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Triumph Over Tragedy: The Odyssey of an Academic Physician

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The Odyssey of an Academic Physician

WILLIAM H. FRISHMAN, M.D.

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ACADEMIC PHYSICIAN

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ACADEMIC PHYSICIAN

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BRONX, NEW YORK



Science International • New York

PROLOGUE

THE MESSENGER

I woke up shivering uncontrollably. My family and I were living in a two-room tenement apartment on the second floor of a walk-up building in the South Bronx. My sister and I shared the one bedroom, and my parents slept in the other room, which also served as our living room, kitchen and dining room. The apartment had little to no heat in winter. My mother would often leave a glass of water on my night table, and the following morning it would be frozen solid.

My shivering on that frigid morning in February of 1954 was due to more than the winter storm raging outside; I was very ill with both a sore throat and a high fever. These were the years when such an illness in a child was thought to be a prelude to polio or rheumatic fever, scourges of youth that had affected some children in our building and at school. My mother was in a panic, and my father was absent, as was often the case, at work in his clothing business. Unable to see the doctor in his office, my mother called on the phone, and asked if he could possibly make a house visit. Despite the terrible weather, he agreed to come over that evening after his office hours were finished.

Our family physician was Dr. Albert Goodman, an appropriate surname, to be sure. The waiting room in his office was always full, and no appointment was necessary to see him. He was of medium build, with thick, wavy brown hair. With his large pale blue eyes and kind face, there was a serene manner about him that put his patients instantly at ease. When he greeted me, I always felt as if I were a long lost relative or friend he was seeing again after a long absence. He had an accent foreign to the Bronx, having been raised in a small town in Western Pennsylvania. He had married his secretary later in life, in his early fifties, and they had young children. He drove the only Cadillac in the neighborhood, and lived in a large house in the Pelham Parkway section of the Bronx.

When he arrived that February night, I was still sick in bed, having undergone the usual alcohol and witch hazel sponge bath to bring down my fever. The apartment was freezing cold with the howling wind penetrating the window cracks, and I was doing my best to be brave, despite lingering fears my illness would get far worse before it got better.

The poverty of our existence in the Bronx was aggravated by the constant arguments of my parents over money. Every night my sister and I were awakened by a barrage of insults that my mother would throw at my father as soon as he walked through the door, after a hard day at work. The other sounds of the night were no better, which I clearly heard from our bedroom window overlooking a cement courtyard in the rear; the din of the above ground subway trains, other parents arguing, beggars pleading for charity, cries of babies and children, drunken revelers, loud music and televisions playing, and the squeals of passion, which I would learn to appreciate in later years.

At eight o'clock in the evening we heard footsteps on the stairs outside. Dr. Goodman knocked on the door and was let in by my mother. He came into the bedroom and with the ice and the snow covering his hair, face and overcoat, he appeared like an apparition. I don't know if it was the fever,

or my fear, or the desperation I felt about my family's situation, but on that night I began to believe in angels. Not the chubby-cheeked cherubim that adorn greeting cards with golden halos and wings, but an emissary of healing, good will and kindness that walks among us. The Hebrew word for angel is "malach" which also means "messenger." That evening, Dr. Goodman was my angel, a sublime messenger who not only comforted and soothed me, but also awakened me to my destiny and an escape from the poverty that surrounded me.

After removing his outer clothes, Dr. Goodman came to my bedside to begin my examination. He looked around the room, sensing the cold, and began asking questions to both my mother and I about my symptoms. He was pensive as he began examining my throat, glands, lungs and heart. His stethoscope felt cold against my skin. Dr. Goodman began the abdominal exam with his hands, and while probing me asked a simple question, "Billy, what do you want to be when you grow up?" Not sure of what to answer, I heard myself reply, "a doctor." When he heard my answer, Dr. Goodman smiled and nodded his head while he completed his exam with the reflex hammer. He then reassured my mother that I only had a virus, and would soon recover. I was not going to die, and even the dreaded penicillin injection was not necessary.

He put on his overcoat, with the snow now melted, picked up his black medical bag and walked toward the door. My mother brought out her purse to pay him his customary five dollar fee for a house call. Surprisingly, he paused, pushed her hand away and looked at me steadily with his kind blue eyes while saying, "Billy is going to be a doctor. I am giving him professional courtesy." He then walked out of our apartment, down the stairs and into the blustery storm. My mother started to cry, and said, "an angel has just visited us." It was as if she had read my mind. She was correct, of course. I knew from that point forward what I wanted to do with my life – devote it to service and to easing the suffering of my fellow man. Little did I know at the tender age of seven what would be asked of me in following that destiny. What I do know, is that I would never recall a kinder act in my entire life.

CHAPTER

1

ORIGINS

"If I didn't mold my reality then I'd still be in the ghetto where people like me are supposed to stay. You have to dream your way out of the nightmare."

- will I. am

My story, like all who are a product of the immigrant experience, begins with a dream of being somewhere better - a safe place to call home. I come from a family of Jewish garment workers, not well educated, who arrived in New York City during the early 1900s from central Europe, before the onset of World War I. From 1880 through 1924 an increasingly steady flow of Jews made their way to America. Close to two million migrated from central Europe and the Russian Empire due to political upheavals and economic hardships. They all arrived seeking the "American Dream." This intense period of immigration came to an end with the passage of restrictive laws in the 1920s.

My paternal great grandparents (Frishman) and grandfather came from Belchatow, Poland, a small textile manufacturing town just south of Lodz that was then under Russian jurisdiction (Fig. 1A). During the early part of the 19th century, the family had migrated to Poland from Prussia for job opportunities hence my Germanic last name and my Yiddish-speaking forebears (Yiddish is a German-Hebrew dialect). Sadly, most of the Jewish population that remained in Belchatow during World War II were gassed in the concentration camps at Chelmno and Auschwitz.

My great grandparents Ezekiel (Iksil) and Shandil (Jenny) Markowitz Frishman (Fig. 1B) and their young children first settled in Hoboken, New Jersey (near Frank Sinatra's family home) (Fig. 1C). There were eight grown children, and my grandfather William (1891-1942) was the oldest. Like his father, he was a tailor who would open a small men's clothing factory and retail store in New York (Fig. 1D). The entire family would ultimately move to the Bronx, which was being developed after World War I, with the extension of the subways to the northern borough from Manhattan.

It is believed that the first European contact with the Bronx was in the early 1600s when Henry Hudson sought cover from a storm for his vessel the Halve Maen (Half Moon) in Spuyten Duyvil Creek. In 1639, the land was settled by Jonas Bronck, a Swedish sea captain from the Netherlands who built a farm and homestead at what became 132nd Street and Lincoln Avenue. He wrote of his new home, "The invisible hand of the Almighty Father, surely guided me to this beautiful country, a land covered with virgin forest and unlimited opportunities. It is a veritable paradise and needs but the industrious hand of man to make it the finest and most beautiful region in the entire world." Later, the area that had become known as "the Bronck's farm" and the "the Bronck's river" was shortened to "the Bronx."

In 1898 the Bronx became part of the consolidated City of New York and the borough became part of New York County, having been annexed from Westchester County which was located north of Manhattan. In 1914, Bronx County was created, and the borough experienced a boom period with an explosion in population growth to 1.3 million in 1930, largely due to the expansion of the subway system.

The borough is 25% parkland including the Bronx Zoo, the Botanical Gardens, and the largest

No. 1246

Form 9743

TRIPPLICATE
(To be given to the person making the Declaration)

UNITED STATES OF AMERICA

Department of Commerce and Labor
BUREAU OF IMMIGRATION AND NATURALIZATION
DIVISION OF NATURALIZATION

DECLARATION OF INTENTION

(Invalid for all purposes seven years after the date hereof)

STATE OF NEW YORK, } In the SUPREME Court
COUNTY OF NEW YORK, } ss: THE STATE OF NEW YORK,
of the EAST JUDICIAL DISTRICT

I, Iksil Frishman, aged 40 years,
occupation Tailor, do declare on oath that my personal
description is: Color White, complexion Fair, height 5 feet 4 inches,
weight 150 pounds, color of hair Brown, color of eyes Brown
other visible distinctive marks Scar on left jaw.
I was born in Belchatow, Poland,
Russia, on the 9th day of January, anno
Domini 1867; I now reside at 103 Conynth Street, New York City
I emigrated to the United States of America from Antwerpen, Belgium
on the vessel Vaderland; my last
foreign residence was Belchatow, Russia

It is my bona fide intention to renounce forever all allegiance and fidelity to any foreign
prince, potentate, state, or sovereignty, and particularly to
NICHOLAS II, Emperor of Russia, of which I am now a subject;

arrived at the port of NEW YORK, in the
State of NEW YORK, on or about the 22 day
of June, anno Domini 1904. I am not an anarchist; I am not
polygamist nor a believer in the practice of polygamy; and it is my intention in good faith
to become a citizen of the United States of America and to permanently reside therein
SO HELP ME GOD.

x Iksil Frishman
(Original signature of Declarant)

[SEAL.]

Subscribed and sworn to before me this Renewth
day of June, anno Domini 1907

Peter J. Dooling
Clerk of the SUPREME Court
By John H. O'Connell SPECIAL Clerk

*If the above named individual is a corporation, the character of corporation or name of corporation should be given. 11-2001

Figure 1A: The immigration papers of my great-grandfather, Iksil Frishman (1904). Belchatow was previously part of the Russian Empire (now it is part of Poland). Many Jews emigrated to Belchatow from Prussia for job opportunities in the textile industry as their settlement in other parts of the Russian Empire was forbidden.



Figure 1B: My great-grandmother Jenny Markowitz Frishman with six of her children after their arrival in the United States (1905).

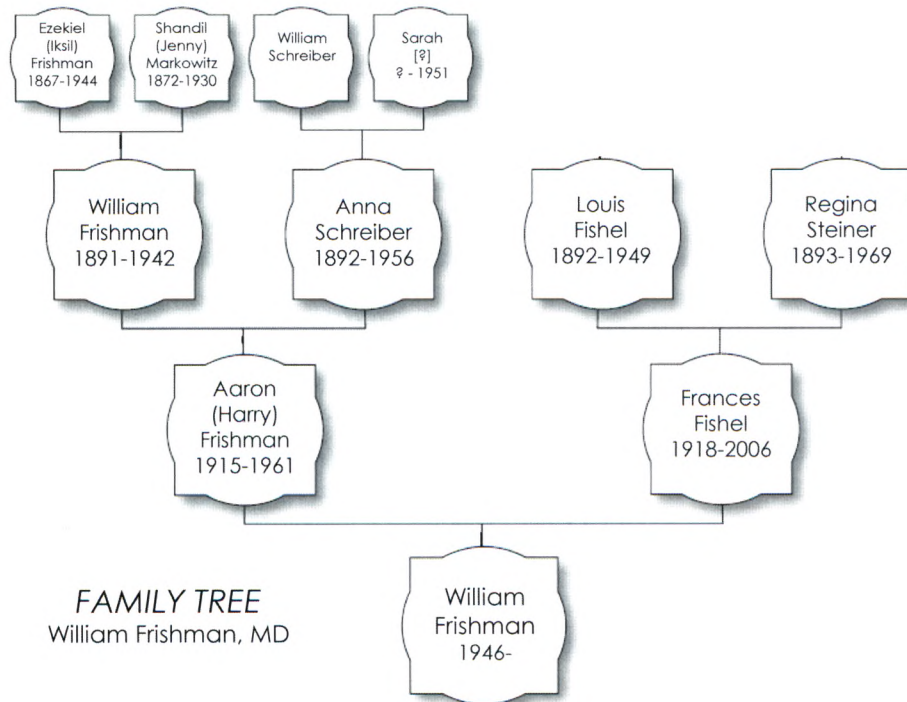


Figure 1C: Schematic of my family tree.



Figure 1D: My paternal grandfather, Chaim Wolf (William Howard) Frishman. He owned a small men's clothing factory and a retail store in the Bronx. He died of a heart attack in 1942, years before my birth. I am named after him.



Figure 1F: On the left is my great-grandmother, Sarah Schreiber. In the rear is my grandmother, Anna Schreiber Frishman. To her right is my great-grandfather, William Schreiber with a full beard in the Jewish tradition.



Figure 1E: Rear, center; the house on Bronx River Avenue where I spent the first two years of my life. Behind the house was a junkyard that lay adjacent to the river. My Uncle Phil is in the foreground with his glove, playing a game of baseball in the street.



Figure 1G: My maternal grandparents, Louis Fishel and Regina Steiner Fishel, dressmakers who settled in the Bronx after emigrating from Europe. My grandfather owned a small dress factory in New York that failed during the Great Depression.

park in New York City, Pelham Bay Park which includes Orchard Beach, one of the recreational projects of Robert Moses, the “Master Builder” of New York State. One of the spectacular architectural wonders of the Bronx and New York City is the Grand Concourse. This 182-foot wide Boulevard was modeled after the Champs-Élysées in Paris. It was completed in 1909 and has eight miles of “art deco” apartment houses from one end to the other. It also became the premier shopping area in the Bronx, competing with Fifth Avenue in Manhattan.

Another one of the great edifices of the Bronx, known all over the world, is Yankee Stadium. Built in 1923, it was the first athletic ballpark in America to be called a stadium. Previously, the Yankees played baseball at the Polo Grounds across the Harlem River in Manhattan, sharing the park with the New York Giants who had defeated them in the 1921-22 World Series. The Giants evicted the Yankees, so the team owners built their own ballpark in the Bronx. During the first season in 1923, Governor Alfred Smith (who ran for President in 1928) threw out the first ball on opening day, and Babe Ruth hit a home run. The Yankees would win their first of many world championships that same year. Every Bronxite has enormous pride in the Yankees, the greatest American professional baseball team in history. The stadium has always been a shrine for my family, and I have attended multiple games there with friends and relatives for over 60 years (*see Chapter 3*).

In 1925, my grandfather bought a four-family house in the Bronx on Bronx River Avenue where my father and his brothers were raised (Fig. 1E). Behind the house was a scrap metal business that bordered the river. My grandfather’s men’s clothing business would suffer during the Great Depression, but survived. He would die of a probable heart attack in 1942, and I am named for him. He married my paternal grandmother, Anna Schreiber, in 1913. Her family came to the United States from Austria (Fig. 1F). Her parents had seven children, all of whom were garment workers who settled in the Bronx. My grandmother Anna could not read or write English, only Yiddish and Hebrew.

My maternal great grandparents (Fishel) and their eight children emigrated from Western Russia, first settling on the Lower East Side in Manhattan before moving to the Bronx in the 1920s. My maternal grandfather, Louis Fishel, was a dressmaker who opened a small factory in Manhattan that failed during the Great Depression. He reopened another factory in the garment center of Boston. There is a story that my grandfather’s workers in Boston loaned him the money to stay in business during a downturn, because they enjoyed working for him. He would die in 1949 of a heart attack at age fifty-seven, when I was three.

My grandfather married my maternal grandmother, Regina Steiner, in 1912 (Fig. 1G). My grandmother, the daughter of an innkeeper, came to the United States from the Carpathian Mountain region of Hungary with her three siblings. Her mother died when she was a young girl, and her father remarried and stayed in Hungary. Most of her family who stayed in Hungary died in the Holocaust during World War II. My grandmother was also a dressmaker who first settled in Ballston Spa, just outside of Albany, New York, eventually moving to Manhattan where she met my grandfather in the factory where they both worked. In time, they moved to the St. Lawrence Avenue section of the Bronx where they rented an apartment in a two-family house. After my grandfather’s death, she lived with my aunt and uncle in the Bronx. She was fluent in English and Yiddish in both the spoken and written word, and was extremely kind to me. She also never lost her temper. In Yiddish she would always tell my parents to “let him be” with regards to my childhood antics.

My paternal great grandmother, Sarah Schreiber, was still alive when I was born but I don’t remember her. My paternal grandmother, Anna, would live in our apartment building. She was short in stature, with a warm good nature and a kind laugh. I also never saw her angry. She would often babysit for me when my mother had to resume working to help with the family finances. Although



Figure 1H: My mother, Frances, as a young woman in the St. Lawrence area of the Bronx.



Figure 1I: My father, Aaron (Harry), with cigarette in hand, at Fort Sill, Oklahoma. He and all of my uncles were drafted to serve in the Army or the Navy during World War II. My Uncle Phil (Frishman) later received a purple heart for multiple combat wounds sustained in Europe.

she spoke English, she could only write in Hebrew. I was her only grandson.

I never knew my paternal grandfather, William, but he was said to be a stern individual who did not suffer fools gladly. My maternal grandfather, Louis, was a kind-hearted man, always with a joke, but he never was a success in business.

My father, Aaron (Harry) Herschel, who was born in Hoboken, New Jersey, and my mother, Frances, who was born in the Lower-East Side of Manhattan, were part of the “Greatest Generation,” having grown up during the Great Depression and then living through World War II. They were both born in their homes. My parents first met at James Monroe High School in the Bronx. After high school, they both went to work during the heart of the Great Depression. My father worked in the family clothing store as a salesman and tailor, and my mother was a bookkeeper and secretary for various companies, including the original Sheraton Hotel (Fig. 1H). My father was drafted during World War II, and my parents married during the war in 1943 (Fig. 1I).

I was born after the war, the first among the “baby boomers,” in Bronx Hospital (9 lbs., 12 ounces) located in the South Bronx, on November 9, 1946 (Fig. 1J). I was delivered by Dr. Jacob Clahr, who years later would become my patient. Bronx Hospital subsequently merged with Lebanon Hospital on the Grand Concourse to form the Bronx Lebanon Hospital, which is still thriving as an affiliate of Mount Sinai Medical School.

My mother had multiple miscarriages before my birth, and had to spend much of her pregnancy in bed. Years ago, during the time of my birth, the mother and newborn would spend at least a week in the hospital after the delivery. I was discharged with my mother after my ritual “bris” (Bris Milah, which is a Jewish ritual circumcision), performed at the hospital by a mohel (pronounced MOIL), eight days after my birth. A Mohel has expertise in the surgical performance of the circumcision, as well as religious training regarding the history and laws of the bris.

My original home was at 1239 Bronx River Avenue, not far from where the Pelham Bay subway line emerged from the underground, making a sharp turn over the river and continuing on over Westchester Avenue. The Pelham Bay line would be the subject of the movie, *The Taking of Pelham 123*. For the first two years of my life, I lived with my parents and paternal grandmother in the house my grandfather had purchased in 1925. My only faint recollection of that time was a visit to my maternal grandparents who were then living in Dorchester, Massachusetts.

In 1948 my parents moved two train stops east to 1134 Stratford Avenue in the Soundview area of the Bronx off Westchester Avenue (Fig. 1K). A short distance away, on Bruckner Boulevard, were prefabricated homes known as Quonset huts (Fig. 1L). Because of a housing shortage after World War II, these temporary shelters were used to house returning veterans and their families. The units were corrugated metal domes that got their name from the place where they were constructed, Quonset Point, Rhode Island. They were originally made by Seabees during World War II for military use. I remember walking among these homes with my father on his day off. Ultimately, as the housing shortage abated, these structures were all torn down.

We are also related to two other Frishman clans from Chicago and Denver. Jewish immigrants would often settle in Denver, Colorado if relatives had tuberculosis. A distant relative from the past was David Frishman (1861-1922), a famous Hebrew and Yiddish author (also spelled Frischmann) from Poland who edited multiple Jewish and Zionist publications. Frishman Street in Tel Aviv, Israel, one of the largest in the city, is named after David Frishman, and the street ends at Frishman Beach on the Mediterranean Sea. Anyone from the family who visits Israel gets their photograph taken on Frishman Street and then get their suntan on the Frishman beach. Once, while visiting Israel, I had my car “booted” in front of a McDavid’s restaurant on Frishman Street. At the stationhouse, the police



Figure 1J: An early childhood picture, at age four, at the Bronx Zoo.



Figure 1K: Tenement buildings on Stratford Avenue in the South Bronx where I lived until age nine. Our two-room apartment faced the rear. We had little heat in winter and no air-conditioning. Note the fire escapes at the front of the buildings. Many apartment homes in the Bronx were burned to the ground by arsonists during the 1960s and 1970s, one of the great urban tragedies.



Figure 1L: Quonset Huts in the Bronx near our apartment. These temporary shelters housed families during severe building shortages after World War II. (Image courtesy of the Leonard Lief Library at Lehman College. Reprinted with permission.)

apologized, and waved the fine when they found out my last name was Frishman.

The neighborhood where we lived at this time consisted of walk-up apartment houses where struggling families were doing their best just to get by. It was a tough area, and we would form block gangs for protection. We were organized not by nationality or religion, but by location, so a gang could include Catholics and Jews who lived in the same building or on the same block. Fights were a common occurrence among the gangs, and it often related to the frustrations of poverty. However, it was vital to remain part of the neighborhood crew. One didn't wander too far from your apartment house unless you were in a group. It simply wasn't safe.

My experiences growing up on Stratford Avenue sensitized me to the profound impact of poverty on physical as well as mental health. I was a witness, both within my family and without, to the devastating consequences of limited resources and opportunities, and the stress of a daily struggle for security. What I have since learned is that coping with instability greatly inhibits one's capacity to self-regulate unhealthy behaviors such as smoking, drinking, gambling, poor diet and so on. I truly believe smoking and stress caused the early and tragic deaths of many members of my family from heart disease. While poverty gave me a deep empathy for all who must confront and survive it, my main consideration, especially in those early years, was how best to escape it.

CHAPTER

7

DESTINY

"It was the best of times, it was the worst of times, it was the age of wisdom, it was the age of foolishness, it was the epoch of belief, it was the epoch of incredulity, it was the season of Light, it was the season of Darkness."

- Charles Dickens

For the first time in my life, I felt like I "fit in." During so many years of my early education, school had felt like a dangerous place, but the Bronx High School of Science (BHSS) was finally a safe place to be smart. BHSS is one of the most highly rated public high schools in the country and has eight Nobel laureates among its alumni, the most of any high school in the United States. Looking back, having the opportunity to attend BHSS solidified the early course I had set for myself to become a physician. Although high school is a very stressful period in every young person's life, and my experience was no different, my stress came in the form of academic challenges and the struggle to better myself rather than a struggle to simply survive.

In 1938, the BHSS was founded by the New York City Board of Education, under the influence of Dr. Morris Meister, and accepted academically-gifted students from all the New York City boroughs. BHSS was founded as a public, tuition-free school where qualified students could receive a specialized education that was usually reserved for the wealthy and privileged. In the search for talented students with a special aptitude for science, mathematics and overall intellectual acumen, the school required all applicants to take a written test in verbal ability and mathematical skill and reasoning. Students also needed to have strong academic records in junior high school, and to be recommended by their teachers and guidance counselors.

Most of the students came from the Bronx and Manhattan because of the school's location. Although BHSS started as an all boys' school in an antiquated, Gothic building (complete with gargoyles) on 184th Street and Creston Avenue in the west Bronx, the school started to accept girls in 1946, unlike the other specialized high schools Stuyvesant and Brooklyn Tech, which remained all male until many years later. A new BHSS building was erected in 1959 at 205th Street in the Bronx and houses the current school (Fig. 7A). I was in the first class that started high school in 1960 in the new building.

Ninety percent of the school's coursework was required, including four years of English, social studies and science, and three years of mathematics and a foreign language (I took a fourth year of French). In addition, all students were required to take courses in music, health education and hygiene, mechanical drawing and the dreaded science techniques laboratory. There were also advanced placement courses available where students could earn college credit.

