns and residents as they strived to get through the last call of the night and finish their scut work. The stuff on the van truck was left over from previous stops and was in poor condition. Someone at one time had seen roaches crawling around the merchandise—hence the name Roach Coach.

Catching Up on the Newspaper

Bill Schecter walking and reading the New York Times as he came into the hospital in the morning.

Cause of a Sleep Disorder

A giant patient, headed for jail with a probable murder sentence, swearing revenge because I had “stuck that tube in my thing” during ER resuscitation. I had a sleeping disorder for some time after that.

Helluva Christmas

A visit by the Hell’s Angels one holiday season. A surreal scene, watching big hairy bikers, a rough looking bunch, wearing Santa hats and handing out presents to the children on the pediatric ward.

A Scene to Remember

The sense of the surrealistic while standing back and just observing the male ward for a couple of moments in the middle of the night. There was someone in four-point restraints having a seizure and, next to that patient, a terminally ill, very old, quiet, thin Chinese man with a wart on his face from which a long, single strand of hair grew. Next to him, a confused alcoholic trying to untangle the Kerlix wrapped around the IV. In the other corner, a medical student on the Extremity Service trying to take a history and physical on his fifth patient since 9 PM. On the desk table, a half-drunk coffee cup and remnants of a dry doughnut share space with a radio softly playing Cyndi Lauper’s latest hit.

A Dramatic Case

A lifetime impression was made on a senior resident when a patient came in with signs of tamponade and a single stab wound in the left anterior chest over the pericardium. Bob Lim was the attending. The patient had no vital signs and was rushed to the operating room, where his chest was rapidly prepped and draped and preparations were made for a mediastinotomy to repair the injury. The patient was given succinylcholine but essentially no anesthetic. I will never forget, as I began making an incision over the sternum, the anesthesiologist leaning over and saying to the still conscious patient: “You won’t be able to move and you’ll feel a little pressure on your chest now.” We opened the sternum and pericardium and found a single laceration in the right ventricle. Dr. Lim was calm and collected. His main focus was to ask me not to continue to hold the needle, once we placed the needle in the beating heart, because of the risk of causing a greater laceration, but to make short quick pushes of the needle through the ventricle. Several sutures stopped the bleeding and the patient went home approximately 48 hours later. (...as told by Stephen Raper)

Black Power

In 1990, a representative of the State Fire Marshal’s office visited the Department of Surgery offices. The Surgery offices were in a converted patients’ ward, with secretarial cubicles extending into the ward hallway, leaving the walk space narrowed down to 42 inches, the minimum necessary in a public office but much too narrow for a patients’ ward. The State Marshal’s

Office told the Department that it would have to rip out all of the cubicles and restore the original eight-foot space between the walls to comply with code. The hospital administration, the City Fire Marshal, and Mayor Art Agnos seemed powerless to fix the problem.

Several months later, the State Marshal's office again came around, and—finding that nothing had changed—gave the Department until January 1st to remove the cubicles or the Fire Marshal would send in a wrecking crew to take them out. We re-emphasized that these were offices, not a patients' ward, but this carried no weight with the State Fire Marshal.

In desperation, Lewis called Willie Brown, who was still Speaker of the California Assembly, and explained matters to him. Lewis had met Brown years before, when he and Trunkey were dealing with the State Legislature over trauma regulations. After the conversation with Brown, results were immediate. Two days after the phone conversation, Lewis got a call, later followed by a letter, from the State Fire Marshal himself. He apologized for the inconvenience that Lewis and his staff had been put through. He further said that he had not understood the details—that under the circumstances, the Department of Surgery was clearly within regulations and need not change anything. Lewis says that, if he were still in San Francisco, he would vote for Willie Brown for any office he could name.

AIDS "No Risk"

Frank Lewis recalls sticking himself twice with a needle while doing an open lung biopsy on an AIDS patient. He was assured by Julie Gerberding—who was the SFGH guru on the subject, and who is now the director of the Centers for Disease Control—that he had little to worry about, as it was still thought that the disease was transmitted only by sexual contact.

Reducing Risk

Merle Sande, the chief of Medicine, who was in overall charge of the AIDS program, considered Schecter one of the heroes of the AIDS epidemic. Julie Gerberding and Bill Schecter worked together to allay the fears of surgeons and develop ways of reducing risk. Schecter espoused the view that surgeons had a responsibility to care for AIDS patients while he developed ways of reducing risk, such as minimizing the use of sharp instruments and using trays to pass instruments.