I started BHSS in the tenth grade, having completed ninth grade in junior high school. The majority of my classmates were Jews, similar to me, descendants of immigrant parents and grandparents. I had a two-hour daily commute. Each morning I had to take the Pelham Bay subway line from Parkchester going toward Manhattan. The train was always full, and I never got a seat. I learned to read standing up, holding on to the overhead straps. At 125th Street, in Manhattan, I had to change to the Woodlawn-Jerome line past Yankee Stadium going uptown. I tried to do as much homework on

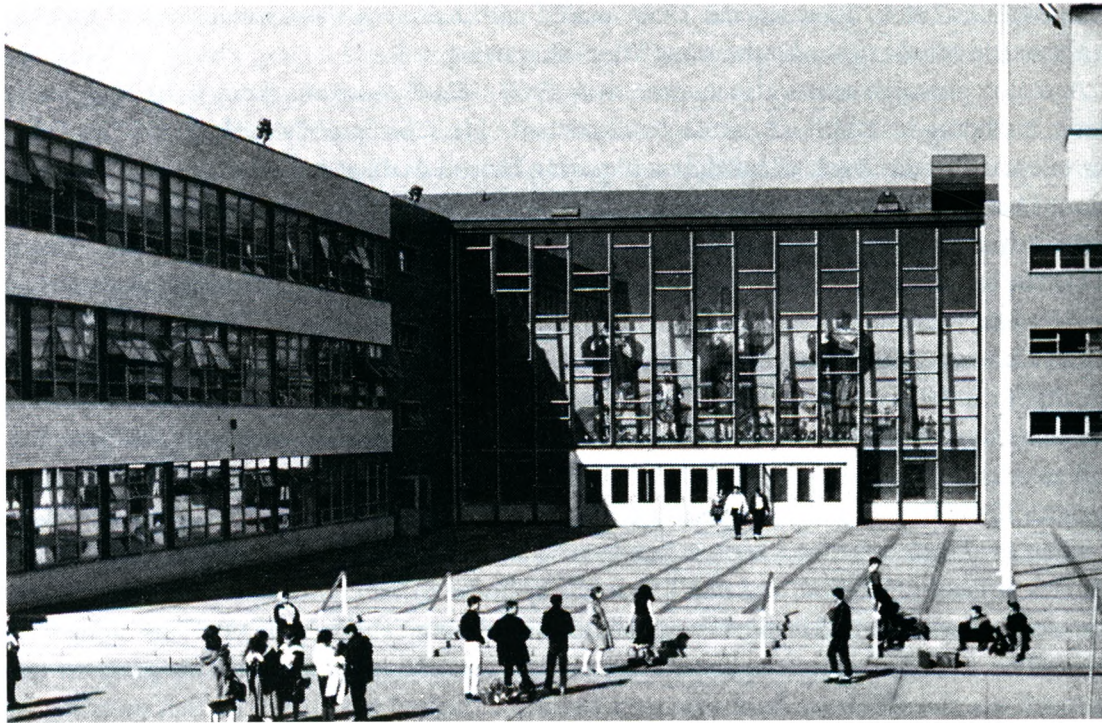


Figure 7A: The Bronx High School of Science. My class was one of the first to occupy the new building. Shown in the rear is a famous ceramic mural portraying some of history's greatest scientists. The school also has its own planetarium. Bronx Science alumni have won eight Nobel prizes, more than any other high school in the United States. (Image courtesy of the Bronx High School of Science. Reprinted with permission.)

the train as possible, despite the shaky ride. I always rode in the front train car so I could occasionally look out the front window, where I had the same view of the tracks as the motorman.

My sophomore year was eventful in many ways. First, a major hurricane struck the Bronx on the first day of school, and my train pass was blown out of my hand. I had to beg to get on the train. My academic subjects were geometry, world history (mostly European history with little discussion of anywhere else), biology, French and English, gym and mechanical drawing. My friend, Stevie November, who lived in my apartment building and was one year ahead of me, helped me to master the early concepts of geometry for which I will always be grateful to him. Mechanical drawing was a struggle, since I was never neat and had to do my drawings over and over until I got them right. I did well academically and had a 93 average. My English teacher, Mr. Canell, taught me how to read carefully, especially the assigned books by Dickens and Eliot.

One major event of 1960 was the presidential election with Vice President Nixon and Senator John Kennedy as candidates. Kennedy, a Democrat, was a hero to students my age. I had heard his late night nomination speech from a radio in our bungalow colony that previous summer. I always had an interest in the presidents and the election campaign was mesmerizing. The Bronx always voted with the Democratic Party (Franklin Roosevelt was a great hero for my parents and grandparents). What was of interest is that my father voted for Nixon, probably the only vote he received in the Bronx. Kennedy was the nation's president through my high school years. He wrote a letter to our high school

graduating class in 1963. They say the 1950s ended with Kennedy's assassination later that year and, indeed, the world would never be the same after his passing.

A major personal event also occurred in 1960. Dad's business went bankrupt, and he lost everything, including his old Ford, which he cherished. He subsequently took on two jobs as a men's clothing salesman to pay back all his debts, requiring him to work seven days a week. He never took a vacation. Dad was always the stabilizing force in the family for my younger sister and me, and for his own widowed mother and younger brothers. Although he was not the "moneymaker" my mother wanted him to be, Dad remained cheerful, upbeat and was always supportive, helping my sister and me with schoolwork, including writing, science and math.

On December 9, 1961, when I was 15 and a junior at BHSS, we had a family celebration on a Saturday night on the last day of Hanukkah. Dad came home late, but in time to participate in some of the festivities. Although he appeared well that night, it would be the last time I would see him alive.

The next morning, on a Sunday, he left early while we were all sleeping to go to his second job in Brooklyn. That afternoon, I was watching a New York Giants vs. Philadelphia Eagles football game on TV, when my Uncle Mac knocked on the door. I heard my mother scream in anguish. She told us Dad was sick at Jacobi Hospital, and that I should stay home to watch my younger sister, while she and my uncle went to visit Dad. After one hour, she returned home and told us Dad was doing well in the hospital, and we would all go to see him. This was just a momentary denial on her part, for moments later she cried out that Dad was dead. We later found out he had felt ill at work that morning, and had tried to drive home. He made it to the Whitestone Bridge, approaching the Bronx, and pulled over. He was brought to the hospital in an ambulance. It was believed that he either died from his heart attack en route, or in the emergency room.

At that moment, my entire world crashed. My protector and best friend was gone. After the initial shock, my mind was full of questions. Who would support us? How would we eat? Would we be evicted from our apartment? How would my mother deal with the loss? Would she fall apart? What about my younger sister? I felt as if I had walked from one room into another, never to go back. Now I was an adolescent boy with no father, with no role model to guide him. What about the dream of college? Dad and I had just spoke about him taking some time off during the coming summer so we could visit schools. As the darkness fell that afternoon, the pain in my heart was unbearable. How would we ever get through this?

When I awoke the next day, I thought that maybe it was a dream. As a young child, I often had nightmares of people dying, and would be relieved to find out upon waking that those deaths were not real. Then I heard my mother crying in the next room. It was not a nightmare, but something real. My beloved father was dead. In an attempt to comfort me, neighbors and relatives would say, "You are now the man of house." This was not comforting; it was terrifying.

The funeral was a blur. It was my first. It was pouring rain that morning, and I was numb to everything. I don't even remember how we made it to the funeral home. When we arrived, I heard the screams of my uncle, my Dad's brother, and my grandmother sobbing in front of his casket. I remember only a few words of the rabbi's eulogy, "today the heavens are crying for Aaron Frishman." Hundreds of people, relatives and friends, had come to pay tribute to Dad. I never realized how profoundly he had impacted on the many people who attended. When we followed the casket to the hearse, my mother fainted. I believed she was dead, and I that I was now orphaned.

We arrived at the burial site in a New Jersey cemetery in the pouring rain. After my father's casket was lowered into the ground, close relatives shoveled dirt on the coffin. As is the custom in our faith, I recited the memorial prayer, the Kaddish, which a son always recites for a departed parent. Just

then the rain stopped, the clouds parted and the chimes from the cemetery clock struck twelve times. Sunlight shined on Dad's grave. I realized that although Dad was gone, a greater force was watching over us, and perhaps, one day I would be able to discern a purpose for this tragedy.

After the untimely death of my father, my mother grieved deeply. For months I would hear her crying through the night, although she tried to be upbeat during the day so as not to upset my sister and me. Mom was only 43 years old when dad died, and she was left with two young teenage children. She became the sole supporter of the family with only the addition of a modest social security payment for orphaned children and my part-time job earnings as a delivery boy. The only money we had was from my father's small life insurance policy. There were no savings available because of my Dad's recent bankruptcy. During this time of loss, my mother did show great courage and determination, reassuring us that as a family we would persevere.

During the first days of mourning, I still felt great despair that was only heightened when I returned to school. In Dante's *The Divine Comedy* he called despair the greatest punishment that God could give; unlike physical pain, there is really nothing you can do to relieve it. I found solace during the first year of grieving by reciting the Kaddish prayer every day in synagogue during the early morning and evening services.

I tried to find meaning as to why such a profound loss would come to a family that was already suffering. It was as if a major earthquake had followed a hurricane. As the days and weeks went by, I started to discern a possible meaning to such a tragedy. As a result of my father's death, I had an even greater motivation to pursue a career in medicine to honor his memory and to help others. I would pay tribute to my father by trying to live each day by his high standards. I also felt that I now had an advocate in heaven that would never leave my side, and always watch over me. My dreams took on a new nobility and purpose; my father would not have died in vain.

I have since learned of a concept called "post-traumatic growth" or PTG. Although this concept is not new, Richard Tedeschi and Lawrence Calhoun coined the phrase and drew attention to the need to better understand the potentially positive outcomes that occur in the bereaved, even if the suffering and anguish over their loss persists. Some survivors will develop a new sense of purpose and, having endured the worst possible loss of someone they deeply cherish, can find new meaning and purpose in their lives and the strength to make positive changes within themselves and the world (*see Appendix B, #2*).

Although my junior year of high school was very challenging after losing my father, I also had a renewed sense of determination. In addition, I had received emotional support from my Uncle Mac and Aunt Lil, and from my rabbi. My uncle spent whatever time he had with me, knowing I had just lost my father. Uncle Mac was a man's man – a tall, lithe individual who owned a Sunoco gas station in the Bronx. He had four children of his own, but made sure I was comforted.

I was grateful that I had already had my bar mitzvah, so that I could honor my father by wearing tefillin and reciting the Kaddish for him in synagogue every morning and afternoon for 11 months. Saying Kaddish for your deceased parents ensures they will have a place in heaven. I would go to synagogue at 6:30 A.M., and could still make it to school on time because the rabbi arranged a car ride for me. In the afternoon, I would take the train home.

Looking back, I also realize that the insightfulness of my rabbi was a major influence both on me and on a teacher who was also grieving, Mr. Samuel Witkin. Mr. Witkin was 55 years old and had no children, but he had recently lost his mother. The rabbi sat us together in synagogue to recite the Kaddish, and we helped one another to cope during this very difficult time. I see now that pain, as awful as it is, makes us more connected and empathetic to others, especially those who are suffering. I

will always be grateful to Mr. Witkin, and my rabbi, for their kindness and generosity of spirit.

My grades dropped somewhat, but I maintained over a 90 average. The hardest course I took that year was the science techniques lab, where we had to design and build a machine. I got through the course without the help of my father, and because I had the easiest teacher, Mr. Bonacci. I built an electronic metronome which actually worked. That year I was elected to Arista, the school's honor society, on my first try.

Socially I did not interact much with the girls in high school, some of whom were very attractive. With my academic demands and my father's death, I had no time for dating. In fact, most of my classmates had no time for dating. The girls I interacted with were my sister and female cousins. I did go on one date (a pseudo-prom) with Susan Fleckman, the smartest student in the class behind me. She wore a beautiful dress. A public bus was our mode of transport; there were no limousines to proms in those days.

One of the interesting parts of the school day was lunchtime in the cafeteria, where we were assigned a permanent seat. The student who sat across from me, Peter Lesser, was a San Francisco Giant baseball fan, and we argued for three years about who was the better player, Willie Mays or Mickey Mantle. Luckily, the Yankees beat the Giants in the World Series during my senior year, so I was able to win that argument. Mickey Mantle also won his third most valuable player award.

With my newfound resolve to pursue scientific research, I was awarded a National Science Foundation Student Grant during the summer between my junior and senior year. Both of my grandfathers, father and uncles all had heart attacks before the age of 60, so I was very motivated to explore the origins and potential cures for heart disease. As part of the grant, I did cardiovascular physiology research at Hunter College and Cornell Medical School on a project entitled, "Cardiac Manifestations of Hyperthyroidism." It was my initial foray into cardiac research, and I enjoyed every aspect of the experience. I had found my destiny. I knew then I would become a cardiologist, and I knew I would not stray from this path.

My Dad and I had always spoken about visiting colleges the summer after my junior year, but now he was gone. While thumbing through various college catalogues, I read that Boston University (BU) was offering an innovative six-year liberal arts-medicine program where one would save two years of undergraduate schooling while being guaranteed admission to medical school if all major courses were passed during the undergraduate portion of the program. Similar programs were started in 1961 at Northwestern and Johns Hopkins universities. Johns Hopkins gave up on the program very quickly, so the two programs being offered when I was applying were at BU and Northwestern.

Dr. Goodman, who had initially inspired me to consider becoming a physician at the age of seven (*see the Prologue*), advised me to pursue the BU program. Raised in Pennsylvania, Dr. Goodman remembered how difficult it was for him to be admitted to a medical school in the United States. Although I had felt I should go to college in New York City to be closer to my family following my father's death, I put in an application to the BU program, and received an immediate interview. Because I so desperately wanted to be a physician, I decided to visit BU on my own. I was only 15 when I interviewed for this prestigious program.

I had another fateful experience on the bus trip to Boston for my interview. During the initial part of the drive, I had a pleasant conversation with the man sitting next to me. He mentioned he was going home to his family. It was an overnight trip, so we both soon fell asleep. When the bus arrived at his stop in Worcester, Massachusetts, he remained motionless. It became apparent he had died in his sleep, most likely from a heart attack. When I realized what had happened, I couldn't help but relive my own experience, and my thoughts immediately went out to his family. Heart disease is a relentless

enemy. For me, it was a further call to action and a reminder of the devastation of this horrible disease.

I took six major subjects in my senior year of high school, continued to say Kaddish for my father and had two jobs as a delivery-boy at a pharmacy and at a grocery store. My delivery vehicle was a bicycle with a big basket on the handlebars. Admittedly, the pharmacy deliveries were much more accommodating than the groceries. I also learned a great deal working in a pharmacy that would be helpful to me in later years.

The highlight of my senior year was being chosen co-editor-in-chief of the school's yearbook, *The Observatory* (Fig. 7B). The other co-editor was Richard Wind who would later become an obstetrician-gynecologist. This experience influenced all the writing and editorial work I would do in the years to come. In those early days of yearbook design, each page had to be laid out like a blueprint with photos and text. I had a deadline to be sure the yearbook was printed before graduation. I had to find the time and energy to put the book together in addition to the pressures and challenges of academic and home life. Fortunately, it was the 25th anniversary of BHSS, its "silver jubilee year," which gave us a theme for the yearbook. I had a wonderful faculty advisor, Nathan Glicksman, an English teacher, who would become my patient. I also had my own office, as did the editors of the school newspaper. This is the editorial I co-authored for the year book:

The 25th anniversary of any institution is naturally a time of great celebration. Since this year is Science's Quarter Century Jubilee, we strove not to be an exception to this maximum. We recall that ours is a special school, created to meet the needs of more advanced students in the public school system.

However, with all the celebrating and pounding one another in the back, we neglected two things. First, we looked back to 1938, the year of the school's creation and compared it directly with 1963. This is not essentially wrong. It is a good way of showing the vast improvements in the school between these years. However, we tend to forget that these changes did not occur overnight. It took 25 years, one quarter of a century of hard work and dedicated effort by scores of teachers, administrators, parents and students. If we compare each of the 25 years to its direct predecessor, we would not notice much change. Each year brought some innovation, some progress in making Science what it is today.

Second, during these 25 years, many people have come to praise the school. They have praised the facilities, the faculty, the administration, the parents, and the curriculum. Whereas all these deserve much praise, the main factor contributing to its renown is too often neglected. This factor is Science's students. Given all these facilities, faculty and administration, without its students, Science would be merely another well-run school. Not only while in Science, but also as alumni, Science students have excelled. For each of the past 24 classes, there is a long list of hard-working achievers.

However, we must not rest on our laurels. As each preceding year has added some piece to the entity that is Science, so we hope that in each of the next 25 years, Science will progress as much as it has in its first quarter century. It is up to us, the class of '63, as graduates and former students of Science, to continue to work toward the evolution of Science as not merely an excellent school, but as a widely known institution. Whereas, at Science, progress is not our most important product, it comes very close, and we should bear that in mind.

The editors-in-chief of *Observatory* would like to extend, on behalf of the Class of '63, our congratulations to the Bronx High School of Science upon its 25th Anniversary Silver Jubilee Year, and our best wishes for the next 25 years.

I graduated BHSS with honors in 1963 (Fig. 7C), and the commencement was held in the Loews Paradise Theatre on the Grand Concourse. In looking back, BHSS was the most competitive school I ever attended and so some of the smartest people I ever met were my classmates. The school was a true meritocracy, where hard work and perseverance were rewarded, no matter how poor or disadvantaged you were. The school still remains a place for aspiring children of immigrant parents. I was disciplined at BHSS to make efficient use of time, and to compete with myself.



Figure 7B: I was the co-editor of the Bronx High School of Science yearbook, *Observatory*. I am seated on the right. My fellow co-editor, Richard Wind, is seated on the left. Richard later became an obstetrician/gynecologist. The yearbook faculty advisor was Mr. Nathan Glicksman (center), a demanding English teacher. He later wrote one of my letters of recommendation for college. Another member of the yearbook staff was Barbara Lewis (standing at left). Her son later became my student at Einstein. (Image courtesy of the Bronx High School of Science. Reprinted with permission.)

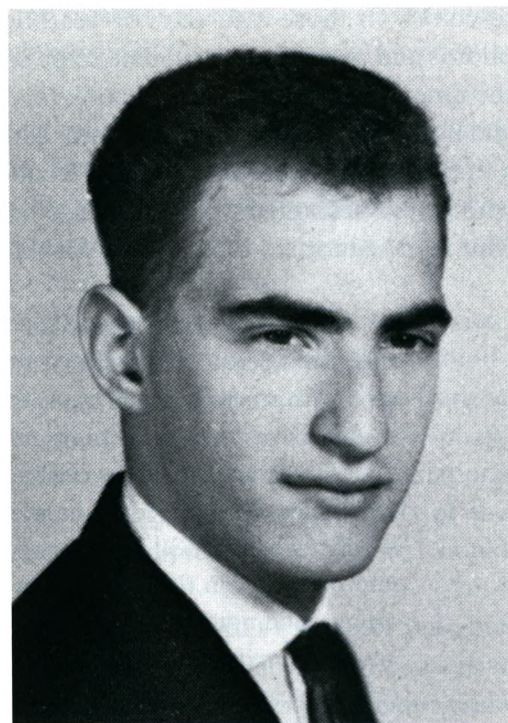


Figure 7C: My Bronx High School of Science yearbook picture, 1963. (Image courtesy of the Bronx High School of Science. Reprinted with permission.)

CHAPTER

8

ALL IN

*"It is very difficult to slow down. The practice of medicine is like the heart's muscle contraction
- it's all or none."*

- Béla Schick

I left for Boston by bus to begin college in September, 1963. After my fateful trip to interview for the six-year program at BU, in the spring of 1963, I was accepted to both college and medical school at the age of 16. My mother, a recent widow, had also encouraged me to go to school in Boston, at a great personal sacrifice to her. I remember how sad I was to be leaving my mother and sister back in the Bronx.

I was the first member of my BU class to check into the dormitory, because I had been given a work scholarship award and had to start my employment as a part-time telephone switchboard operator and as a kitchen worker. I was the only member of my class to have a job. The dormitory I stayed in was Myles Standish Hall which had previously been a residential hotel made famous in Arthur Miller's play, *Death of a Salesman*. The dormitory was arranged into suites, and I was assigned to a five-room suite with four other roommates. We each had our own room.

There were 48 students in our program, 40 men and 8 women. The men were assigned to the same floor in the dormitory. We had our own classes, ate together and, for the most part, were separated from the other freshman students at the university. I had wonderful roommates. Three of us stayed together for the entire six-year program. My roommates were not only supportive of me; they were also peer role models. George Hines, a graduate of Stuyvesant High School in New York, would become a renowned cardiovascular surgeon, and another, Ed Forbes, a distinguished general surgeon. There was a high attrition rate in the program: of the 48 who started, 28 would finish. The high dropout rate was due, in part, to the realization of the students of the commitment required to be a physician, and, for some unfortunate students, psychiatric problems. One of my roommates dropped out because of academic issues, and he was replaced by another student, Jeffrey Nurenberg, who would become a prominent psychiatrist and psychoanalyst.

The first year of the program was spent in the College of Liberal Arts located on Commonwealth Avenue (Fig. 8A). The course work included physics, physical chemistry, European history and English. During the first summer, I took courses in government, Spanish, sociology and English literature. Physical chemistry was the hardest course I have ever taken, but I received an A- and also made the Dean's List. My physical chemistry professor, Dr. Alfred Prock, would teach the course to BU six-year medical students for 40 years.

During our freshman year, John F. Kennedy was assassinated. We were told about it on Friday, November 22 at 1:00 P.M. by Dr. Prock as we entered his classroom. The United States has never been the same since Kennedy's assassination. Since Kennedy was from Massachusetts, the assassination and aftermath were even sadder.

I persevered through the freshman year, always keeping my nose to the grindstone. I did not want to disappoint myself or my family. That first summer I worked as a desk clerk in the dormitory



Figure 8A: The campus of Boston University in the late 1960s. The Charles River is in the foreground. I attended the undergraduate school of liberal arts for two years. (Image courtesy of Boston University. Reprinted with permission.)

while attending classes. My family was in Rockaway, but I only had three weeks of vacation before my sophomore year began, so I couldn't join them until mid-August.

I continued to do well in my sophomore and final college year (1964-65). The second year courses included organic chemistry, biology, psychology and anthropology. During the summer we took a course called Health and Society, and I was assigned to work at Bridgewater State Prison Hospital, a facility for the criminally insane. Bridgewater was a frightening place; at the time, some inmates were kept in cages. Our project, directed by the legal psychiatry department of BU, was to determine if any of the inmates were sane and could therefore be released. Albert DeSalvo, the Boston Strangler, was an inmate at Bridgewater at the time. He was killed during an attempted prison escape.

After two years of college, which included the summer coursework, I started medical school in September, 1965 at the age of 18 (Fig. 8B). The great Northeast blackout occurred two months later. Our class included 72 students, 40% of whom were from the program, and 60% who had been admitted by the traditional four-year college route. The program students were at a disadvantage during the first term. The initial course work was gross anatomy (six days a week), histology and neuroanatomy (Fig. 8C). We had to buy our own microscopes. Many of the conventional students had taken comparative anatomy in college courses, giving them an advantage. Our group struggled, and I worked very hard to pass the anatomy courses. However, by the second term, when we took physiology and biochemistry, there was little difference in how we performed compared to our older peers.