STAFF MEMBERS' COMMENTS ON THE LEWIS YEARS

By 1992, it was apparent that Lewis was troubled by the weight of the politics of his job. His relationships with the UCSF Department chair had progressively soured, as he kept insisting that UC provide appropriate resources for his SFGH program. The loss of University FTE's (salaried positions) over the years resulted in his service becoming practice driven at the expense of academic accomplishment, and he feared for survival of his junior faculty. As always, he mounted a well-reasoned attack on his lack of support and, because it was so effective, it only compromised his relationships even more. When it was finally apparent that he was up against a stone wall, he felt that his best option was to look elsewhere for a new position. The opportunity presented itself when

Henry Ford Hospital, a major teaching hospital in Detroit allied with the University of Michigan, offered him the position of chief of Surgery at a salary level that was difficult to refuse. He accepted the job offer, effective September 1992. Schechter successfully negotiated additional FTE support and funds to construct a modern basic science laboratory as part of his recruitment package after Lewis' departure. Lewis married Janet Christensen, his long-time friend and laboratory technician shortly after moving to Detroit. The wedding ceremony was held in the San Francisco home of Bob Mackersie, and many of their friends were able to attend.



Frank & Janet Newlyweds

Lewis proved to be a remarkably effective leader at Henry Ford Hospital, and moved from there to Philadelphia in 2002 to become the Executive Director of the American Board of Surgery.

Bill Schechter recalls...

Frank had a unique ability to express complex physiologic relationships in mathematical terms. He spent considerable time, including research time, in either clarifying medical concepts, or debunking misconceptions. Examples are his work with Robert Tranbaugh on the cause of pulmonary edema after trauma and burns, and his work with Paul Hansen debunking the concept of supranormal oxygen consumption.

Peggy Knudson recalls...

I arrived at San Francisco General Hospital in 1989, after having served as the Trauma director at San Jose Medical Center for three years and spending another three years as the associate director for Trauma at Stanford Medical Center under John Collins. At both of my prior positions, my appointments were clinical in nature, but Frank Lewis gave me the opportunity to try my hand in the academic track. He had just been awarded a grant from the Centers for Disease Control Injury Center, and he was willing to give me some limited funding from the grant to start my "paper writing." He also insisted that I learn to use a computer (my first time!)—and after his prodding, I actually became quite efficient on an old IBM computer that still had DOS programming. Frank was quite opinionated about several things. For example, he hated MACs and loved PCs. For my very first paper that was presented at a national meeting, he changed all of my slides and insisted that I write out my talk—and thank God for both! He taught me experimental design and how to critically evaluate literature and experiments.

Although he was a master surgeon, and happiest when in the OR, he also had strong opinions about clinical care. For example, one day on rounds, I found that all of the retention sutures on a patient of mine had been removed by

Dr. Lewis! Believe me, I never used retention sutures again. Even after his departure from SFGH, Frank continued to be a champion for my advancement in academic trauma surgery, and I continue to be grateful for his support.

Bill Blaisdell recalls...

Frank Lewis was one of the brightest residents I ever trained. Actually, he might rightly claim to have trained me, as he always had the answers to any question and was quick to point out my errors and mistakes. His quick and analytical mind was amazing to behold. When it came time to consider him for staff, there was no question that I wanted him, but this involved financial risk related to the soft money needed for his salary. As a result, I felt compelled to present the decision to the five other members of our team. Everyone agreed that he was outstanding—moreover, he would add the touch of a connoisseur to the Department and immediately upgrade our social standing. The vote was unanimous—we had to have him!

Norman Christensen recalls...

Frank Lewis has always reminded me of Richard Feynman by his demeanor, his love of life, the way he looked at and solved problems, and how he communicated with others. Although he was not a Nobel Laureate, as Richard Feynman was—in Physics in 1965—both attended Princeton University, and there were other striking similarities between the two. ...Remember Feynman? He showed a Congressional Committee investigating the spacecraft Challenger disaster what caused the ‘O’ rings to fail



Frank Lewis Staff with Significant Others

by simply dousing them in water. Frank has the same ability to analyze problems. They were both brilliant and analytical thinkers, disdained dogma, and were always curious about how things worked—and each had the ability to explain complex matters in understandable terms. Yet both were enjoyable and entertaining companions, enjoying good food, wine, the other sex, and challenging discussions. I do not know about Feynman, but Frank would sometimes try to bring closure to a discussion (or argument) by proclaiming, “In point of fact...,” sometimes uttering this with more intellectual vigor than perhaps the situation required. Of course, Frank is human and has some frailties—perhaps the worst was, and is, infatuation with fast cars. Fortunately he lived through his attachment to an Aston Martin—an English racing car with an extreme engine and no brakes—that he would drive from Hillsborough to San Francisco General Hospital.