During the summer after my first year of medical school, I took additional liberal arts courses. It was the summer school coursework that had allowed us to accelerate and ultimately receive our undergraduate degrees. I also got a job as an emergency lab technician at the New England Deaconess



Figure 8B: The construction of the Boston University School of Medicine instructional building, finished during my senior year (1968-1969). At right are the old buildings where I took my basic science courses. The Pavilion Building at Boston City Hospital, where I completed my third and fourth year medicine rotations is in the foreground. In the rear is University Hospital where I completed my fourth year surgery rotation. (Image courtesy of Boston University. Reprinted with permission.)

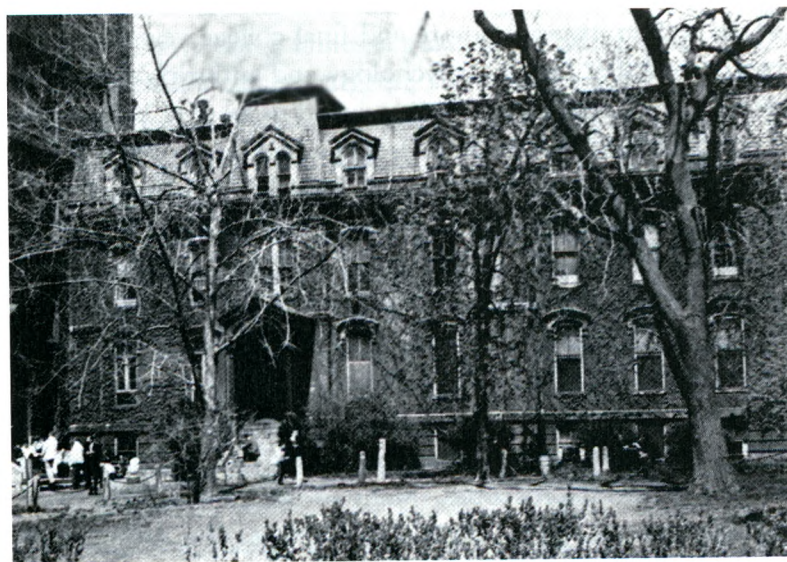


Figure 8C: The Boston University School of Medicine's Building A where I took gross anatomy in the basement lab during my first year of medical school. (Image courtesy of Boston University. Reprinted with permission.)

Hospital and the Joslin Clinic (a famous diabetes facility), a job I kept part-time, throughout my final three years of medical school. Both the New England Deaconess and the Joslin Clinic were Harvard Medical School affiliates. I became an expert phlebotomist and could carry out lab tests in the clinical chemistry lab, the microbiology lab, the hematology lab and the blood bank. I learned to respect the hard work and precision necessary for a hospital lab to function. I also learned how best to order lab tests in my future clinical work, while also recognizing their limits.

My medical school academic performance really took off in my second year. I was first in my class in pharmacology, and did well in microbiology, pathology and pathophysiology. Our course director in pathology was Dr. Stanley Robbins, the editor and co-author of the famous textbook, *Pathologic Basis of Disease* (Fig. 8D). We also began physical diagnosis. Unlike the medical school curriculum of today, where students are exposed to patients early, we had no contact with patients until physical diagnosis. Also, the symbol of the physician at the time, was the black bag not the white coat (because physicians still made house calls). We did wear short white coats as second-year medical students, and wore civilian clothing as first-year students.

At the end of the second year we had to take part one of the National Board Exam, and over a three week period before the two day test, I never studied so hard. I passed with a highly satisfactory score, and celebrated afterwards by visiting the 1967 World's Fair in Montreal, Canada. Students who had failed the exam were left back to repeat the second year of medical school.

The summer after my second year of medical school, I worked at Boston State Hospital as a student psychiatry trainee supported by a grant. I have always enjoyed psychiatry and had already worked at Bridgewater State Hospital. I always felt that psychiatric disease in otherwise healthy individuals was such a tragedy. Although psychoanalysis was popular then, the medications that were being used were the first generation of antipsychotic drugs (phenothiazines) and antidepressants, which had numerous toxicities. When I tried to befriend a patient who was an engineer outside the hospital, the teaching attending warned me to keep my professional distance. I might have caused a psychotic relapse in my patient by not being readily available to help him when needed, because of the demands of my school work.

Third year began the major clinical clerkships. At age 20, I started surgery at the Boston Veterans Hospital. We were mixed with third year Tufts medical students who also rotated at the hospital. I liked the intellectual part of surgery, but didn't enjoy some of the duties assigned to medical students. We were required to scrub in to surgery in order to hold retractors, metal instruments that would hold back organs to allow the surgeon room to work; doing this for hours, without receiving any teaching. If I asked questions, I was often considered insubordinate. We had a great chief of surgery at the Veterans Administration hospital, Dr. Donald Nabseth. The chairman of surgery at the medical school was Dr. Richard Egdahl, (Fig. 8E) an endocrine surgeon who came to BU from the Medical College of Virginia, along with Dr. John Mannick, a vascular surgeon who would subsequently become chief of surgery at the Peter Bent Brigham Hospital and at Harvard. Dr. Egdahl edited a comprehensive textbook that included classical articles from the surgical literature. I also interacted with some surgical residents who had just come back from military duty in Vietnam. Many of them were very angry about their wartime experiences.

While I was in medical school (1965-69) the Vietnam War was at its height. The war started over the mistaken premise that the Communist Party was trying to spread its political influence over all of Southeast Asia (the domino theory), and Vietnam was the line drawn in the sand by the United States. Anger over the military draft and the war would cause major student protests on campuses all across the country (Fig. 8F). Many of my former high school classmates tried to avoid the draft by

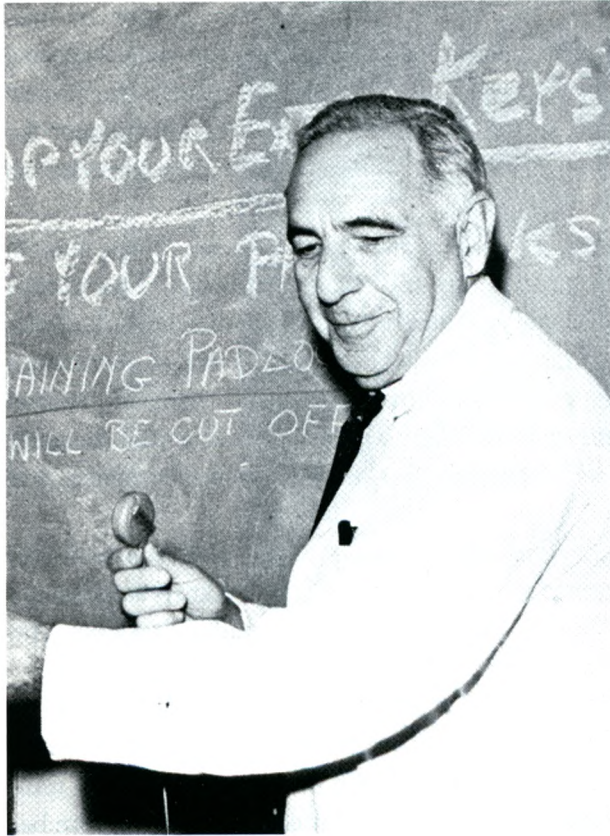


Figure 8D: Dr. Stanley Robbins, our pathology professor, who edited the renowned textbook still used all over the world. (Image courtesy of Boston University. Reprinted with permission.)

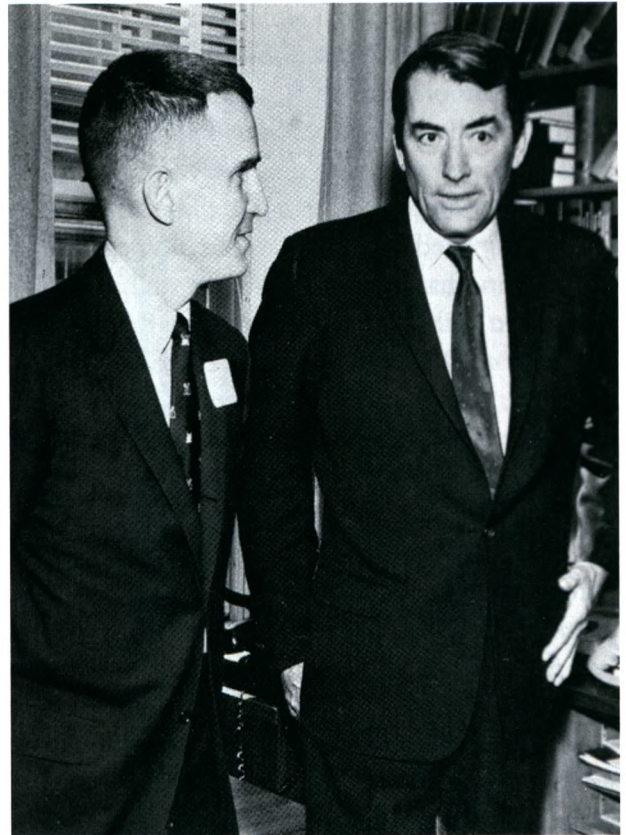


Figure 8E: Dr. Richard Egdahl, then chairman of surgery at Boston University School of Medicine with actor Gregory Peck. (Image courtesy of Boston University. Reprinted with permission.)

going to Canada and other countries. During the time of the war, every male physician was eligible for the draft, but I was deferred while still in medical school. The military needed surgeons for combat duty, and would draft surgical residents in the middle of their training. Many of these draftees were upset about having their training interrupted. Although it was set in the Korean War, the television show *MASH* accurately depicted the frustrations, anger and stress experienced by surgeons in combat. Only humor could make the experience tolerable. After their military service was complete, these partially-trained surgeons returned to civilian hospitals to complete their residency.

During the 1960s while I was in college and medical school, not only were students protesting the war, but also great social changes were taking place, including the beginning of the civil rights movement, and equal rights for women and gays. The Medicare and Medicaid Programs were started in 1965, and major civil rights legislation was passed. For this reason, 1965 was a landmark year for great social change. Lyndon Johnson, one of my favorite presidents, was the political impetus behind these great government programs, (The Great Society) which also included the Head Start Program for disadvantaged children. Johnson believed that access to health care was a right and not a privilege, something that I, too, strongly believe in. Tragically, Johnson also supported the war in Vietnam, a

position which would ultimately cause his political demise.

As a college and medical student enmeshed in my studies, I was not an active participant in the protests going on at the time (Fig. 8G), but a passive observer (at heart, I am a pacifist). I didn't truly support the war, but as a future physician felt it was my obligation to remain apolitical regarding the conflict, since I would one day be asked to take care of patients and not be an active combatant. One of my new roommates during medical school tried to protest the war by setting himself on fire in front of the University Chapel. He survived, but was thrown out of school. I never heard from him again.

The surgery rotation also included many of the surgical subspecialties such as ophthalmology, otolaryngology, orthopedics, neurosurgery, thoracic surgery, urology and anesthesia. These one-week experiences were not really sufficient. I was most impressed with the cardiothoracic surgeons who were the early pioneers of open heart surgery. I never saw a group of individuals who worked so hard in caring for patients; operating all day, and then staying up all night at the patient's bedsides to monitor their progress.

Surgery was followed by obstetrics/gynecology, which I took at the Framingham Union Hospital. Only two students were assigned at a time so we got to be present at many deliveries. We also worked at a gynecology clinic in a women's prison and, being a young student and rather naïve, I was extremely flustered after obtaining the sexual histories of the inmates.

The next clinical rotation was pediatrics. I was assigned to the Boston City Hospital, where I was overwhelmed by the extent of disease and social deprivation I found there (Fig. 8H). I watched children with cystic fibrosis suffocate in their own secretions, and saw the futility of treating children with leukemia and lymphoma, all conditions that are well managed today.

In addition to the suffering of the patients, I also witnessed a most tragic event involving my supervising intern. A three year old child was admitted to the pediatric ward from the emergency room with a high fever and lethargy. As students, we were responsible to do the basic lab work of all new patients, while the interns performed the initial history and physical exam. I drew blood from the child in order to perform a complete blood count and differential in the house staff lab. The white blood cell count of the patient was elevated, a sign of possible infection, and I prepared a Wright's stain



Figure 8F: The Boston University Student Union. There were daily rallies during the 1960s to protest the Vietnam War. (Image courtesy of Boston University. Reprinted with permission.)



Figure 8G: Students protesting the Vietnam War in Boston during the 1960s. (Image courtesy of Boston University. Reprinted with permission.)

of a blood smear. Under the microscope, I observed blue debris within the neutrophils. Thinking my blood smear was inadequate; I did repeated Wright stain preparations, but could not remove the debris. I thought there was a problem with the stain and went downstairs to tell my intern, Kathy Cocchiarella. Kathy was an effervescent blonde woman who had graduated in the first class of the Boston University six-year medical program. I was a member of the third class, two years behind her.

When I arrived on the ward, Kathy was performing mouth-to-mouth resuscitation on the child, who had just suffered a cardiac arrest. The child died without an initial diagnosis being made. However, on closer examination, the child had petechiae, red spots that appear on the skin as a result of bleeding, and the diagnosis of meningococemia was suspected. Within the neutrophils, the gram-negative meningococcus diplococci will stain red with a Gram stain, but will stain blue with Wright's stain, and that was the debris I was seeing under the microscope. Inadvertently, I had made the diagnosis of meningococemia, but didn't realize it initially.

That night after the child's death, Kathy developed a headache and high fever in her Boston apartment. Her husband, who was a pediatric resident, rushed her to Massachusetts General Hospital where she, too, died within an hour of arrival from meningococemia. She had received no previous antibiotic prophylaxis.

The next morning, at conference, the Chief of Pediatrics, Dr. Horace Gezon, announced Kathy's death to the ward team, calling her "a saintly physician, a wonderful teacher, and a beloved human being who died trying to revive a child, putting herself in harm's way." Interns, residents and medical students can easily put themselves in grave danger when caring for patients. During the great influenza epidemic of 1918-1919, many interns and residents died in the line of duty from respiratory failure. The night float system was started at Boston City Hospital in the 1920s because some interns were diagnosed with cavitory tuberculosis, which was felt to be aggravated by fatigue and exhaustion. In more recent years, interns were exposed to hepatitis and HIV because of contaminated needle sticks. Health workers have also contracted Ebola virus infections in endemic areas.

I will always remember Kathy and her noble act. Had she been a member of the military, she would have won the Congressional Medal of Honor for her bravery. Subsequently, I have treated many patients with meningococemia, and being experienced, have never lost a patient despite the severity of that illness. I enjoyed working in the field of pediatrics, but was always saddened by Kathy's death, which showed the risks we sometimes take when caring for patients.

Pediatrics was followed by my third psychiatric rotation located at Medford State Hospital in a Boston suburb. I was greatly affected by the large number of middle-class patients we treated with mental illness there, with family backgrounds similar to mine.

My final rotation for the year was internal medicine. My clerkship was at Boston City Hospital (Fig. 8I) where we were mixed with Harvard and Tufts students who also had clinical rotations at the same facility. Today, the only medical school affiliated with the hospital is BU. The medicine rotation was very exciting, and we were given a great deal of responsibility as students. Essentially, the house staff ran the hospital, with attending physicians (we called them visits) who were present only part of the day. Two of my attending physicians were Dr. Franz Ingelfinger, a gastroenterologist (Fig. 8J), and Dr. Arnold Relman (Fig. 8K), a nephrologist, who both would become editors-in-chief of the *New England Journal of Medicine*. Other notable attendings were Dr. Norman Levinsky, a nephrologist who would serve as chair of medicine at BU for 25 years, Dr. John Harrington, another nephrologist who would become dean at Tufts, and Dr. Aram Chobanian, a cardiologist, who would subsequently become dean of the medical school and president of BU (Fig. 8L).



Figure 8H: As a third-year medical student working at an inner-city pediatrics clinic. (Image courtesy of Boston University. Reprinted with permission.)



Figure 8I: A student ceremony on the Boston University School of Medicine campus. The backdrop is the old Boston City Hospital, one of the most famous clinical and research institutions in the U.S. (Image courtesy of Boston University. Reprinted with permission.)

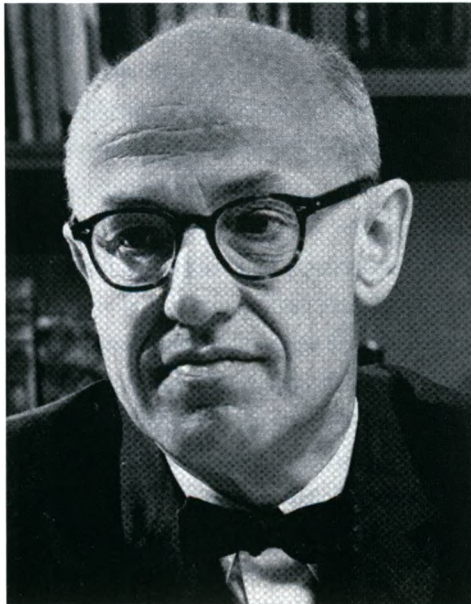


Figure 8J: Dr. Franz Ingelfinger, a gastroenterologist, who was chief of medicine at Boston City Hospital during my early years of medical school. He would later become editor-in-chief of the *New England Journal of Medicine*, and both his son and daughter-in-law would become my students. (Image courtesy of Boston University. Reprinted with permission.)

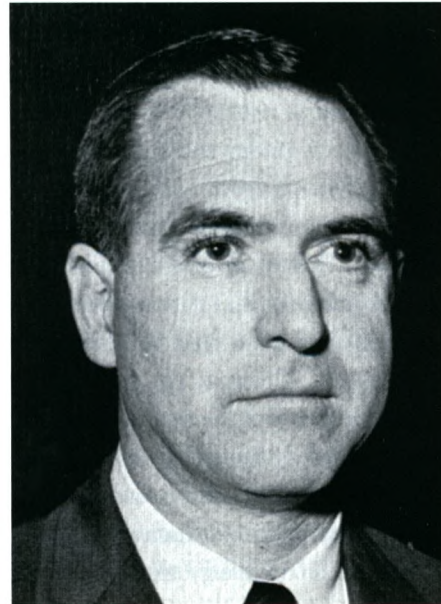


Figure 8K: Dr. Arnold Relman, a nephrologist, who was chief of medicine at Boston City Hospital when I was a third year student. He, too, became editor-in-chief of the *New England Journal of Medicine*, where many of my papers have been published. (Image courtesy of Boston University. Reprinted with permission.)

At Boston City, we also spent a great deal of time caring for outpatients in the clinic, an important part of internal medicine training. We had lectures at the school every morning at eight o'clock before going to the hospital. I also continued to work one to two nights a week and on weekends as an emergency lab technician at the New England Deaconess Hospital and Joslin Clinic, the highest paying student job at \$3.25 an hour. I learned to obtain a capillary blood specimen from an earlobe stick rather than a stabbing a finger.

Overall, the third year of medical school was quite a fulfilling experience. Though I had an interest in pediatrics and psychiatry, I was still poised to pursue a career in internal medicine and cardiology.

Notable historical events which occurred during the spring of 1968 were the assassinations of both Martin Luther King and Robert Kennedy. Dr. Martin Luther King had received his Ph.D from Boston University, and many of my teachers knew him. I consider him to be one of the four greatest individuals of the twentieth century (the other three on my list were Mahatma Gandhi, Anwar Sadat, and Nelson Mandela, all champions of peace). The student protests of the 1960s were also in full swing, but we were sheltered from the outside turbulence by being in medical school.

That year I was also hired to be a first-aid attendant at the Boston Garden sports arena, a job passed down by an upper classman, which gave me the opportunity to watch wrestling matches, hockey and basketball games, the circus and rock concerts for free. We were paid \$10 an event, and were entitled to one free hotdog and could sit in the best seats. The job was one of the most exciting I ever had in medicine. Because of the rigid call schedules for residents, which prohibited any moonlighting, students were hired for this job and not house-staff. I'm still a big wrestling fan.

Fourth year began with an elective in pediatric research. For the first time medical students had four to five months of elective time instead of all required clinical rotations. In the past, all the third year clinical rotations were given again in the fourth year, albeit with more responsibility. My research project, under the supervision of Drs. Robert Klein and Horace Gezon, was trying to identify when the newborn colon was colonized with bacteria, and how the type of bacterial colonization, both aerobic and anaerobic, contributed to the presence or absence of neonatal diarrhea. The work was presented but never published, because I had difficulty with the anaerobic cultures. It illustrated for me the frustrations that researchers often experience in their investigations.

At BU we also had to write a mandatory doctoral thesis which could be based on original or library research. Because my pediatric research project had not really worked out, I did a library project on thyrocalcitonin, a newly discovered hormone. My faculty advisor was Dr. Isadore Rosenberg (Fig. 8M), a noted thyroid specialist from Boston City Hospital. In subsequent years I would mentor over 500 students, residents and fellows in thesis projects. I always felt this was an important part of undergraduate medical education, and also provided the opportunity for faculty to work one-on-one with students. However, I do feel the experience should be elective, and not mandatory, as we demonstrated in an article written about medical student theses (*see Appendix C #90*).

Following the pediatric rotation I had my fourth year medicine rotation, which was a cross between a clerkship and a sub-internship. Dr. Levinsky was my chief, and would write my main letter of recommendation for internship. These were the days before there was an intensive care unit (ICU). Following a heart attack, patients were treated in oxygen tents on busy hospital wards of 30-40 patients. There were few private rooms available except for quarantine purposes. We did not have the ethical dilemmas of keeping patients alive artificially, because there were few intensive care procedures available. For example, hemodialysis (or dialysis), a procedure in which a machine filters wastes, salts and fluid from the blood when the kidneys are no longer healthy enough, was reserved only for

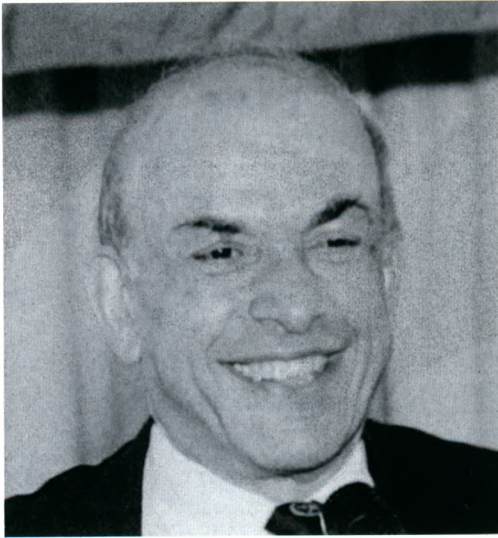


Figure 8L: Dr. Aram Chobanian, my teacher at the Boston University School of Medicine, who ultimately became dean of the medical school and president of the university. One of the most effective individuals I ever met. He raised the medical school to national prominence, and helped found the Boston Medical Center. (Image courtesy of Boston University. Reprinted with permission.)



Figure 8M: Dr. Isadore Rosenberg, at left, a prominent thyroid specialist at Boston City Hospital who would serve as my medical school thesis advisor. From this experience, I went on to mentor over 500 students, from 1976 to the present, as a research thesis advisor at Einstein Medical School and New York Medical College. (Image courtesy of Boston University. Reprinted with permission.)

patients who were kidney transplant candidates. Everyone else died of kidney failure. I had a patient turned down for dialysis and kidney transplant because he was a homosexual. Homosexuality at the time was considered a mental illness; autism was considered a form of childhood schizophrenia, and these patients were often hospitalized in psychiatric hospitals.