CHIEF RESIDENTS — THE FRANK LEWIS YEARS

1986-1987

Boyes, Stephen (Steve)
Kerley, Suzanne
Raper, Stephen (Steve)
Skioddebrand, Claes
Slate, Kenneth (Ken)
Weinstein, Joel

1987-1988

Duh, Quan-Yang
Flake, Alan
McVicar, John
Olive, Chapman
Sauer, Loie
Stevens, Michael (Mike)

1988-1989

Levin, Kenneth (Ken)
Nelken, Nic
Okuhn, Steve
Peper, Eric
Rabkin, John
Smith, Alison

1989-1990

Brunel, Wiley
Eshima, Issa
Gemlo, Brett
Paty, Phil
Schneider, Peter
Siperstein, Allan

1990-1991

Barker, Bruce
Ciresi, Kevin
Crombleholme, Tim
Fraker, Doug
Heck, Christopher
Lee, Roberta
Smedira, Nic
Whitney, Tim

1991-1992

Bland, Greg
Flynn, Art
Gray, John
Meyer, Rebecca
Moelleken, Brent
Orloff, George
Orloff, Susan
Rosas, Efren

1992-1993

Crochelt, Robert
Doherty, Gerald
Farmer, Diana
Harris, Hobart
Longaker, Michael
Salo, Jon
Wright, Fred

**LEWIS'S RESEARCH FELLOWS DURING HIS CAREER AT SFGH
(1978-1992)**

Lewis's fellows' research focused on extravascular lung water, capillary permeability ranges, neurogenic pulmonary edema, crystalloid resuscitation versus colloid fluid resuscitation, and oxygen consumption and adrenergic agents.

1977-1978	Johannes Sturm, M.D.
1978	Luis Oppenheimer, M.D.
1978-1979	Steven Hill, M.D.
1979-1981	Robert Tranbaugh, M.D.
1981-83	Robert Mackersie, M.D.
1982-1984	Fred Bongard, M.D.
1983-1984	Louis Ostrow, M.D.
1984-1985	Arun Gosain, M.D.
1985-1987	Nic Nelken, M.D.
1987-1989	Bruce Barker, M.D.
1987-1989	Johannes Bock, M.D.
1990-1992	Paul Hansen, M.D.

Johannes Sturm is a professor of Surgery in Germany. He was awarded the Residents' Research Award from the Association for Academic Surgery in 1978. Lewis considers him to be his "most rewarding fellow," as he went from "virtually no awareness of research to tremendous expertise in designing and carrying out experiments. He developed a zeal for research and an understanding of physiology that was probably greater than any of the others'." On his return to Germany, Sturm greatly influenced trauma research and was pivotal in securing research funding by the German equivalent of the NIH for a major multicenter study of trauma. Lewis says that, on his return to Germany, Sturm was the only surgeon talking knowledgeably about critical care, as until then critical care had been the purview of the anesthesiologists.

Luis Oppenheimer returned to the University of Winnipeg, where he is now a professor of Surgery. There, he worked productively in critical care and continued his research on pulmonary failure.

Steven Hill is in private practice, doing almost exclusively vascular surgery in Roanoke, Virginia. While a fellow, he sustained a gamekeeper's thumb injury while skiing and, while a chief resident, he suffered a fractured femur and other major injuries in a head-on crash when driving home one night. He recovered without sequelae from these injuries.

Robert Tranbaugh is chief of the Division of Cardiac Surgery at Beth Israel Medical Center in New York. Lewis considers him to be the best of all his

fellows. At the end of two years of fellowship, he had published 23 papers. His awards included: American College of Surgeons (ACS) Committee on Trauma National Residents' Award in 1981; American Trauma Society Young Investigators' Award in 1981; and American College of Chest Physicians best research paper in 1981. He gave very polished presentations and won more research rewards than any of Lewis's other fellows. One of his most interesting papers was delivered to the American Surgical Association in 1980, in which he and Lewis showed that the primary determinant of pulmonary edema after burns was the onset of sepsis, and that massive crystalloid resuscitation did not result in increased extra-vascular lung water. The paper was harshly criticized by Dr. Francis Moore of Harvard.

Robert Mackersie is now at SFGH, where he is professor of Surgery and chief of the Trauma Service.

Fred Bongard is professor of Surgery at Harbor-UCLA Medical Center.

Louis Ostrow, an Air Force career medical officer, was very productive. His awards included: The Resident's Research Award, Region IX, ACS Committee on Trauma; the 1984 Resident's Research Award, Military Region; and the ACS Committee on Trauma Award in 1985.

Arun Gosain completed his training in General Surgery in New Jersey and subsequently trained in Plastic and Reconstructive Surgery at the University of Wisconsin, where he joined the faculty. He went on to a distinguished career in academic Plastic and Reconstructive Surgery as a craniofacial surgeon.

Nic Nelken is in the practice of vascular surgery in Honolulu, Hawaii.

Bruce Barker went into practice in San Francisco at the Kaiser Foundation Hospital.

Johannes Bock returned to Germany, where he completed a Radiology residency. Lewis comments that Bock was extraordinarily smart, with an excellent mathematical background—and when last heard from, he was doing some leading edge work in computerized imaging.

Paul Hansen is in private practice at the Oregon Clinic in Portland, where he remains active in research and is director of Surgical Education.