Following fourth year medicine, I had a family medicine rotation called The Home Medical Service. This has been a BU rotation since the 1880s. We made house calls by ourselves, visiting patients with various medical problems. Carrying our black bag and wearing a business suit, each of us would visit patients in the housing projects and report to the family medicine attending at the home base, who would sign our prescription pads. I learned how important home visits are, especially in caring for patients with chronic illnesses. You really don't know a patient well until you know the family and home situation. I remember one house call where I was greeted by a naked woman at the door. I quickly turned around and ran down the stairs. If we had to draw blood from a patient at the home, especially one on furosemide (a medicine to treat fluid retention), you had to be good at it, because there was no one there to help you.

Following the Home Medical Service, I had a month of vacation in December, 1968, during which I also scheduled my interviews for house staff positions (internship). I applied predominantly to positions in New York and stayed with my mother and stepfather in their apartment that month. My mother had remarried in 1966 after a whirlwind courtship that I had helped along. My stepfather,

Irving (Izzy Zucker), was a wonderful man. Izzy had a son, who was a graduate of Hahnemann Medical College ('66), and Eli would serve as a mentor for me, and continues to be one today. He is now a retired family practitioner in Philadelphia.

The interview season was challenging, and I would eventually match at Montefiore Hospital in the Bronx for my house staff training. During that month of vacation, I also put together my class yearbook where I was once again the editor-in-chief.

Of importance, in late 1968 Nixon made his political comeback with his historic presidential election victory over Hubert Humphrey. In 1969, I started out with my second psychiatric rotation at Boston State Hospital, followed by my fourth year surgery rotation at Boston University Hospital (Fig. 8N). I had three months left after completing my mandatory fourth year rotations, and took three one-month electives in renal medicine, urology and cardiology. In the renal rotation, I learned how to really examine a urinary sediment. In urology, I learned to do a comprehensive genitalia exam and how to put in urinary catheters (which helped me as an intern), and in cardiology I learned the fundamentals of electrocardiography (EKG) from a great preceptor, Dr. Burton Polansky.

On May 18, 1969, I graduated simultaneously from both college and medical school (Fig. 8O). I received my Bachelor of Arts with a major in medical science, and my Doctor of Medicine (M.D.) degree. I had successfully completed the BU six-year program at age 22. Sadly, my stepfather could not attend the function because he had just had a heart attack a few weeks earlier at age 58. My surviving grandmother also could not attend as she had angina pectoris (chest pain) and could not travel. My sister, who had graduated that year from Lehman College of the City University of New York, and my mother attended the ceremony, as did my girlfriend at the time.

My mother and sister had seen me off when I started BU in 1963 and were there when I graduated in 1969. Twenty-eight of the 48 students who had initially started the program with me graduated. Senator Edmund Muskie, who had just run for Vice President, was the commencement speaker.

I have several important comments to make regarding my six years in Boston and on undergraduate medical education in general.

1. Was the BU six-year program a good idea? For me, it was, and I handled the work well. I was a bit awkward socially, but did have girlfriends. Because I was only 22 when I graduated, I decided to pursue an academic medicine career first, to see if I would like it. Had I been older, I might have gone right into private practice.

2. How does the medical school experience of the 1960s differ from what goes on now? Over time, there have been many changes for the better. Years ago we were taught by eminence not always by evidence, but we had spectacular teachers at the bedside who were great examples of clinical prowess. One role model was Dr. Louis Sullivan, a hematologist, who would become Health and Human Services Secretary under George H.W. Bush. He would write one of my letters of recommendation for house staff training (Fig. 8P).

In the 1960s we did not interact directly with patients until well into the second year of medical school, and never truly understood the relevance of basic science that was taught as a separate educational block. Today, students interact with patients early in their medical school studies. Students also have courses in ethics and the history of medicine, which were never offered to us.

3. What about working to support oneself in medical school? Extramural work puts a great additional burden on students. To even the playing field in school, it is far better that students don't work, and find other sources of financial support, such as scholarships and loans.

4. What advice would I give to medical students today? Find balance in your life. In medical school one has to work hard to succeed, but one needs to also find time to read novels, play sports (I



Figure 8N: University Hospital, a major teaching affiliate of the Boston University School of Medicine, where I took my fourth-year surgery rotation. (Image courtesy of Boston University. Reprinted with permission.)



Figure 8O: My graduation picture from medical school at age 22. As in high school, I was the editor-in-chief of the class yearbook. (Image courtesy of Boston University. Reprinted with permission.)



Figure 8P: Dr. Lous Sullivan, a prominent hematologist who was my instructor in pathophysiology. He subsequently became the first dean of the Morehouse School of Medicine in Atlanta and served as the Secretary of Health and Human Services under George H.W. Bush. (Image courtesy of Boston University. Reprinted with permission.)



Figure 8Q: Medical school wasn't all studying for exams. This is a photo of the medical school ice hockey team. I didn't know how to play, but I could skate. Two of my roommates were George Hines (center, wearing glasses) and Jeff Nurenberg (at right in glasses). I am in the back row, center next to Jeff. (Image courtesy of Boston University. Reprinted with permission.)

played on our medical school hockey team) and to socialize (Fig. 8Q). Medical school can be a wonderful experience, and I will always treasure that time of my life. I would also advise students to try to find a mentor, and adapt the habits of your good teachers and attending physicians in developing your own unique bedside style.

5. What would I recommend to improve the medical school experience? I would encourage individual students to participate in research or to prepare a thesis, but not make this a mandatory exercise. Students should also be encouraged to rotate through all the different clinical venues available, for training, and not concentrate their work in one hospital. I would make use of simulation labs where students can have standardized experiences. Ultimately, I would like to see the entire country utilize the same basic science curriculum, with some of the best teachers in the country providing instruction via the internet. This could also be a methodology for teaching some clinical subject matter. Students all have to take the same board examinations; therefore, the curriculum in different medical schools should be standardized. I also don't think there should be honors grades given during the first semester of medical school, since students enter with all different levels of preparation and varying study habits. A pass-fail system should be used initially.

CHAPTER

10

GUARDIANS

"We must never forget why we have, and why we need our military. Our armed forces exist solely to ensure our nation is safe, so that each and every one of us can sleep soundly at night, knowing we have 'guardians at the gate.'"

- Allen West

I had grown up in a family where both my father and all of my uncles had served in the military during World War II. My father was drafted into the Army, had completed his basic training at Fort Dix, New Jersey and was then assigned to the last horse cavalry regiment which was based at Fort Sill, Oklahoma, an artillery facility. My Dad, who achieved the rank of corporal, also spent some time at Fort Ord in California, but never saw action overseas. His brother, Phil, was assigned to an armored infantry unit in Europe, and was wounded in action multiple times, receiving the Purple Heart. My father's youngest brother, Ken, served in the Philippines in 1945. My mother's brother, Sydney, served in the Navy. My parents were married while my father was on active duty and on furlough. I had always had an interest in military history, was a Boy Scout, and an avid reader of military comic books as a youth. I attended medical school (1965-1969) during the heart of the Vietnam War, when the military was drafting almost all male physicians into active service after graduation. At that time, males could get an educational deferral to complete medical school. As a student, I saw many resident physicians going off to the military in the midst of their training, while many others were returning to complete their residency. During medical school, I did an orthopedics rotation at the Chelsea Naval Hospital in Boston, which at the time was packed with young Marine combat victims who had been evacuated back to the U.S. following the North Vietnamese Tet Offensive of 1968.

Because of my young age at graduation from medical school (22), I was certain to be drafted. To avoid being assigned the role of a general medical officer, I had joined the Berry Plan, which allowed a graduating physician to complete his residency (women were not eligible for the draft) and fellowship training in a civilian hospital and then to report for active duty as a specialist. I was deferred as a cardiologist, and entered the Army as a medical officer in July, 1974, in my specialty (Fig. 10A).

At the time, the war in Vietnam was beginning to wind down, and the draft was over. I was excited to serve, although my wife was unhappy about it. Luckily I was assigned close to home at the U.S. Walson Army Hospital, a large military hospital at Fort Dix, New Jersey, that also served McGuire Air Force Base (Fig. 10B). Our commanding officer was Colonel Leon Dixon, an African-American internist-cardiologist who was very popular with the medical staff because of his fairness and wisdom (Fig. 10C). I was assigned a small house in the officers' bachelor's quarters across from the hospital, and we kept our residence in the Bronx where my wife and daughter stayed. I would commute to the Bronx two or three times a week, and my wife and daughter would often visit the base. In my second year, my wife moved down to the area permanently, and my daughter started nursery school on the base. While on active duty, I was also appointed to the faculty of Cornell Medical School as an instructor, and would return periodically to New York Hospital to complete my research projects.

After I completed basic officer training, I was assigned to the cardiology section with the rank



Figure 10A: My official Army photo (1974). At age 27, I was a major in the Army Medical Corps. Ultimately I would be promoted to the rank of lieutenant-colonel as a reservist during Desert Storm.



Figure 10B: Walston Army Hospital Fort Dix, New Jersey. I was assigned here as chief of cardiology for most of my active duty tour from 1974 to 1976. At this 500-bed hospital, we took care of active duty personnel and retirees from the Army and Air Force. McGuire Air Force Base can be seen in the rear. It was a privilege for me to serve in the military, an experience that aided me in all my future leadership positions.



Figure 10C: My hospital commander, Colonel Leon Dixon of the U.S. Army Medical Corps, Fort Dix, New Jersey. He was one of the most impressive leaders with whom I have had the pleasure of working. He was fair, honest and extremely devoted to the medical officers under his command.

of Major. I had a clinical practice in the Army that was similar to what one would have in civilian life, taking care of retired military veterans and active duty personnel and their dependents with heart disease. I helped design a new coronary care unit at the hospital, and introduced echocardiography as a diagnostic test. My other assignments included being on night and weekend call as an internist (medical officer of the day) and as an emergency room physician (physician of the day). I also saw patients in the Fort Dix stockade, including hundreds of soldiers who had been caught after being absent without leave (AWOL) and were about to be dishonorably discharged.

Being an Army medical officer was a privilege. Having clinical responsibility for active duty soldiers, their dependents and the retired veterans was a great experience, and I was truly blessed to have had this opportunity.

While on active duty, I also helped set up a cardiology rehabilitation program for victims of myocardial infarction, for which I received the U.S. Army Commendation Medal from the Secretary of the Army, Martin Hoffmann. In recognition of my military service, I would ultimately receive the New York State Distinguished Service Cross from Governor Mario Cuomo.

In the medical corps there is a lot of support from medics, nurses and administrators, and a physician's hospital order is indeed an order. In contrast to today, the military hospitals at the time were run very well. During my two years in the military, I was an eye witness to three major historical events:

1. I was in the emergency room on August 9, 1974, when Richard Nixon resigned as president. It was depressing to see our Commander in Chief brought down. Within minutes, Gerald Ford's photograph replaced Nixon's in the chain of command table of organization which was posted outside the hospital commander's office.

2. The war in Vietnam officially ended on April 30, 1975, with the emergency evacuation of the American embassy in Saigon. To be part of a defeated army, no matter what your political position on the war, was extremely disheartening.

3. I was discharged from active duty on July 7, 1976, three days after the Bicentennial, essentially a spiritual rebirth of the nation, after the defeat in Vietnam.

I was also a witness to one of the great medical fiascos, the swine flu epidemic that never was. The sole victim of the so-called "epidemic" was a Fort Dix soldier, who died on the base in February, 1976. Gerald Ford's decision to make a vaccination mandatory across the country, based on this one case, may have cost him the election to Jimmy Carter later that year. I saw how an irresponsible press could whip the population into a frenzy.

I also spent a month at the war games held at Fort Bragg, North Carolina, with the 82nd Airborne Division, where I was assigned as a medical officer to one of the last army field hospital units (36th Medical Clearing Company) (Fig. 10D). After the Vietnam War ended, the military had to have a morale boost so these massive inter-service war games (Solid Shield) were organized. That year, 1975, I slept in a tent from Memorial Day until the end of June, camped at Pink Hill, North Carolina. I would also fly on medical evacuation helicopters to Camp Lejeune, a marine base on the coast (Fig. 10E). The experience was just like the movie and TV show *MASH*, living with the mosquitos and heat, eating combat rations left over from previous wars and ending with a combat landing on a beach in a C-130 transport plane (Fig. 10F). Fortunately, as a physician, I never had to jump out of airplanes. Our side, the blue team, defeated the red team (101st Airborne Division) from Fort Campbell, Kentucky, which had invaded North Carolina (Fig. 10G).

I am very grateful to the Army, and feel proud that I could serve, with distinction, both my country and the soldiers and their families who had made such a major sacrifice.



Figure 10D: With the 82nd Airborne Division, Fort Bragg, North Carolina during war games (1975).



Figure 10E: Exiting an Army medical evacuation helicopter during Army war games with the 82nd Airborne Division, Fort Bragg, North Carolina. The war in Vietnam had just ended (1975).



Figure 10F: At the war games in Fort Bragg, North Carolina (1975). Making the world safe for democracy.

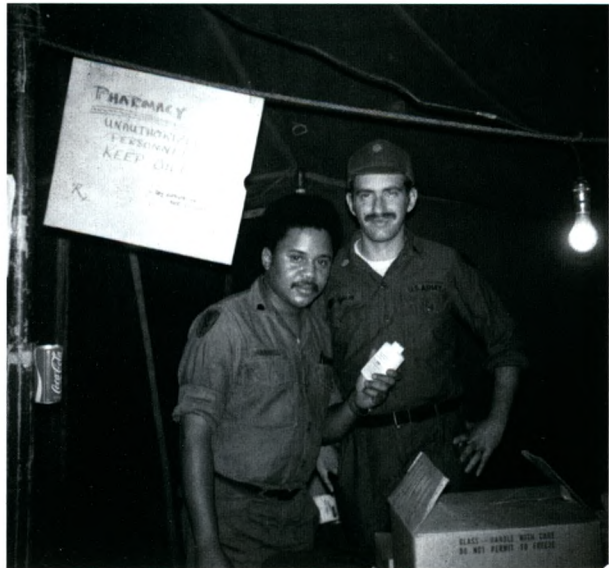


Figure 10G: As a physician commander of the 36th Medical Clearing Company, 82nd Airborne Division, Fort Bragg, North Carolina, during war games.

In the military, I also had the opportunity to serve as a chief of cardiology at the age of 28, an experience that would help me in my future administrative roles in medicine. I had thought about staying on active duty after completing my required two years of service, but my wife said, "that's it" and she's the boss. My assignment would have been the cardiology catheterization laboratory at Landstuhl, Germany. I returned to reserve duty during Desert Storm as a lieutenant-colonel, but ultimately would resign my commission after the Gulf War ended because of family and work pressures. I was grateful to the elder George Bush for not extending the war, and allowing me to leave the Army. Today, I remain an active member of two veterans' organizations, The American Legion and The Jewish War Veterans, and march each year with these units at the Memorial Day and Veterans Day celebrations in my hometown of Scarsdale, and in White Plains.

Today, I write letters of recommendation issued from our school for medical students with military scholarships who are applying for residency. My letters always end with "as a former medical officer who served during the Vietnam and Desert Storm eras, I am pleased to recommend this student, devoted to his/her profession, and to his/her country."

CHAPTER

14

LEADERSHIP

"If your actions inspire others to dream more, learn more, do more, and become more, you are a leader."

- John Quincy Adams

Two of the most rewarding, yet challenging, positions in academic medicine are those of chairman of the department of medicine at the medical school and chief of medicine at the affiliated university hospital. In these capacities, one has the responsibility for the faculty, primary and subspecialty clinical care, research (basic science and clinical) and the education of medical students, residents, fellows and colleagues. Indirectly, through his/her students and trainees, the chairman has an impact on the care of thousands of patients every day, but as an individual practitioner, he/she still takes care of patients one at a time. I have held both positions for over 18 years now at New York Medical College and Westchester Medical Center, one of the longest tenures in the nation.

I was identified as the lead candidate for the positions of chairman of medicine at New York Medical College (NYMC) and director of medicine at Westchester Medical Center (WMC) by a search committee made up of basic scientists and clinicians from the school and affiliated hospitals (Fig. 14A). I was then appointed to these positions by Monsignor Harry Barrett, president and CEO of NYMC, who was also a priest from the Archdiocese of New York with a public health background, Dean Ralph O'Connell, a psychiatrist, and Edward Stolzenberg, the hospital's commissioner of health for WMC (Fig. 14B). The salary I would receive in my new positions was twice that paid to me by Einstein-Montefiore, and I was given a magnificent office in an old medical school building, the Munger Pavilion. My wife, working with the school's architects, designed my office suite, which included my office, a large ante-room, three bathrooms, a conference room and a library for my bound journals and textbooks that were previously stored on shelves in the basement of my house. My wife threatened the school, that if the books weren't moved from our basement, she wouldn't let me show up to take the job. The office also had a large terrace. Munger Pavilion was previously a county tuberculosis hospital that had been taken over by the medical school (Fig. 14C). My office was the former solarium, a very light room, with multiple windows, where in the past, the tuberculosis patients would be exposed to sunlight during the cold months and the terrace was where they sat during the warmer months. My practice office was also in the building. I no longer had a hospital office, as I had at Einstein.

The department of medicine at NYMC is one of the largest in the country, encompassing multiple affiliated hospitals, 800 teaching physicians and researchers, 300 residents and fellows and 2,500 support staff including nurse practitioners and physician assistants. The hospital and medical school buildings sit on 600 verdant acres, probably the largest and most beautiful academic medical center campus in North America (Figs. 14D-F). NYMC, one of the oldest private schools in the U.S., was founded as a homeopathic medical school in 1860 in Manhattan. As a health practice, homeopathy was very popular in the U.S. at that time, and among of the nineteenth century homeopathic medical schools included Hahnemann (named after the founder of homeopathy) in Philadelphia, and Boston University (my alma mater). NYMC ultimately evolved into an allopathic medical school, although

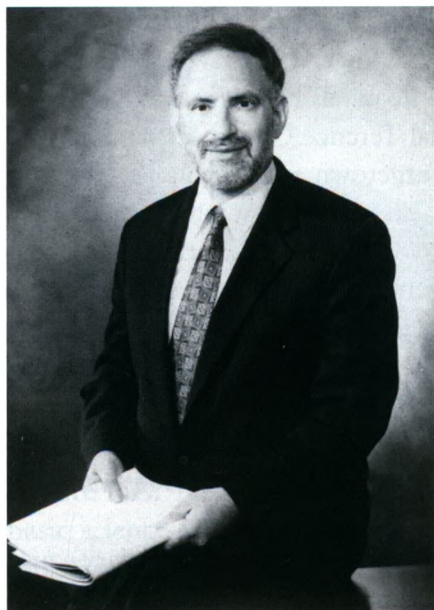


Figure 14A: My formal photo at the time of my appointment as chairman of medicine at New York Medical College (NYMC) and director of medicine at Westchester Medical Center (1997).



Figure 14B: Taking part in the Medicine at the Millennium conference at NYMC in 2000. Dr. Arnold Relman (second from left), who was visiting professor had been my chief of medicine at Boston City Hospital during my student days. Monsignor Harry Barrett, president of NYMC, is standing far left, and Dean Ralph O'Connell is second from right. I am standing in the rear to the right of Dr. Relman.



Figure 14C: The Munger Pavilion at NYMC, is a former tuberculosis sanatorium, housed my administrative office for 15 years.



Figure 14D: The shared campus of Westchester Medical Center and New York Medical College campus in Valhalla, New York. (Image courtesy of New York Medical College. Reprinted with permission.)

homeopathy courses were still being taught through the 1950s. NYMC was one of the first medical schools to own its own hospital (Flower Hospital which then became Flower-Fifth Avenue Hospital). Because of financial problems in the 1970s, mostly involving the hospital, NYMC was taken over by the Archdiocese of New York, at which time was led by Cardinal Terence Cooke, a Bronx native. There are other Catholic medical schools in the U.S., including Georgetown and Loyola of Chicago, but NYMC was the only school run by an archdiocese. The school also moved to Westchester County on the campus of the Westchester County Medical Center which would become a primary hospital affiliate. Other school affiliates of NYMC at the time of my appointment included Metropolitan Hospital, a public hospital in Manhattan, representing the longest affiliation between one medical school and a hospital, dating back to 1883 (Fig. 14G), the Catholic Health Care System of New York City with its flagship hospital, St. Vincent's Hospital (Fig. 14H), The New York Eye & Ear infirmary, the oldest specialty hospital in the U.S., Stamford Hospital in Connecticut and Calvary Hospital in the Bronx. In 2010, the 150th anniversary of the school, I became the historian for the occasion (*see Appendix W*), although I didn't attend NYMC as a student.

WMC (when I started it was known as Westchester County Hospital) is the only tertiary- quaternary care hospital in the Southern Hudson Valley, serving a population of three million residents in eight neighboring counties. At the time, the hospital had 600 beds, including a psychiatric facility, and is a major transplant, trauma and cardiovascular treatment center. As a major referral hospital, it has the highest level of patient disease severity in the U.S.

Having previously worked at a Jewish medical school with Jewish hospital affiliates, I was now in a Catholic school with many religious and non-sectarian affiliations. As chairman and director, I was again affected by the tensions that often exist between a medical school and its affiliated university hospital, as I was at Einstein-Montefiore. However, I was prepared to deal with it. A medical school has major responsibilities for student education (Fig. 14I) and research, the hospital for clinical care, clinical research and residency training.

I started at NYMC and WMC in November 1997, having been appointed as a professor of both medicine and pharmacology. I had never obtained a pharmacology appointment at Einstein because my research was considered clinical (patient focused) and not basic, even though I was a major teacher in the medical school's pharmacology course at Einstein, and have remained so. Before starting in my position in November, as chairman, I met with all my section heads during the previous summer to discuss what expectations we had for one another. My administrative secretary, Carol Ruggiero, and my editorial assistant, Joanne Cioffi-Pryor, had moved with me from Einstein, so I had familiar figures working with me in the office (Fig. 14J). About a quarter of my department faculty at WMC had been former students and residents of mine from Einstein and at Montefiore, so I had a basis of support, right from the beginning.

I made no administrative changes at the onset. My department administrator at NYMC, Connie Cacciopa, had been appointed by my predecessor Dr. Richard Levere. I initially appointed three new vice chairmen. The vice chairman for medical education, Dr. Robert Lerner, had been the acting chairman prior to my arrival. Dr. Lerner is also a classic hematologist, and is director of both the hematology section and the hematology-oncology fellowship program. He is one of the few current faculty members who had worked for the school when it was located in Manhattan. Dr. Lerner has been helpful to me through the years, especially with letter of recommendation letter writing for faculty and students. I appreciate his wisdom and candor. He is now 80 years old and still working with me as vice chairman. Dr. Gary Wormser, a world-renowned expert on tick-borne diseases, and head of the infectious disease section, was appointed as vice chairman for research. The third vice chairman was



Figure 14E: New York Medical College, one of the basic science buildings. The anatomy lab is on the top floor in a sunlit area, an improvement over the dark basement labs of the past.



Figure 14F: New York Medical College, the “Sunshine Cottage” administration building. (Image courtesy of New York Medical College. Reprinted with permission.)



Figure 14G: Metropolitan Hospital in Manhattan enjoys the oldest continuous affiliation (since 1883) between a public hospital and a single medical school, New York Medical College.



Figure 14H: St. Vincent’s Hospital in Manhattan. Founded in 1849 by the Sisters of Charity, it was the receiving hospital for survivors of the Titanic and from 9/11.

Dr. Eric Rackow followed by Dr. Dennis Greenbaum, both critical care specialists who were hospital chiefs at St. Vincent’s Hospital until it closed. Ultimately I selected an administrative vice chairman, Dr. Stephen Peterson, who was head of the general internal medicine section and the residency program director at WMC. He would serve as my right-hand person regarding our department’s private practice.

My other section heads were Dr. Alvin Goodman, a nationally-renowned nephrologist, who started the dialysis program in Westchester. Alvin was the only section head who was Westchester-based from the start, being in place before the medical school moved from Manhattan. He ultimately retired but endowed a chair in nephrology in his name, and also left an endowment at the school for renal education and research. I then appointed Dr. Renee Garrick (Fig. 14K) as section chief. Renee had been my resident at Einstein. She is a highly effective person who would ultimately be chosen

to be president of the medical staff at the hospital, chief medical officer and vice dean at the school. My director of geriatrics is Dr. Krishan Gupta, an English-trained physician who was also director of the hospital's affiliated nursing home facility and head of the geriatrics fellowship. The head of endocrinology and metabolism was Dr. Louis Southren, a prominent researcher who trained many of the endocrinology leaders in New York. When I started, he was at the end of his career, but I kept him on. After his death, he was then succeeded by Dr. Irene Weiss who had come to us from Metropolitan Hospital. The head of pulmonary, sleep medicine and critical care is Dr. George Maguire who has now been in that position for 30 years (Fig. 14L). Dr. Edward Lebovics was the acting chief for the section of gastroenterology and hepatology when I arrived. Here I would face my first administrative challenge within the gastroenterology section; there was another physician who felt he deserved the position. He ultimately left our full-time group for private practice at another hospital, and I then appointed Dr. Lebovics as the permanent chief, and he still serves in this capacity (Fig. 14M).

When I arrived, Dr. Melvin Weiss was the acting chief of cardiology and director of the cardiac catheterization laboratory at the hospital. Dr. Weiss had been trained at Columbia, and was one of the leading interventional cardiologists in the region. I eventually appointed him to the permanent chief position. He would ultimately resign his position, and was replaced by Dr. Julio Panza, recruited from Georgetown Medical School and the Washington Hospital Center. Julio has been an outstanding addition to the department.

I also recruited Drs. Raymond Dattwyler from Stony Brook University School of Medicine. Ray, a nationally renowned allergist, was appointed Chief of Allergy, Immunology and Rheumatology to replace Dr. Arthur Weinstein, who had left for Georgetown. Dr. Julia Ash has served as director of the rheumatology sub-section since my arrival. The oncology section is led by Dr. Tauseef Ahmed, a regional leader in the management of cancers of the blood. Dr. Ahmed has also been in place as section chief since my arrival at NYMC.

I have worked with dedicated directors of our medical student programs, including Drs. Merville Marshall, John Raffalli, Stephen Moshman, and Gary Stallings, who is now an assistant dean. Dr. Christine Carosella and Dr. Kausik Kar have served as directors of the medicine sub-internship program, Dr. Carol Karmen, as director of the student outpatient program.

The directors of our medicine residency (Fig. 14N) are another outstanding group of academic leaders and include Drs. Stephen Peterson, Andrew Gutwein, Sachin Sule and Christopher Nabors.

I also have had a very good relationship with my first hospital administrators, then President, Edward Stolzenberg, and the hospital medical director, Dr. George Reed, one of the pioneers of heart surgery, who also served as chief of cardiothoracic surgery. Upon Dr. Reed's retirement, he was replaced in cardiac surgery by Dr. Stephen Lansman and Dr. David Spielvogel, who had been recruited from Mount Sinai Hospital in New York. I also had the good fortune to work with Dr. Louis Del Guercio, the chairman of surgery who was the "father" of surgical critical care, and his disciple, Dr. John Savino, who ultimately replaced him.

I have always had excellent relationships with Monsignor Barrett and Dean O'Connell when they were the top administrators from the medical school. Dean O'Connell, an extremely effective person, would be my dean for 15 years. He is one of the most knowledgeable individuals I know on all subjects, and a scion of a distinguished New York Irish family. I always enjoyed my interactions with him, and had great respect for his wisdom. Since I worked well with the hospital and school administrations, I often served as the bridge for relieving tensions between them.

I was able to make a relatively smooth transition to the chairmanship at New York Medical College because I respected the work culture and environment. I have learned to appreciate that in all



Figure 14I: The Chairmen of Medicine Interest Group of New York City, 1998. We had a handshake agreement never to steal faculty from one another. Standing at left is Dr. Stephen Kamholz from the State University of New York, Downstate. Seated to my left is Dr. Saul Farber, who was both chairman and dean of New York University School of Medicine for over 30 years, and to my right Dr. Barry Collier from Mount Sinai. Back row, standing from left, are Dr. James Scheuer, my last chairman at Einstein, Dr. Myron Weisfeldt from Columbia, and Dr. Ralph Nachman from Cornell.



Figure 14J: At an Alpha Omega Alpha (AOA) National Medical Honor Society reception with Dr. Edward Harris Jr., the AOA National Executive Secretary and Carol Ruggiero, my secretary and office administrator for 25 years, both at Einstein and New York Medical College (NYMC). Carol and I are both South Bronx natives.



Figure 14K: Dr. Renee Garrick, chief of nephrology and chief medical officer of Westchester Medical Center. Renee was my trainee at Einstein.

aspects of academic medicine and leadership, if change must be made, it must be executed after careful thought and deliberation. I also learned from my previous positions at Einstein and Montefiore that one should lead by personal example and not by intimidation or threats.

The greatest challenge I faced as chairman, however, was how best to run the private practice of the department. This is an issue faced by all medicine chairmen. When I first came to NYMC, there was an attempt to unite the faculty into a multi-specialty practice group. An organization had already been set up to serve as the foundation for the group, the Medical Faculty Health Alliance, which handled managed care contracting for the practice. The faculty practice was governed by a loose agreement of clinical directors called the Federated Faculty Practice Plan. Essentially, the academic departments had their own independent private practices, including the department of medicine. Other than the obligatory dean's tax to the school, NYMC had no real control over the practices. I had come from Einstein-Montefiore where I had worked under a school-run practice plan that was ultimately replaced by a successful hospital-run practice.

The department of medicine practice plan at NYMC was a professional corporation that had been set up by the previous chairman. The chairman was the major shareholder, although each section had to manage its own academic and clinical programs with a small tax paid to the chairman. I found this structure to be ideal, especially if the chairman is benevolent, which I have always tried to be, and ensures that all the sections are productive and solvent, and that individual faculty member are rewarded and recognized for the job that they do,

Over the past 18 years, I have learned that a pure private for-profit practice has no real place in an academic department. The mission of a pure private practice is often mercenary, and usually not scholarly. The only practice models that might work are those controlled by the school, hospital or a hybrid practice like we had (Medical Research Associates) attached to the school. The academic practice at the Einstein medical school is still controlled and managed by Montefiore Hospital as a unified entity. Similarly, the practice at the new Hofstra medical school on Long Island is controlled and managed by the North Shore-Long Island Jewish Healthcare System. In each situation, the chairman of medicine can pursue research and other academic programs with the private practice earnings that are allotted to him/her.

I have continued in my private practice during my years as chairman, first through our practice corporation and now as an employee of the hospital. I believe that a chairman of medicine must continue to practice so as to set an example for his/her clinical departments. My practice is 50 percent general internal medicine and 50 percent cardiology. Ultimately, my last job in medicine will be that of a practitioner, the main reason I became a physician.

Despite some challenges with the private practice, I have helped to guide the department in its gaining a national reputation as a strong educational and clinical research entity. Our students match in the most prestigious medicine residency programs in the country, which was not the case with NYMC students in the distant past. Residency directors from other institutions write to tell us that our students are not only bright, but the most humanistic. I get to know almost every student, and personally write at least 100 letters of recommendation each year for students applying in categorical medicine or for those who need one year of medicine training before pursuing other specialties. Across the nation, my letters are considered "gold," and are honest straightforward appraisals of our students (Fig. 14O). Each summer is dedicated to letter writing and student advisement (*see Appendix U*).

In recognition of my continued dedication to medical education; the students at NYMC have chosen me as their outstanding teacher, each year. I am a member of the NYMC faculty honor society (Goldstein Society). I was given the Humanism in Medicine Award by the AAMC. I received the

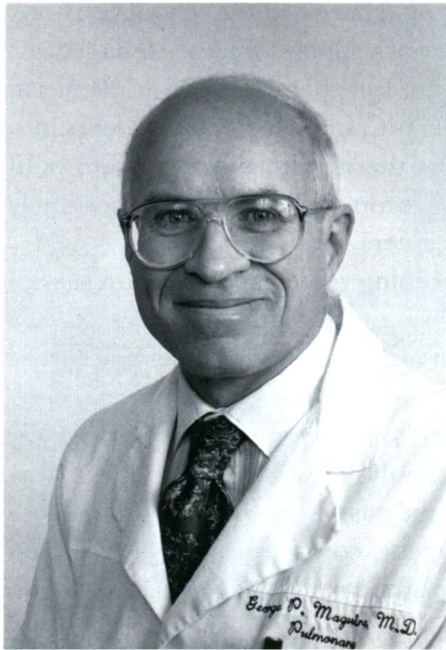


Figure 14L: Dr. George Maguire, chief of pulmonary medicine and critical care at NYMC and WMC for over 30 years.

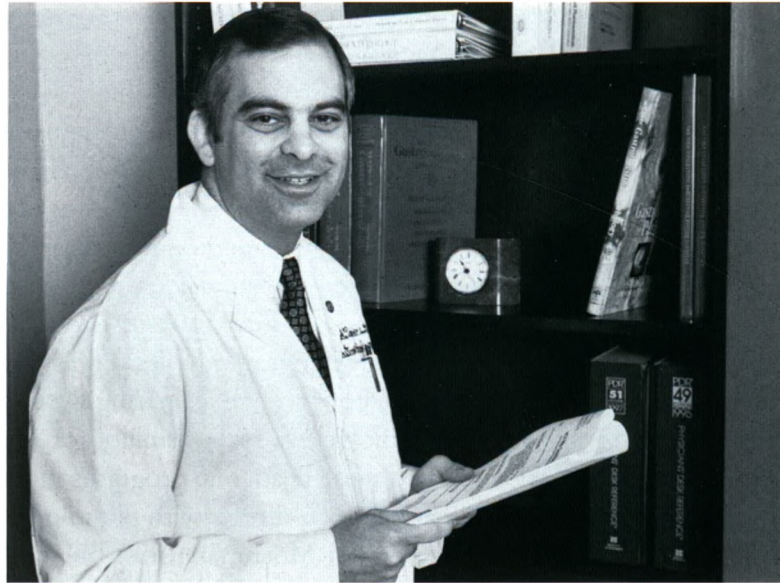


Figure 14M: Dr. Edward Lebovics, director of gastroenterology and hepatobiliary diseases at NYMC. His predecessor, Dr. William Rosenthal, endowed the professorship that gave me the title of Rosenthal Professor at NYMC.



Figure 14N: Graduating residents from Westchester Medical Center in 1998. I am standing in front (right). At left are two of my vice-chairmen, Dr. Robert Lerner and Dr. Stephen Peterson. To my right is Dr. Karen Seiter, who was my resident at Einstein, and is now a leading leukemia specialist.

Distinguished Service Award from the NYMC Alumni Association, and have had the school yearbook dedicated to me. I am the faculty advisor (Councilor) for the school's Alpha Omega Alpha (AOA) Honor Society Chapter, a position I also held at Einstein. My greatest legacy as a medical academician is that I have taught over 7,500 medical students at Einstein and NYMC, inducted 1200 students into AOA, supervised over 500 students in preparation of their honors theses with most of them published, and helped to train 1500 residents and fellows. I was able to accomplish all of this successfully at two separate New York medical schools and academic medical centers.

I am also a front-line teacher of the residents. I make morning report and chief of service rounds, in medicine and cardiology, run grand rounds, and supervise the residency recruitment. We enjoy a wonderful house staff year after year, people who have risen to the challenge of helping to take care of the sickest patients in the country, while serving as teachers and role models for our students.

The department of medicine has responsibility for teaching students in all four years of the medical school. One of the strongest academic programs in the school is the second year pathophysiology course, which our department co-directs with pathology. In the past, I had served as the course co-director (Fig. 14P). Dr. Stephen Moshman from our department, coordinates the course now. Other department faculty instruct students in physiology, biochemistry, microbiology, pharmacology, physical diagnosis, ethics and the history of medicine.

The many innovative changes we have made in our student and house staff programs have brought us national recognition. We send all our students to Calvary Hospital in the Bronx, the only acute care hospital in the country for the terminally ill. I made this a requirement of the medicine clerkship, and we have documented an increased appreciation by our students for compassionate end-of-life care without the need for physician-assisted suicide (*see Appendix C #100*). We have successfully managed student clerkships and sub-internships at six different clinical sites which have their own individual residency programs. I have been the leader on campus in making sure we have enough clinical sites for our students, including the addition of Lenox Hill Hospital in Manhattan and three hospitals in Western Connecticut, (Greenwich, Norwalk and Danbury Hospitals), which are also Yale affiliates. The Achilles heel of a medical school are its clinical affiliates.

Regarding house staff innovations at WMC, our hospital is the only New York site to be part of the Educational Innovations Project (EIP) of the Accreditation Council for Graduate Medical Education (ACGME), the internal medicine residency accrediting agency. We were last inspected by the accrediting organization in 2003, and our next inspection is scheduled in 2021 (18 years) at a time when the maximum accreditation period is now 10 years. Being part of EIP, we are expected to be a model residency program for the country. With the Bell Commission reforms in place, there are now many more resident/patient hand-offs with the potential for misinformation being given.

With the help of Dr. Christopher Nabors in our department, we have developed a computer-based hand-off system, which allows attending input and supervision of house staff to avoid errors (*see Appendix C #107*). This approach to hand-offs has received national recognition. We have also been pioneers in the implementation of the Milestone Evaluation Program that has now become the standard means for assessing residents and fellows in the U.S. (*see Appendix N, Appendix C #116*).

I have continued to be active in research, focusing on cardiovascular drug trials. Most recently we have been looking at various anti-inflammatory drugs to prevent second myocardial infarctions in survivors of a myocardial infarction using an interleukin-1 inhibitor and methotrexate. During my time at NYMC, because of its close proximity to Einstein, I was also able to also continue some of my research activity at that institution, including the Bronx Aging Study and the Women's Health Initiative, and seeing these long-term projects through from beginning to end.

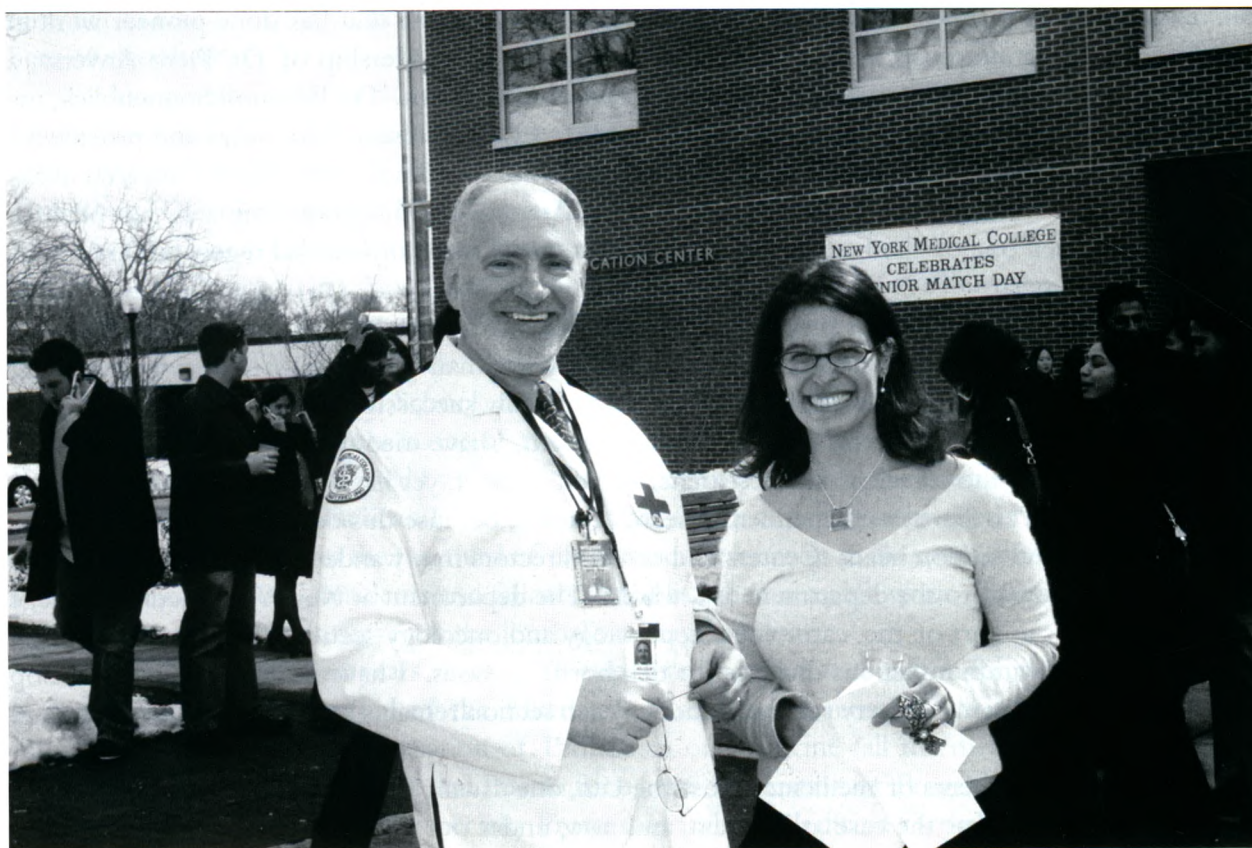


Figure 14O: One of the joys of being chairman is celebrating with the students on Match Day, when the assignments for hospital internships and residencies are announced. Note the students on their cell phones in the background, calling their families with their match results.

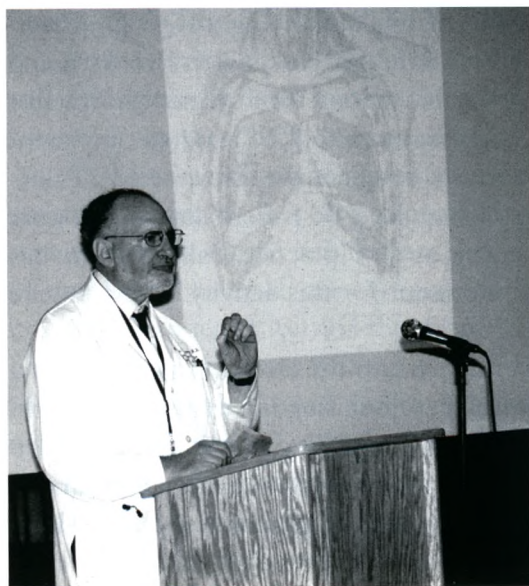


Figure 14P: Lecturing to the NYMC students in pathophysiology.

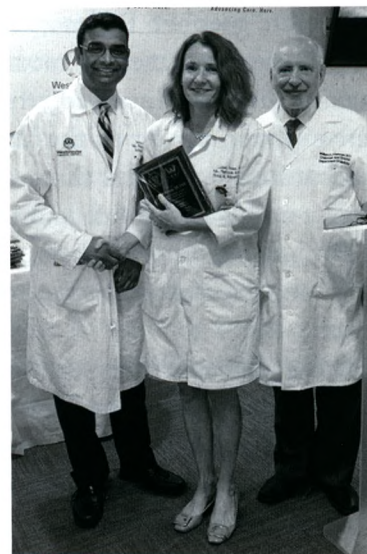


Figure 14Q: With Dr. Sachin Sule (left), Residency Program Director at WMC and Dr. Leanne Forman, Co-Chief of General Internal Medicine.

Our department includes a Cardiovascular Research Institute that has done pioneer work in the area of cardiac apoptosis and stem cell biology. Under the leadership of Dr. Piero Anversa, a cardiac pathologist, the concept of myocardial regeneration was born. Dr. Edmund Sonnenblick, my former chief of cardiology at Einstein, would attend Dr. Anversa's research meetings and provide his input as a physiologist. Dr. Sonnenblick died of cancer in 2006, and was attending the research meetings until the last week of his life (*see Appendix V*). Dr. Anversa and his group ultimately left NYMC. He and I co-edited one of the first books on cardiac stem cells and myocardial regeneration (*see Appendix C #135*).

Regarding other research programs, we were able to recruit Dr. Michael Goligorsky, a renowned nephrology researcher, to become the first Alvin Goodman Professor of Medicine and leader of the Nephrology Institute. Dr. Goligorsky has been a highly successful funded investigator.

In organizing a research program in the department, I have tried to create an institute in each section. In this way, the clinicians and researchers could interact, yet have some independence from one another. I don't believe in independent research centers, because this detracts from the authority of the chairman and section heads. Centers and center directors may wander off on their own, which can reduce their loyalty to the department as a whole. The department at New York Medical College now has institutes as part of the cardiology, nephrology and oncology sections. We are trying to develop an institute within infectious diseases for tick-borne diseases. I have not been able to develop funded research programs in every section, although each section remains strong in its clinical care and education missions.

Within departments of medicine across the U.S., one usually finds the most research-intensive clinical faculty, which was the case at Einstein, and now, under our administration, it is also true for NYMC. An important role of the chairman is to also recruit new talent. Overtime, I made new appointments of section chiefs in cardiology, endocrinology, allergy-immunology-rheumatology, gastroenterology and hepatobiliary, nephrology, general internal medicine and palliative care. I never fired a chief, but allowed resignation and retirement to create vacancies. I am convinced that this approach contributed to the stability of the department. I recently appointed Drs. Leanne Forman and Arif Mumtaz to replace Dr. Stephen Peterson as chief of general internal medicine (Fig. 14Q). Dr. Peterson had gone on to become chief of medicine at the New York Methodist Hospital in Brooklyn and I have subsequently divided general internal medicine into two sub-sections: an in-patient hospitalist section (we were at the forefront of the hospitalist movement dating back to 1997) and an outpatient section, responsible for the medical clinic and the outpatient private practice. We also created a Palliative Care Section, a necessary service in our hospital with such a high level of patient illness. We were able to recruit Dr. Michael Frankenthaler, a regional leader in this area of practice. Palliative care has recently received considerable attention regarding the reimbursement for this activity by the federal Medicare program.

The director of the residency program reports both to me, and to the directors of the general internal medicine section. I have had four residency program directors during my tenure. The most common reason for change was faculty burnout, since this is a very demanding position. I have also had four department administrators, the last of whom having been with me for 10 years. The current section heads of hematology, pulmonary, oncology, infectious diseases and geriatrics are individuals who had these positions when I arrived at NYMC 18 years ago. They have provided a source of continuity and strength. I do not believe one should make change for the sake of making change; experience and history go a long way. Of course, there is always turnover in a large enterprise like a department of medicine. If I know that an individual is offered a better position, I have always encouraged

him/her to take it. It is a source of pride for me to have my faculty advance in their careers, whether here or elsewhere.

Along with my research activities, I have continued my writing and editorial projects. To date I have published over 1100 original articles, editorials, reviews and book chapters and have published approximately 250 abstracts related to oral and poster research presentations. I have never let up on my writing. During my time at NYMC, I started a new journal, *Heart Disease*, published by Lippincott. This was the second journal I started. The challenge one faces in the first years of a journal is to get it accepted for indexing in various databases. Authors won't contribute to a journal unless it is indexed in the first year of publication. *Heart Disease* ultimately merged with *Cardiology in Review*, now published by Wolters Kluwer. My co-editor is Patrick O'Gara, Chief of Cardiology at the Peter Bent Brigham Hospital and Harvard Medical School, and the immediate past president of the American College of Cardiology. *Cardiology in Review* is one of two institutionally-based peer review cardiovascular journals in North America not supported by a professional society. However, the journal is an unofficial affiliated publication of the American Heart Association. The journal is published six times a year, has an impact factor that puts it in the top third of cardiovascular journals in the world, and has been a forum for our medical students, residents and fellows to publish their research work. Joanne Cioffi-Pryor, my capable editorial assistant, serves as the journal's managing editor.

During the last ten years, I was also appointed supplements editor for the *American Journal of Medicine*, the official journal of the Alliance for Academic Internal Medicine, a national organization which includes the Association of Professors of Medicine (all the medicine chairpersons in North America including Canada and Puerto Rico), the Association of Program Directors in Internal Medicine, the Association of Subspecialty Professors and the Medicine Clerkship Directors of North America. The *American Journal of Medicine*, with a readership of 150,000 physicians, is one of the three major internal medicine journals published in North America.

I have also co-authored and co-edited multiple textbooks (see Appendix C #123-136) including three editions of *Cardiovascular Pharmacotherapeutics*, four editions of *Current Cardiovascular Drugs* and the volumes *Cardiovascular Regeneration and Stem Cell Therapy* and *Complementary and Integrative Therapies for Cardiovascular Disease*. I edited the *Year Book of Medicine* (see Appendix C #137-147) for 10 years, and currently serve on multiple editorial boards and as a journal reviewer. Much of my skills in editorial work and writing can be dated back to the editorships of both my high school and medical school yearbooks where I learned to discipline myself regarding deadlines and manuscript organization.

When writing, one has to have an idea in one's mind what the final manuscript will look like, and then go for it. It is also important to constantly recheck and rewrite. When writing and editing sentences for scientific publications, one has to be able to say what one intends, using the fewest amount of words, and to make use of figures and tables when necessary to summarize and explain concepts in a clear manner. I learned this from writing multiple articles in the *New England Journal of Medicine*. Finally, one has to enjoy writing. I still compose my first drafts on a legal writing pad and then give my handwritten text to Joanne and to my other administrative assistants, Charlene, Donna and Barbara to type. Then I work off a triple-spaced typed text in preparing my next version, I am not yet comfortable writing with a computer but recognize that this is the future. I still enjoy having a book or journal in my hands to read. Right now I think better with a legal pad, and I keep it close by to record my ideas before I forget them. In medicine, one has an obligation both in writing and speaking to convey observations and discoveries to colleagues and the larger audience, which includes patients. Writing is more difficult than public speaking for most physicians, and I have continued to spend a good deal of my time mentoring colleagues and trainees on how to publish their work. There is a great joy in seeing

your work in print, and once you are successful, it feeds on itself so much that you want to do more.

A chairman must be in constant communication with his department to convey information, to discuss new ideas and to dispel rumors. I meet with my section chiefs and institute heads once a month, and with each individual on the faculty at least once a year, to set priorities and goals. There are many impromptu meetings to attend, especially those that are unexpected when problems arise. I write a comprehensive departmental newsletter, and am constantly writing memos and congratulation letters to the faculty in recognition of their accomplishments. I try to meet at least quarterly with the chiefs of medicine in our affiliated hospitals, and with many of their section chiefs. I have an outstanding support staff that helps in the dissemination of information and new policies to both our faculty and trainees

I meet with the chief medical residents at WMC daily and with the entire house staff at least once a month. I get to know every house officer very well, and am able to write letters of recommendation for each of them from personal knowledge. I am very active in the house staff recruitment process, meet with all the candidates in groups, and do personal interviews with many of them (Fig. 14R).

As chairman I am also involved in multiple school activities beyond my role as a teacher. I frequently meet, one-on-one, with the new chancellor and dean. I served as a member of the executive committee for the school curriculum, and on various liaison committees for medical education accreditation visits. I also serve on the school's graduate medical education oversight committee where I am kept informed about local and national residency education issues. I have headed the search committees for various chairpersons (surgery, pathology) and for our current chancellor, Dr. Edward Halperin (Fig. 14S) and our current dean, Dr. D. Donald Miller (Fig. 14T).

One of my most challenging school positions was serving as chairman of the promotions and tenure committee, where I often needed to make Solomonesque decisions. I served in this capacity for 15 years, and feel I was successful in representing both the interests of the faculty and the school. Another challenging part of my daily existence is the required school meetings I must attend while trying to make time for all the other necessary activities, including teaching, research, practice, writing, editing and everyday administrative work.

As director of medicine of WMC, I also have multiple non-school meetings to attend. I am a member of the executive committee of the hospital medical staff and represent our department. I serve as co-chairman of the hospital's medical operations committee. Another time-consuming job is my role as chairman of the hospital's credentials committee where again careful and thoughtful decision making is often necessary. There are also countless unscheduled meetings of ad hoc committees. For example, I recently had to help credential new medical staff from a satellite hospital acquisition, and also was part of an Ebola task force at our institution.

I meet with hospital administration frequently, but not always on a scheduled basis. I serve on the hospital's board of directors as an appointee of both the Westchester County Legislature and the County Executive. I am one of three physicians on the board, and have served for almost seven years under different political administrations. In addition, I currently serve on the board of directors of our state approved malpractice insurance carrier, Academic Health Physicians, a company which only insures full-time academic physicians. With its unique insurance model, it is one of the best malpractice insurance companies in the country, regarding claims and settlements. One of the great challenges I have faced as Chairman, is working for two administrations, both at the school and at the hospital. My ultimate responsibility is to see that the academic medical center thrives as a successful clinical, educational and research unit. During my 34 years of leadership at two medical schools and their affiliated hospitals, I think I have been quite successful in this effort.



Figure 14R: Westchester Medical Center's medicine house staff (2015). I am in the center with arms crossed.



Figure 14S: The chancellor and former dean of New York Medical College, Dr. Edward Halperin, a true Renaissance man. We teach a course on the history of medicine together.



Figure 14T: My wife, Esther, and I with the current dean, Dr. D. Donald Miller.

A chairman also has to be active on the national scene as a representative of the school and hospital. I have been active in the American Heart Association (AHA) and the American College of Cardiology (ACC), our national cardiology organizations. I served on the AHA Board of Directors of Burlington County, New Jersey when I was in the Army and on the board of the Westchester-Putnam County New York chapter where I was recognized with the "Heart of Distinction" award. I will always be grateful to the AHA for the Teaching Scholar Award that helped to support my early endeavors in medical education. Since 1972, I have been an active speaker and presented at many local and national AHA-sponsored meetings, and have served on guideline committees (*see Appendix C #108*). I could not be more active regarding national leadership positions, in the AHA because of time constraints.

Regarding the ACC, I was elected New York State Governor and co-authored the constitution of the new New York State Regional Chapter with my father's cousin, Dr. Leonard Steinfeld, a pediatric cardiologist from Mt. Sinai Hospital in New York. What a thrill to have two Frishman cousins serve as founders of the chapter. I was subsequently elected the first president of the state chapter, which has continued to thrive.

We were able to link the ACC chapter with the New York Cardiological Society, the oldest ongoing cardiology interest group in the western hemisphere, whose origin dates back to 1926. The New York Cardiological Society served as the stimulus to organize the ACC. I was president of the New York Cardiological Society when it aligned with the ACC New York state chapter forming a professional organization that flourishes today with over 1500 members. I have also served as a New York State Regional Councilor for the American College of Physicians, the largest specialty society in the U.S., and was elected a Master of the College.

I also belong to other societies including the Association of University Cardiologists, the Association of Professors of Cardiology and others, although I am not as active in these organizations. In addition, I am a member of the Critical Care Society, having in the past been board-certified in critical care medicine, and a member of multiple pharmacology societies, having been board-certified in clinical pharmacology. I am also a member of multiple geriatric societies, having been board certified and recertified in geriatrics. In addition, I was board certified in medical management, after having taken graduate business courses at New York University in organizational management. I also have a certificate in management from the Wharton School of Business of the University of Pennsylvania (the alma mater of Donald Trump).

Finally, as department chairman I represent NYMC as a member of the Association of Professors of Medicine, part of the Alliance for Academic Internal Medicine. I have served on both the research and publication committee of the organization, recognition reflective of the excellence of our department, and the respect we now receive on a national level from our peers.

During my time as a chairman, I have had some unique experiences. First, we had former President Bill Clinton as a patient at WMC in 2004 (Fig. 14U). He and his wife Hillary have a home in Chappaqua (Fig. 14V), just north of the hospital, and he had his cardiac catheterization and coronary angiogram here. He was found to have triple vessel coronary artery disease and he ultimately underwent coronary artery bypass surgery. I had the opportunity to interact with him on multiple occasions, as I have had with four other presidents: Richard Nixon, Gerald Ford, Ronald Reagan and George H.W. Bush. I have written articles on presidential medical history, and am working on a book related to this topic (*see Appendix Q, Appendix C #369*).

My wife also co-hosted one of the first political fund-raising dinners on March 22, 2000, when Hillary Clinton began her run for the New York Senate. Hilary was still the first lady, and many of

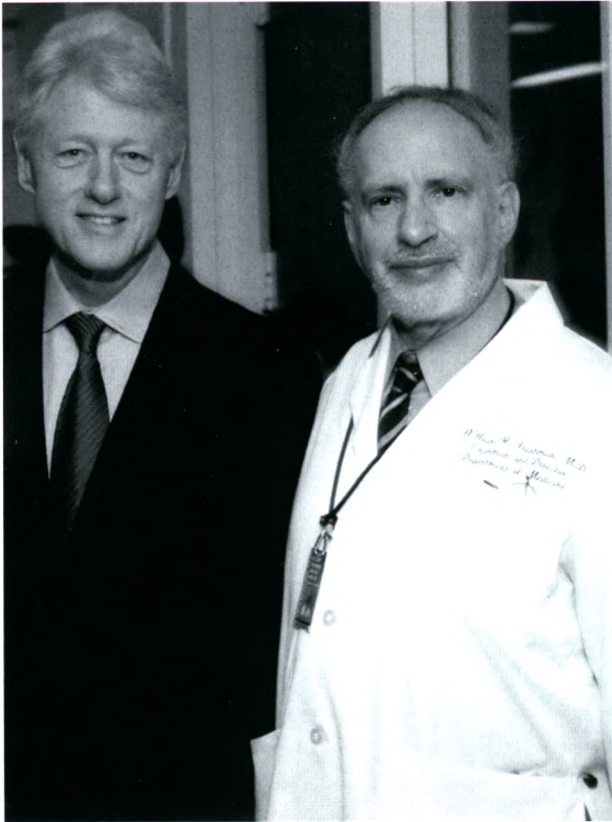


Figure 14U: With former President Bill Clinton at Westchester Medical Center, where he had been a patient.

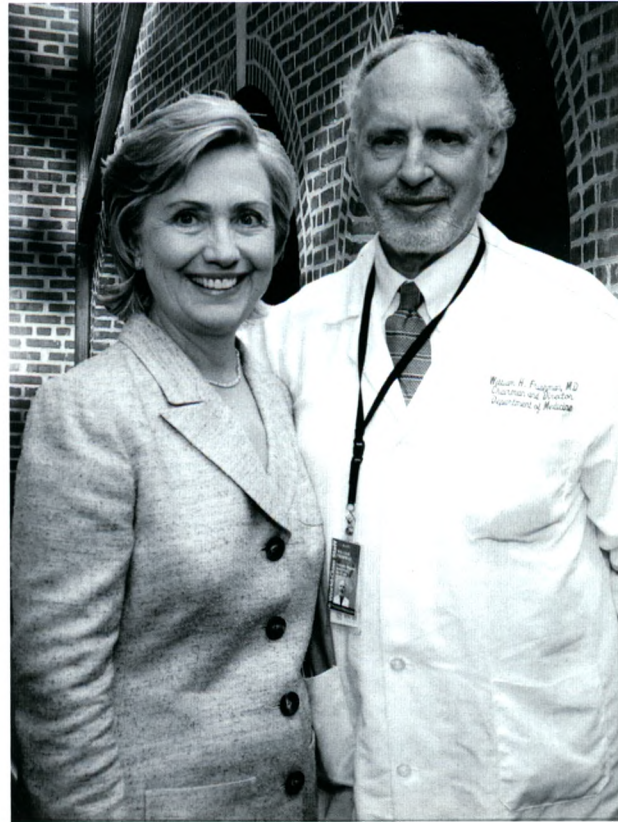


Figure 14V: With Senator Hillary Clinton on a visit to Westchester Medical Center.

my relatives, who are not big donors, attended the event. She is a remarkable individual, as is former President Bill Clinton. Hillary is a wonderful listener, and makes you feel that she is absorbing every word you say.

I also have had the opportunity to interact with Cardinal Edward Egan (Fig. 14W) who was the Archbishop of New York and the head of the New York archdiocese during 9/11. Through the Cardinal, who was my patient, I was able to meet Pope Benedict XVI when he visited the old Yankee Stadium to celebrate mass during its last year of existence. As I mentioned earlier, I tried to get the Pope's autograph on a baseball, but to no avail.

What defines the qualities of a chairman is how he/she deals with crises and challenges. Financial pressures are a constant for any chairman, especially in the current economic environment. During the time our practice was a separate organization, we never missed a payroll, paid our faculty competitive salaries, supported education and research and never had to dismiss anyone, faculty or staff over money issues. However, for financial reasons and to strengthen our group for the future and to maintain financial stability, we recently aligned our practice with the hospital. This was a very difficult decision, and not all the faculty were comfortable joining the hospital, with many wanting to keep their independence. However, I had seen the success of an academic hospital-run faculty practice at Montefiore and Einstein, and felt comfortable with my decision. I subsequently became the first director of medicine of Advanced Physician Services, the hospital run private practice, while continuing to serve in my role as director of medicine for the hospital.

WMC went through a major financial crisis in the early 2000s. The hospital had gone from a county facility to a public benefit corporation, and now had to function, independent of government support. The hospital was operating now as a private facility, yet carrying all the expenses of state unions and pensions. A cash flow problem developed, and cuts in the hospital budget had to be made. At the time, I was the president of our managed care organization representing the entire clinical faculty, and I had recommended that our department take an eight percent reduction in hospital salary support. This move demonstrated to the local and state government officials that we physicians were sincere about helping the hospital. The state subsequently provided aid that saw us through the crisis. My ability to convince the faculty to trust me, and to take this cut, turned out to be my one of my greatest achievements at WMC. Not one physician or nurse left the hospital during this crisis. Ultimately, the overall financial situation improved under a new hospital administration led by Mary Brown, Michael Israel (Fig. 14X), Gary Brudnicki and Marsha Casey, and the previous cuts were reversed. Mary Brown had come from the Ochsner Clinic in New Orleans, Michael Israel from Duke, Gary Brudnicki from St. Raphael's Hospital-Yale, and Marsha Casey from Vanderbilt. The latter three make up the current senior hospital administration at WMC.

NYMC was the school most affected by the terrorist attack on 9/11/2001. One of our major teaching affiliates, St. Vincent's Hospital in Manhattan, was the closest hospital to the World Trade Center. When the planes struck the twin towers in the morning, 150 of our students on site watched the towers fall from the hospital windows, and were available to help with some of the injured patients who were initially brought to the emergency room (E.R.). The students were also there that night when ambulances went passing by the hospital with no casualties being brought in, because there would be no more survivors. The picture of the teams waiting for patients at the St. Vincent's E.R. was transmitted all over the world. I was on call at WMC awaiting casualties which also never arrived. Twenty four hours later, I travelled down to St. Vincent's with the school chaplain, Deacon O'Toole, to speak with the students and residents. The hospital building was covered with photographs of missing people, all victims of the attack. I had asked the students to chronicle the event and experience, but no one could do it. Subsequently, I wrote one of the only articles on 9/11 from the medical perspective (*see Appendix I, Appendix C #268*).

The Catholic Health Care System was a major affiliate of NYMC, where many of our students rotated for their clinical clerkships and sub-internships. But rather than having the success of the financial turnaround at WMC, St. Vincent's Hospital in Manhattan would close forever because of its financial situation. On April 2013, the hospital suddenly shut its doors after being the flagship hospital for the Archdiocese of New York since 1849. The house staff suddenly had no jobs, and we needed to find a place to send our students. Again the department of medicine rose to the occasion and we absorbed the students into our clerkships in our other affiliates, including WMC. At the same time, the 200 St. Vincent residents were absorbed by our affiliates and other surrounding hospitals. A closure of a house staff program of this size had never occurred in the U.S., and we were able to pull through.

I chronicled the St. Vincent closing and its aftermath (*see Appendix M, Appendix C #359*). It is a great tragedy when a hospital, a house of healing, closes its doors; it is similar to a mosque, church or synagogue closing. I witnessed the closure of these great Catholic hospitals, St. Vincent's in Manhattan, St. Agnes in White Plains, St. Clare's in Manhattan, (where Babe Ruth died) Mother Cabrini in Manhattan, St. John's and Mary Immaculate Hospitals in Queens, and St. Mary's Hospital in Brooklyn. Two other hospitals, Our Lady of Mercy Hospital in the Bronx and St. Vincent's Hospital on Staten Island would be taken over by other health care systems. The great Catholic health care system of

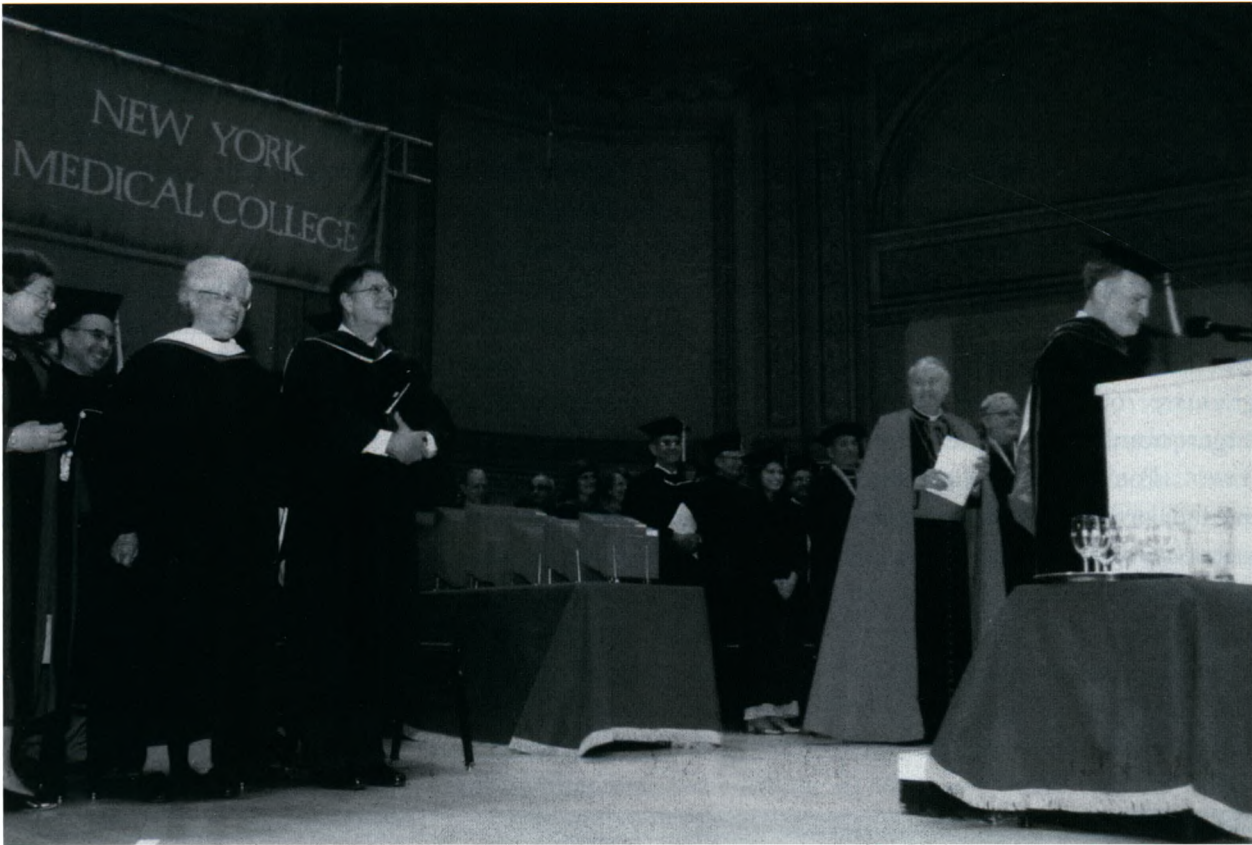


Figure 14W: Marching as the Grand Marshall at a NYMC commencement. Cardinal Edward Egan is standing to my left.

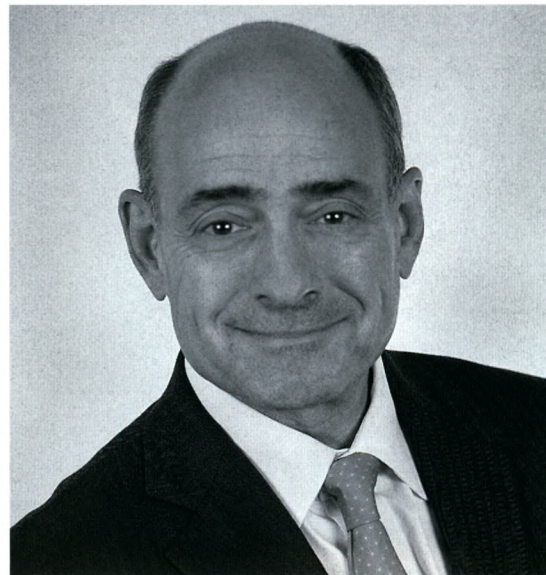


Figure 14X: Michael Israel, president and chief executive officer of Westchester Medical Center and The Westchester Health Care System. The system services the New York's Hudson Valley, which includes eight counties with a total population of three million. One of the most effective hospital administrators I have ever worked for, Israel is credited with turning around a hospital in distress.

New York, which provided such excellent care for millions of patients for over 150 years, would never be the same.

Because of the financial stresses facing the Archdiocese of New York, a decision had been made whether to sell the medical school. Dr. Karl Adler who had replaced Father Barrett as President of NYMC was leading the charge; Dean Ralph O'Connell was ambivalent about the move. I enjoyed working for both of them, but there was great anxiety among the faculty and students regarding the sale. Touro University, an orthodox Jewish school, and the largest Jewish university in the world, would take over the school in 2011. Touro also has four osteopathic medical schools under its jurisdiction, and many other health professional schools located all over the country. It is the first time NYMC would have a parent university. With NYMC and the osteopathic medical schools, Touro would now graduate 760 medical students each year, approximately three percent of the nation's graduates; the largest number from one university.

For me, Touro's takeover of NYMC was a remarkable occurrence. I had worked at Einstein, another orthodox Jewish medical school for almost 25 years as a house officer and a teacher. I would now be working at a second orthodox Jewish school that had previously been a Catholic institution.



Figure 14Y: I have served on the board of the Westchester Institute for Human Development (WIHD) for 10 years. In photo, the nationally renowned institution for patients with developmental disabilities was being recognized by State Senator Nicholas Spano (third from left) and Westchester County Executive, Andrew Spano (center). Between them is Dr. Ansley Bacon, WIHD's director for 30 years. I am standing third from right.

The president of Touro and the medical school is Dr. Alan Kadish, a cardiologist who was a student of mine at Einstein in the class of 1980. We had done research together. On the day that Touro took over the school, Alan asked me to witness putting up the first mezuzah on the doorpost of the medical school administration building, ushering in the fifth era for NYMC. The first NYMC era was the homeopathic period from 1860-1895, the second era was the Flower Hospital period from 1895-1939 (NYMC would be one of the first medical schools in the U.S. to own its own hospital); the third era was the NYMC-Flower Fifth Avenue Hospital period from 1939-1974. The Catholic archdiocese era would go on from 1974-2011. Now with Touro, we are in the orthodox Jewish era. Currently, I am the only faculty member to be a professor at both orthodox Jewish medical schools, Einstein and NYMC. The school seems to be thriving under Touro. Four times in the past 150 years, NYMC was threatened with closure, only to rise again under new management.

I was also part of another turnaround. The Westchester Institute for Human Development (WIHD) is a not-for profit institute dedicated to the care of the developmentally disabled in the lower Hudson River Valley. The institute had been part of the medical school and then part of WMC. Our grandson Aaron, who has disabilities, has received services from the institute. The facility had been losing money while it was part of WMC, and the hospital spun it off as an independent entity. I joined the original three member board of directors as an officer 10 years ago (Fig. 14Y). We started without having any money, and, through political lobbying, and excellent management, the institute is now a great success. WIHD is one of the leading facilities of its kind in the U.S. (University Center for Excellence in Disabilities (USED)). It is a major site for clinical care, child advocacy, teaching and research. I have remained on the board of directors, and continue to serve as a board officer. From this experience, and the experience at WMC, I have learned that with vision and leadership, one can turn a money-losing academic organization into a successful enterprise.

The cardiology section of the department has always put great demands on me. When I joined NYMC, cardiology was an independent private practice group that I was trying to repatriate into the departmental practice. In 2011, most of the group left WMC to join the Columbia Medical School practice. Essentially we were left with few cardiologists at the hospital, which also threatened the cardiothoracic program and the hospital in general. To help deal with the threat, I assumed the role of acting chief of cardiology. The remaining cardiologists became employees of the hospital and a group was founded called Westchester Heart and Vascular, which included our outstanding cardiothoracic and vascular surgeons. I was the founding chief of cardiology, working closely with Alan Bey, a highly capable hospital administrator of this new practice entity. We then went on to hire 11 new cardiologists within two months, to replace the group that had left, including new interventional and non-invasive practitioners from major academic medical centers. We also recruited a new group from Orange County (a northern region), and by this action I was able to make up for the loss of cardiothoracic and vascular surgery referrals that had been caused by the Columbia group's departure. Together, we rebuilt a stronger cardiology section, now linked to the hospital and department. During my tenure, the hospital started a catheter-based valve replacement program, built a new hybrid cardiovascular lab and we strengthened the fellowship and research program. I also assumed responsibility for the school's pathophysiology course which had been run by a member of the previous cardiology group. I served as acting chief for two and a half years and led the search for my permanent replacement, Dr. Julio Panza, from Georgetown. The cardiology crisis was one I handled very well, and I am very proud of what I had accomplished, rising to help save both the cardiovascular program and the hospital. Remarkably, I was able to run the cardiology section and the department of medicine together without a problem, although I postponed taking a vacation for two years.

I have witnessed many hospital closures, but now I am part of a rescue. St. Francis Hospital, a 100-year old facility in Poughkeepsie, New York, was failing and Westchester Medical Center purchased the hospital, changing its name to Mid-Hudson Hospital. As chief of medicine at both WMC and Mid-Hudson, I have worked to bring both attending staffs together as one clinical unit, and in this effort, we have been successful. It is gratifying to be part of a rebirth, not a closure of an important community hospital.

Most recently, WMC has grown exponentially from a 600 bed Valhalla based campus to a 2000 bed Health Care System (Westchester Health), responsible for the care of patients in a catchment area of three million residents covering an area the size of Connecticut. Our system now includes nine hospitals, with 12,000 employees and WMC remaining the main tertiary care facility. When I came to WMC and NYMC from the Bronx in 1997, my vision in line with that of administration was to create a care system that was as good as, or better than any healthcare system or hospital facility in New York City. We envisioned that any resident of the Hudson River Valley, adult or child, would never have to go to the city for their health care. With our able administration and clinical staff we have accomplished that goal. I am so proud to have been a part of this effort. To further recognize the accomplishments of our academic medical center, we joined with the Philips Corporation, one of the three largest medical equipment companies in the world, to be their clinical partner in testing new technologies, a unique arrangement that has received international recognition. Through this partnership, we have also begun a state-of-the-art telemedicine program that will allow us to help better manage patients located in our northern hospital affiliates, especially those individuals with critical care problems.

The medical center was also an awardee of one of the largest federally funded Delivery System Reform Incentive Payment (DSRIP) grants to create an innovative health care program for both out-patient and in-patient care in our region. At this stage of my career, I have seen just what effective leadership can accomplish in clinical care, medical education and research. What an experience it has been.

On another note, I have been exposed to four interesting disease epidemics during my 50 years as a medical student, resident and attending physician. The first was the epidemic of serum hepatitis brought on by contaminated blood transfusions and needle sticks. One of my co-residents at Montefiore died from serum hepatitis and liver failure caused by a contaminated needle stick. With better surveillance of the blood supply, and strict needle and syringe precautions, this is no longer a major problem.

The second was the "swine flu" epidemic of 1976 (*see Chapter 10*). I was stationed at Fort Dix in February 1976 when the only fatality from swine flu occurred in a basic trainee. Since the virus was felt to be similar to the one brought on in the 1918-19 world influenza epidemic, a national panic set in that was fanned by the press. However, there was no actual swine flu epidemic in 1976. President Gerald Ford did order a national swine flu vaccination program that led to a paralyzing illness in some patients from the vaccine (Guillain-Barre syndrome). This decision, based on inadequate information and bad advice, may have cost Ford the election in November, 1976, to Jimmy Carter.

Third, I lived through the acquired immunodeficiency syndrome (AIDS) plague that began to emerge in 1981-82. When I became the chief of medicine at the Einstein College Hospital at, AIDS was not yet recognized as a disease entity. On morning report the residents would present cases to me of homosexual patients having a diarrheal illness which was labeled "gay-bowel disease." Subsequently, unusual pneumonias were seen that previously only occurred in immunocompromised patients. It was then that AIDS was described as a new clinical entity, and in the Bronx we were one of its epicenters.

Before an effective therapy was developed, almost all the patients with AIDS died, and our Bronx hospital wards were full of these terminally-ill patients. I knew physicians who had died from AIDs, related to contaminated needle sticks or their own homosexuality. A report we published described a difference in AIDS-related illness due to the mode of infection. We showed that the drug-addicted patients had more heart involvement with the disease, while the homosexual patients had more Kaposi's sarcomas (*see Appendix C #196*).

One of the great pharmacologic advances that occurred in my lifetime was the rapid development of anti-HIV drugs by the pharmaceutical industry, a feat that has taken AIDS from being a fatal disease to a chronic outpatient condition, with a very low mortality; indeed, a miracle.

Fourth, as Director of Medicine at WMC, I have recently been on the frontline in helping to develop Ebola virus precautions and treatment protocols for our hospital, a designated center for treating the disease.

In my final reflections, what have I learned as a chairman of medicine, having served in this capacity for a longer term than most? I am fond of lists, and have developed my top seven attributes for being an effective chairman:

1. A chair needs to be resilient, and demonstrate an aura of equanimity at all times.
2. A chair needs to be honest, transparent, professional, discreet and loyal to his/her faculty.
3. A chair should first respect his students, researchers, nurses, support staff and faculty in the hope of then earning their respect.
4. A chair should do everything he/she expects from the faculty, and lead by personal example. (He/she should practice, teach, write, edit and perform research.)
5. A chair should have an ongoing vision for the department, linked to that of the hospital and the medical school.
6. A chair should be a champion of quality improvement and performance enhancement.
7. A chair should be a champion of diversity and inclusiveness in the department.

I have also learned from both experience and observation what defines the best organizational model for a modern academic department of medicine. The chairman should be the chief of medicine for both the school and hospital, and should have oversight of all the training programs, research, and practice, using leadership and faculty consensus. The overall department should be divided into sections with research institutes, all reporting to the chair. Each section and section chief should be empowered to run their own academic activities (teaching, research, practice) with the direct oversight of the chair. The chair should have the means to help sections that have financial problems either through an academic tax of all the sections, or from garnering additional support from the hospital and medical school. The chair also needs to be a visionary, and have the means to implement his/her programs hiring excellent managers to carry out the departmental goals and objectives with appropriate resources provided. The private practice of the department should be run by the hospital as a multi-specialty group, tied to an academic mission with the chair responsible and accountable for the clinical activities and quality of care provided by the faculty and trainees. A pure private practice outside of the hospital's control, even if affiliated with the medical school, will not perform as an academic unit.

I have now been chairman of medicine over 18 years (Fig. 14Z), which some might think is too long a term. Being in my positions, one always hears threats from different constituencies (individual faculty, disgruntled section heads), but one should always be true to one's self and always look out for the entire enterprise. One of my favorite poems that inspired me since I was a young boy was *If* by Rudyard Kipling (*see page ix*).

As I mentioned earlier, being chairman and hospital chief are the best jobs in academic medicine. At NYMC and WMC, I have led a strong department that is highly respected nationwide. I had aspired to become a chairman since I was a medical student, and during my lifetime was able to achieve my dream (*see Appendix H*). It has been said that what you learn and the character you build while achieving your goal are more important than achieving the goal itself, and I must agree.

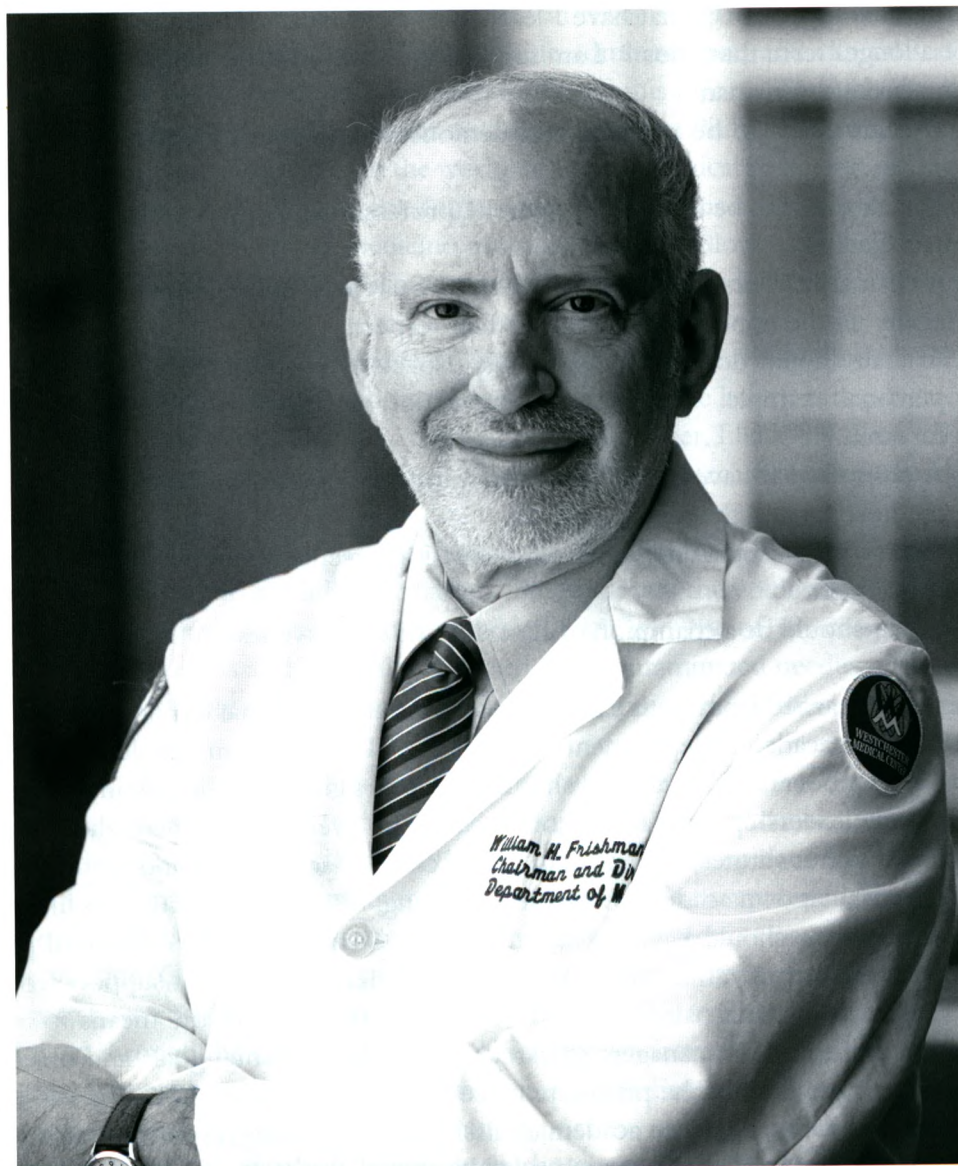


Figure 14Z: In 2016, beginning my nineteenth year as chairman of medicine.

I would like to close with several aphorisms I've written over the years that relate to the topics discussed in this chapter:

On Being a Chairman of Medicine

"The life of a Chairman of Medicine is similar to that of a baseball player. If 30 percent of the time you accomplish what you want to do, you're a .300 hitter, a star. Sometimes you hit a homerun, but more often you strike out. There are also people out there who want to send you down to the minor leagues. However, always give it your best every day when you come up to bat."

"Unlike administration and batting, taking care of patients is similar to playing the outfield. You have to avoid making errors when the ball is hit to you."

"A Chair of Medicine leads by his/her personal example, and not by intimidation."

"The success of a chairman is measured not by his/her personal accomplishments, but by the accomplishments of the departmental faculty and trainees."

On Leadership

"Always remember that smart people preceded you, and have confronted many of the same problems you face. Learn from history, so as to avoid making the same mistakes of your predecessors."

"The four major qualities of a leader are that of being honest, loyal, discreet and transparent. These are the same qualities that you should look for in other people."

"A leader must have vision of where he/she wants to go, and the ability to move people in that direction."

Students and Teaching

"The best teachers of medicine respect their students."

Health Care

"Medicine is a ministry, not an industry."

"In health care, everyone's job is important, and each person is deserving of respect for what they do."

"A physician's major role is to relieve pain; physical pain, psychological pain, and spiritual pain."

Taking Care of Patients at the Bedside

"Always find some point of commonality with a patient when you go to the bedside. It fosters the therapeutic bond."

Nurses

"Always honor the nurses. They are the individuals who spend the most time with patients in the hospital."

The Placebo Effect

“The good physician gets a positive placebo effect from patients by touching, kindness and just being there. This is an important part of the therapeutic response.”

On Mentoring

“Try to find a mentor; he/she will make your professional career and personal life easier to manage.”

Commuting to Work

“You should always work on the side of the bridge where you live.”

On 9/11

“In the aftermath of this national tragedy, we must rededicate ourselves to doing good in our clinics and hospitals where we care for the sick and infirm, in our laboratories where we search for the cures of human ailments and in our pursuit for world peace. Our affiliated institutions and their staffs were examples for the world in demonstrating the capacity of the human spirit, and their actions will forever be enshrined with the memories of those who were lost.” (*see Appendix I, Appendix C, #268*)

On Research

“The joy of research comes from the privilege of being the first person to uncover a truth that God already knows.”

On the Existence of God

“One only needs to observe the remarkable ultrastructure of a human cell, and the miracles one sees as a physician-cardiologist, to know that a gracious loving God exists.”

EDITORIAL

A Day of Remembrance*

A year has passed since the terrorist attacks in New York, Pennsylvania and at the Pentagon. We have assembled today as a health-care and research community to remember those souls who were lost in those disasters, and to also recognize the firemen, policemen and paramedics who gave up their lives in the rescue attempts at the World Trade Center.

The entire world witnessed two aspects of human nature on September 11, 2001: the capability to do great harm and the capability to do great good. New York Medical College (NYMC) and its affiliated teaching hospitals in Manhattan were on the front line that day. St. Vincent's Medical Center-Manhattan was the closest trauma center to the World Trade Center. If you stood outside St. Vincent's emergency room on that bright clear morning, just before the attack, and lifted your hands, you could almost touch the towers as they rose majestically out of lower Manhattan.

On that day, 80 third- and fourth-year NYMC medical students were at St. Vincent's participating in required clinical clerkships and various elective rotations. For many of the students, it was their first clinical experience in a hospital, and for others, their first assignment in Manhattan. Another 200 of our students were working in what were to be the back-up hospitals in mid-Manhattan (Metropolitan Hospital) and other facilities located in the Bronx, Staten Island, and in Westchester County. Many of the students at St. Vincent's were direct witnesses to the airplane attacks and watched the collapse of the Twin Towers. The students became part of the triage and emergency treatment teams joining residents, fellows, attending physicians, nurses, and other healthcare personnel in treating hundreds of individuals, including the most severely injured during those first hours after the attack. They saw the entire hospital mobilize itself in response to the disaster with a calm efficiency, treating those injured with great competence and poise. Mayor Rudy Giuliani would say that day, "Thank God for St. Vincent's Hospital."

The whole world will also remember the news videotapes taken that night outside St. Vincent's emergency room with emergency staff waiting for additional injured from the collapsed buildings who would never come. Indeed, it was those television images that made the world aware of the extent of the tragedy, that those thousands of individuals caught in the collapse of the towers were not injured, but dead.

We were greatly affected by September 11, 2001. Clearly, our feeling of security in this country was breached. However, we have also suffered as a medical community. Many of our hospital nurses lost their husbands who were firemen and policemen. Members of other hospital staffs lost loved ones. The husband of a medic from our helicopter ambulance service at Westchester Medical Center was killed. One of our medicine attending physicians lost his sister. The only physician to die at the World Trade Center was one of our medical residents who lived in the area of the World Trade Center

*Given at the September 11, 2002 Memorial Prayer Service at New York Medical College

and by chance happened to be off that day. She had been on call Monday night and the Bell Commission 405 requirements in New York mandate a day off for a house officer after an overnight call.^{1,2} She was last seen by witnesses running from her apartment toward a makeshift first aid station that had been set up at the base of the North Tower. She was never seen again.

Needless to say, the events on September 11 also affected our medical research projects and our clinical practices. I am a coprincipal investigator of the Women's Health Initiative Trial in New York. Five of our study subjects lost children, and our head research nurse lost her husband. For weeks, because of fear, many of the study subjects refused to come for follow-up visits to our research clinic at Union Square in lower Manhattan. Our cardiology practices were crowded with an increased number of individuals with palpitations and atypical chest pain, which was part of the posttraumatic stress syndrome seen in so many New Yorkers. We saw disabled firemen in our offices with chronic cough that would soon be described in the *New England Journal of Medicine* as "World Trade Center Cough."^{3,4} One of my female patients lost a son who had his birthday on September 11. He had gone to work earlier than usual that day so he could leave his office early in the afternoon to celebrate with his wife and children. Subsequently, his only sibling, an Army officer, was deployed for Afghanistan days later.

In the aftermath of this national tragedy, we must rededicate ourselves to doing good in our clinics and hospitals where we care for the sick and infirm, in our laboratories where we search for the cures for human ailments, and in our pursuit of world peace. Our institutions and staff were examples for the world in demonstrating the capacity of the human spirit and their actions will forever be enshrined with the memories of those who were lost. Just after September 11, 2001, the St. Vincent's students and house officers who were clearly shaken by the event asked me if everything will be all right. "As in the past," I replied, "if we dedicate ourselves to improving the human condition, we will not only be all right, but we will be stronger and more resilient in the future." That being said, we can no longer walk outside St. Vincent's emergency room and lift our hands to touch the World Trade Center towers. However, if you do lift your hands in the direction where the towers stood, you will feel a gentle breeze caressing both your fingers and your face.

William H. Frishman, MD
Editor in Chief

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COMMENTARY

THE AMERICAN
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Fifty Years of Beta-adrenergic Blockade: A Golden Era in Clinical Medicine and Molecular Pharmacology

The development and subsequent clinical application of various beta-adrenergic receptor blocking drugs during the past 50 years has represented one of the major advances in human pharmacotherapy. Beginning in 1958 with the introduction of dichloroisoproterenol, no other class of synthetic drugs has demonstrated such widespread clinical utility in the treatment of both cardiovascular and noncardiovascular diseases. In addition, these agents have served as molecular probes that contributed greatly to our understanding of both the structure and workings of the ubiquitous 7 transmembrane G protein-coupled receptors, which mediate the actions of many hormones, neurotransmitters, and drugs.

Beta-adrenergic blockers are competitive pharmacologic inhibitors of catecholamine actions that influence a wide number of physiologic and metabolic activities in human beings. It has been shown that the effects of catecholamines ultimately depend on their chemical interactions with specific adrenergic receptors, membrane-bound macromolecular glycoprotein structures located on cell membranes, conceptual entities that were not well defined until the 1980s. More than 100 years ago, early investigators conceived that catecholamines were binding selectively to receptor-like structures in mediating their pharmacologic actions. In 1948, Ahlquist conducted a series of classic pharmacologic studies and concluded from his findings that there were 2 distinct organ responses to catecholamine drugs that he called alpha- and beta-receptor mediated.¹

In 1958, the compound dichloroisoproterenol, synthesized by Eli Lilly Laboratories, was found to inhibit the activities of epinephrine and was thus considered the first beta-adrenergic blocker.² However, its potential clinical application was not initially appreciated. In the early 1960s, Black et al at Imperial Chemical Industries in Great Britain were working on a series of beta-adrenergic blocking compounds, pronethanol and propranolol, that they hypothesized would lower myocardial oxygen consumption by interfering with the effects of catecholamines, and, therefore, would be useful for the treatment of angina pectoris, hypertension, and arrhythmia.³ Although pronethanol was effective in patients with angina pectoris, it was propranolol that became the prototype beta-blocker with proven efficacy in both intravenous and oral forms for the treatment of cardiovascular disease. In 1964, propranolol became the first major advance in the treatment of angina pectoris since the introduction of nitroglycerin almost 100 years earlier.

In addition, it quickly became an accepted treatment for arrhythmia, hypertension, and hypertrophic cardiomyopathy.

The potential adverse reactions related to the anti-catecholamine effects of propranolol on heart rate, myocardial contractility, and bronchial tone led to ongoing refinements in the pharmacologic structure of beta-blockers and subsequent advances in drug delivery.⁴ The evolution in drug development led to the introduction of drugs having relative selectivity for cardiac beta₁-receptors (metoprolol, atenolol), partial adrenergic agonist activity (pindolol), concomitant alpha-adrenergic blocking activity (labetalol, carvedilol), and direct vasodilator activity (nebivolol). In addition, long-acting and ultra-short formulations of beta-blockers were developed.

Years after propranolol was introduced, studies showed the class of drugs also was useful for treating patients with mitral valve prolapse, pheochromocytoma (labetalol), the hereditary QT prolongation syndrome, hypertensive emergencies and urgencies (labetalol), and for the treatment and prevention of acute aortic dissection. Moreover, both intravenous and oral forms were able to reduce mortality in survivors of myocardial infarction, the first class of drugs shown to do so.^{5,6}

Remarkably, in the 1990s, some beta-blockers also were shown to reduce morbidity and mortality in symptomatic patients with congestive heart failure, a clinical diagnosis for which beta-blockers had been contraindicated previously.⁷ This revelation has led to a complete rethinking of the pathophysiology of heart failure, thought now to be aggravated by the adverse effects of increased neurohormonal stimulation of the heart.

Beta-blockers now have application that extends beyond cardiovascular use, to the prevention of migraine headache, the treatment of benign essential tremor, for patients with pheochromocytoma and thyrotoxicosis, and in topical ophthalmic formulations for reducing intraocular pressure in patients with open-angle glaucoma. The drugs also have been used to reduce portal hypertension in patients with liver cirrhosis and to aid in the management of delirium tremens and stage fright.

After decades of clinical use, the beta-blocking drugs have demonstrated a remarkable record of clinical safety in patients of all ages, and the ability to be combined successfully with other drug classes for the treatment of cardiovascular disease. Their continued use in patients undergoing

cardiovascular and noncardiovascular surgery also has been shown to reduce both intra-operative and peri-operative mortality and morbidity.

Almost in parallel with the clinical introduction of beta-adrenergic blockers came an explosion of research studies that contributed to the scientific understanding of receptor structure, function, and regulation on the molecular level. Beta-adrenergic receptor agonists and blockers have served as the biologic probes to help answer fundamental molecular pharmacology questions.

The concept of adrenergic receptor stimulation for mediating catecholamine actions had been recognized throughout the 20th century, and during the past 35 years, scientists began to study the molecular steps that lay between the putative receptors and agonists and the response elements within the cell.⁸ It was found that adrenergic receptors, when stimulated, can trigger the production of second messengers (eg, adenylyl cyclase) via an interaction with the coupling proteins attached to the beta receptor. The beta- and alpha-receptors are part of a major class of G protein-coupled receptors or 7 transmembrane receptors—the most important targets of clinically used drugs—that also zero in on serotonin receptors, histamine receptors, and angiotensin-II receptors.⁸

Using radioligand labeling techniques and purification methods, Lefkowitz and his colleagues⁸ helped to identify the structures of the adrenergic receptors as membrane-bound polypeptide chains with a molecular weight of about 67,000 Da. The beta-receptors consist of 7 transmembrane alpha-helices of 20-28 amino acids joined by alternating extracellular and cytoplasmic loops.⁸ Lefkowitz was successful in reconstituting the beta-receptors and demonstrated that the receptors could convey catecholamine responsiveness when transplanted to previously unresponsive organic systems.⁸ Subsequently, the receptor genes and cDNAs for beta-receptors were cloned in 1986, and the 3-dimensional crystalline structure of the beta₂ receptor was recently described in 2007.

A major contribution to our understanding of beta-receptor functioning came with the fundamental description of receptor desensitization.⁸ In contrast to the older concepts of adrenergic receptors as static entities on cell membranes that simply serve to initiate a chain of events, newer concepts suggest that adrenergic receptors are subject to a wide variety of controlling influences, resulting in the dynamic regulation of receptor sites and their sensitivity to catecholamine agonists. Changes in tissue concentration or sensitivity of receptors are important in drug activity and in the pathophysiology of disease. This desensitization phenomenon has been shown to be caused not by a change in receptor function or degradation, but rather by catecholamine-induced changes in the conformation of the receptor sites, which renders them ineffective. Rapid desensitization of beta receptors was proved to be mediated by agonist stimulation of beta-adrenergic receptor kinases (β ARK) or GRK2, which phosphorylate receptors and decrease the coupling of G proteins to adenylyl cyclase.⁸

However, it also was found that phosphorylation of the receptor itself was not sufficient to fully desensitize receptor function. A second reaction must occur that involves an arresting protein known as beta-arrestin.⁸ Through this desensitization process, internalization of receptors on the cell membrane also occurs. In contrast to adrenergic agonists, beta-adrenergic blocking drugs by themselves do not induce desensitization or changes in the conformation of receptors. They also can block the ability of catecholamines to desensitize receptors. More work is being carried out with beta-arrestin agonists to form “super” beta-blockers that can turn off G protein-mediated signaling of the beta receptor but still maintain the benefits of continued beta-arrestin-mediated signaling on cell survival systems.⁸

Based on the concept of a functional adrenergic receptor that mediated the effects of catecholamines, the introduction of the first beta-blocker caused a revolution in human pharmacotherapy that has impacted favorably on the health of millions of patients with a wide variety of cardiovascular and noncardiovascular diseases. Their introduction further opened the door to fundamental discoveries of basic receptor structure and function, which have influenced the development of other drug classes for other medical conditions. In addition, the 50 years of beta-blocker experience, with the ability to modulate successfully excessive catecholamine activity, has reaffirmed the early observations and descriptions of the “ancients” who believed that imbalances in naturally occurring humors could cause disease, while the reestablishment of humoral balance would contribute to health. Indeed, how golden is the legacy the beta-blockers have given us.

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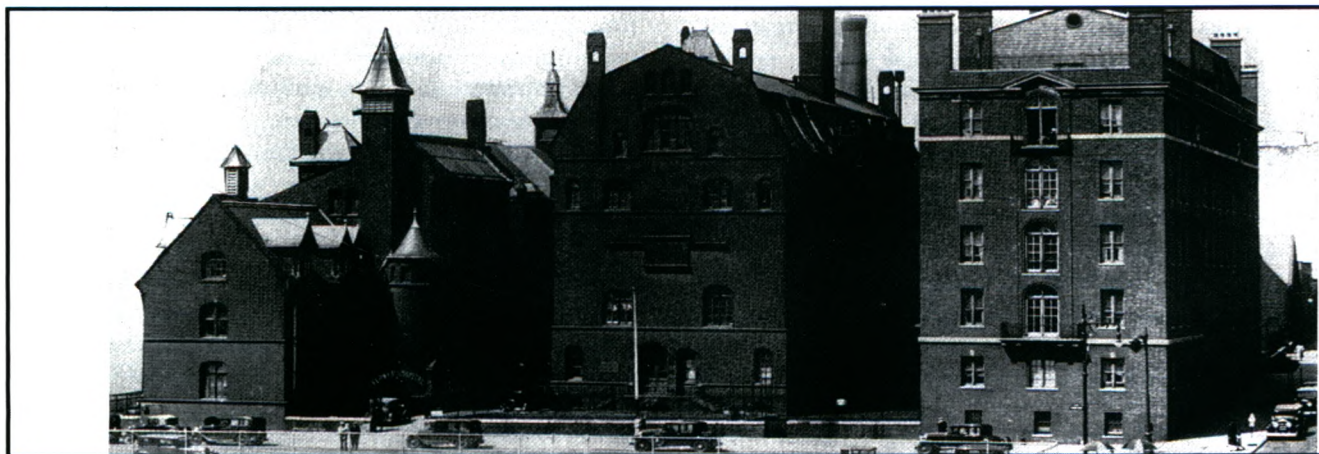
New York Medical College
150 YEARS OF EXCELLENCE (1860-2010)
William H. Frishman, M.D., M.A.C.P.
Rosenthal Professor and Chairman of Medicine

The 150th anniversary of any institution is naturally a time of great celebration. Since this year is New York Medical College's sesquicentennial, we strove not to be exceptions to this maxim. We recall that ours is a special school, with an impressive history that, in itself, chronicles the evolution of American medicine, bioscience and public health.

The school was founded in 1860 by New York City civic leaders, among them the reformer and New York Tribune editor William Cullen Bryant, because of a glaring need to address major deficiencies in medical education, and to alleviate the city's overcrowding, poor nutrition, pollution, and resulting epidemics. The founders envisioned a new kind of medical school based on the latest scientific knowledge, combined with principles of healthy living and patient-centered care that would address these issues.

When the College opened its doors, during the year of Abraham Lincoln's election to the Presidency at the dawning of the Civil War, 59 students and 8 faculty members assembled at the school's first facility located at the corner of 20th Street and Third Avenue, near Gramercy Square in a building on the top three floors above a grocery store. The annual tuition was approximately \$100.00, and a college degree was not a prerequisite for admission.

After attending two courses of lectures, studying medicine for three years and having "apprenticed oneself to a respectable practitioner of medicine," a student became a candidate for graduation-contingent upon demonstrating good moral character and attaining the age of 21.



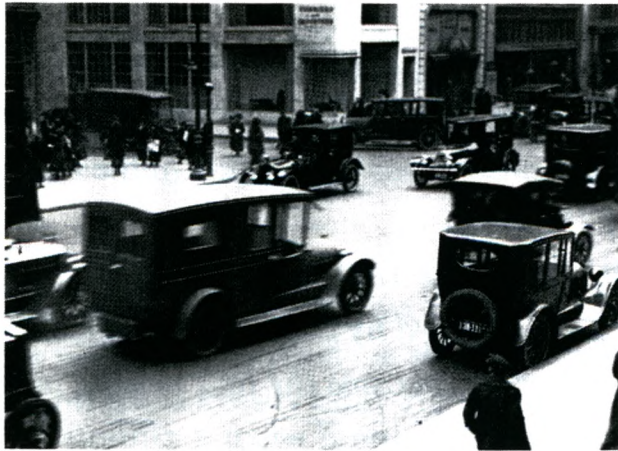
New York Medical College would become the first United States medical school to require an entrance exam, and its innovative three-year curriculum was ultimately adopted by other medical schools including Harvard and the newly formed Johns Hopkins University whose first President, Ira Remsen, was a graduate of the College's Class of 1865.

Innovative in education from its beginnings, New York Medical College created the first Department of Pediatrics in the United States led by Dr. Abraham Jacobi, who was also the founder of the specialty. In 1875, NYMC became the first private medical school in the nation to train its students at an urban hospital when it affiliated with Metropolitan Hospital Center, located first on Ward's Island in the middle of the East River, then Welfare Island (Roosevelt Island) and ultimately, in 1957 on Manhattan Island. For over 75 years, NYMC students were ferried by boat to their clinical rotations at Met on Welfare Island. Legend had it that some NYMC students skipped taking the boat and swam to Welfare Island on top of the water, some did it underwater, and a few were said to have walked on water. The College's 135-year-old continuous affiliation with Metropolitan remains the oldest partnership between a freestanding private medical school and a public hospital in the United States.

NYMC also recognized the need to own its own teaching hospital. It became the first American medical school to do so, opening the Flower Free Surgical Hospital in 1989, next to the newly relocated medical school on 63rd Street and York Avenue. The student magazine, "The Chironian" had the following quote describing Flower Hospital: "to embrace under its New York Medical College jurisdiction, a free hospital to care for the poor and the clinical instruction of its students." Flower Hospital would serve as the model a few years later for the newly created Johns Hopkins Hospital and other medical school-owned university hospitals.



Front Yard of New York Medical College with Flower Hospital in background



Ambulance Call in the Nineteen Twenties

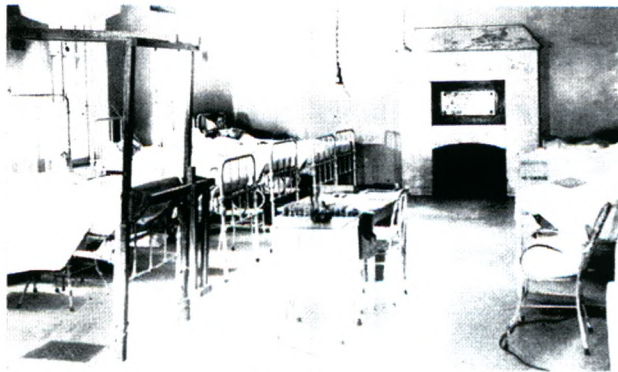


The site of the new building was Sixty-fourth Street and York Avenue in the shadow of the Queensboro Bridge. A surgical hospital was erected next to the College and was named in honor of Governor Flower.

The hospital had two hundred beds and provided care for both private and charity patients. It maintained very active ambulance and emergency services.

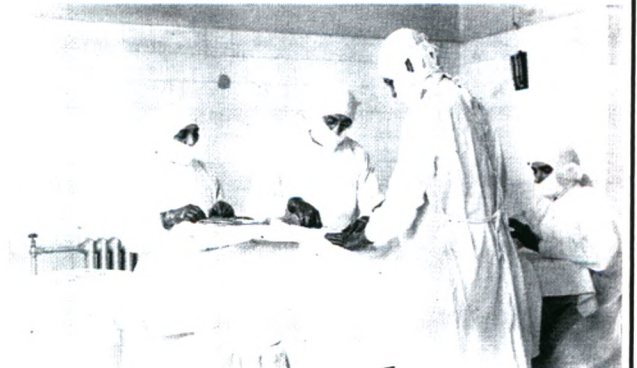


Emergency Room



Charity Ward

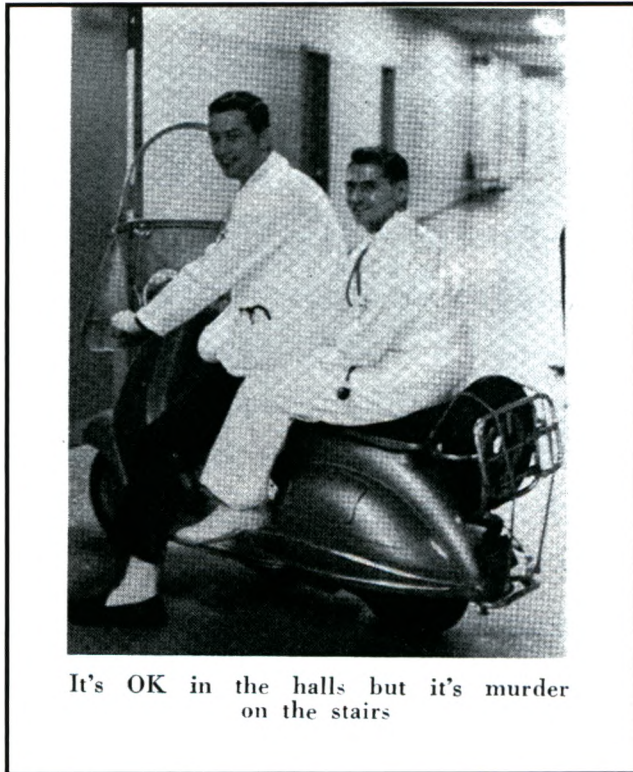
Early Operating Room



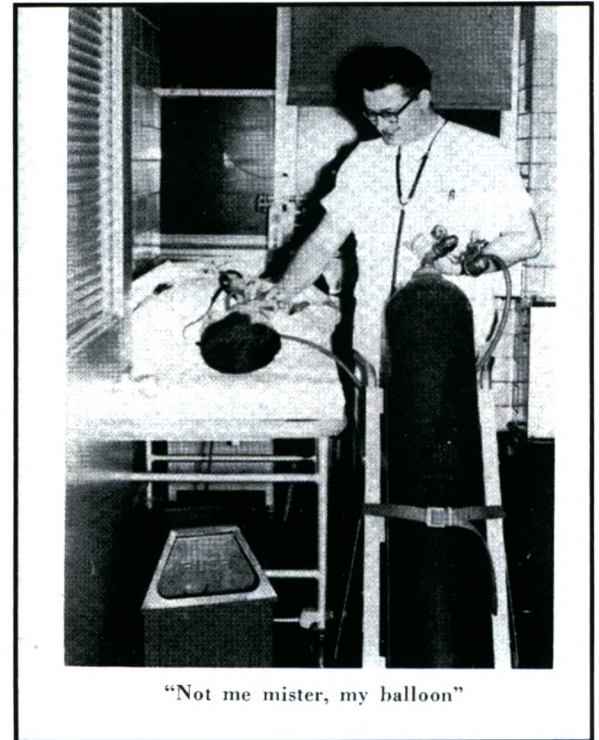
At its new location, the medical school and hospital flourished. In 1896, it was noted that NYMC had the highest grade performance among all schools on the New York State licensure exam, a tradition that continues today by our student performances on the National Board Exams. The College was the nation's first medical school to implement a three-year (in 1870), and later a four-year curriculum, and was among the first to accept women and minority students as far back as the 1870's. The school would ultimately merge in 1918 with a sister school, the New York Medical College for Women which started in 1863. A NYMC graduate, Franklin Gardiner, was the family physician for President Benjamin Harrison from 1889-1993 and diagnosed the first lady, Mrs. Harrison, with the tuberculosis that ultimately, caused her premature death.

One hundred years ago, in 1910, all American medical schools were inspected by a national commission led by Abraham Flexner. At the time, the school's dean was Dr. Royal Copeland, an ophthalmologist and the first physician to perform a corneal transplant. He would ultimately go on to serve as the Commissioner of Health in New York City during the 1918-1919 Spanish influenza pandemic, and later served as a United States Senator for three terms. Under Copeland's leadership, the school passed the Flexner inspection with commendation, especially regarding the superior performance of NYMC students on the state licensure exams. The mission of the school, as stated in 1910 and only somewhat modified in subsequent years, was and is "to train superior clinical physicians with strong scientific underpinnings." In 1910, the school's research enterprise began to flourish both on campus and at the affiliated hospitals. In 2010, a century after the Flexner Report, the school continues to enjoy the highest level of medical school and health university accreditation by all the national certifying organizations.





It's OK in the halls but it's murder on the stairs



"Not me mister, my balloon"

Beyond influenza, NYMC also has risen to the challenges of other 20th century crises. The College dispatched a special medical unit of physicians and nurses during World War I, and it introduced an accelerated three-year M.D. program that supplied 650 urgently-needed physicians during World War II. The latter program lasted through 1946, and the school was commended by the United States Army and Navy for its role in expanding the medical corps during wartime.

In 1936, the decision was made to move the medical school and its hospital from 63rd Street and to merge with Fifth Avenue Hospital at 105th Street across from Central Park. The facility, which became known as New York Medical College/Flower and Fifth Avenue Hospitals, had a new instructional building, modern research facilities and a state-of-the-art 600-bed university teaching hospital.

Educational innovations continued at the new facility and at nearby affiliated Metropolitan Hospital, including a fourth-year year medicine subinternship where students would work as interns—a totally new concept at that time.



This is not what was meant by intern matching



When they tell us to scrub, we scrub!

In the 1970s, after serving as a landmark New York City institution for more than 100 years, the College, then under the sponsorship of the Archdiocese of New York, was invited by Westchester County leaders to move to its current location in Valhalla. At its new campus site, the school began its new affiliations with Westchester Medical Center, St. Vincent's Medical Center (with its own history dating back to 1849), Terence Cardinal Cooke Health Care Center (formerly the Flower and Fifth Avenue Hospital building complex) and Lenox Hill Hospital. In the Bronx were affiliated Lincoln Hospital and Our Lady of Mercy Hospital (now Montefiore North). The College became the only school to ever affiliate with the New York Eye & Ear Hospital, the first specialty hospital in the United States, dating back to the 1830's, and with other institutions in Queens, Staten Island, Southern and Western Connecticut, and throughout the entire Hudson Valley Region, including Keller Army Hospital and the Montrose VA. Since 1980, the school has also had an affiliation with the Westchester Institute for Human Development.

Today New York Medical College is the nation's third largest private medical school. Yet there is no other medical school in the country that can match the diversity of our patient population and the variety of our public, private, suburban, inner-city, county, tertiary care teaching hospitals and clinics.

The College has also been at the forefront of biomedical research and public health. During the past 50 years, the university opened its Graduate School of Basic Sciences, offering Masters and Ph.D. degrees, and the School of Health Sciences and Practice, an offshoot of the Graduate School of Medical Administration as it was first named. In recent years, a new instructional building (the Medical Education Center), the Learning Center (SHSP building), the Health Sciences Library and the Maria Fareri Children's Hospital were added to the Westchester/Valhalla Campus.

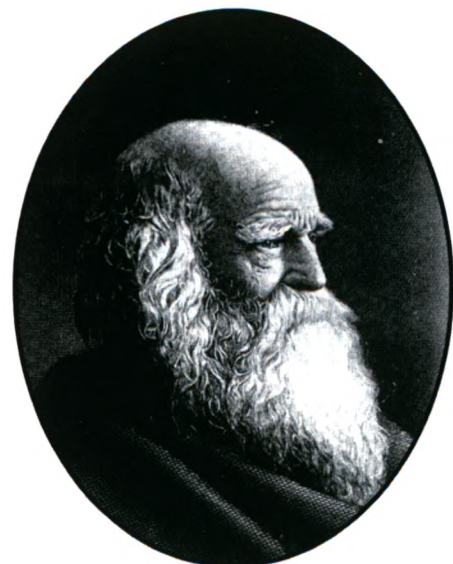
Among the recent accomplishments of faculty, Charles Kelman was awarded the Lasker Prize (sometimes called the American Nobel) for developing the modern cataract surgical extraction procedure. The seed vaccine for influenza and a cardiovascular niche in the field of regenerative medicine were developed through the efforts of its faculty and the help of student co-workers.

Today, New York Medical College provides 3,000 students and residents with an unparalleled variety of learning environments each year. With more than 3,000 faculty mentors and 12,700 living alumni, the school is well positioned for the challenges that lie ahead, as we all begin to write the next 150 years of the school's glorious history.

As a teacher at NYMC, it is a great privilege for me to work with such an outstanding group of students, who are clearly positioned to be the top physicians, healthcare leaders and bioscientists of the coming years. Congratulations to the Class of 2010, and to New York Medical College on its 150th anniversary. I am proud of you, and I rejoice in all of your accomplishments, past and present, and wholeheartedly predict a brilliant future ahead.



N.P. Flower, founder of the Flower hospital and the former governor of New York



William Cullen Bryant, first president of the college.

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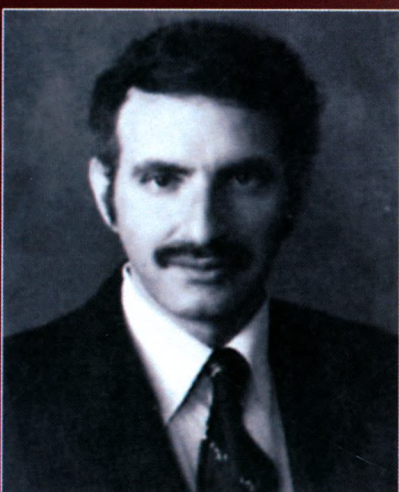
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"We are once again reminded of the importance of family, self-reflection resilience and purpose. We owe him a debt of gratitude for sharing these glimpses behind the scenes of his remarkable journey."

Patrick T. O'Gara, M.D., Professor of Medicine,
Harvard Medical School, Boston, Massachusetts

William H. Frishman, M.D., M.A.C.P.
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