

The Department of Medicine at the Albert Einstein College of Medicine, 1955-1980

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After several years of planning, the new Albert Einstein College of Medicine (AECOM) recruited its first class, of just 56 students, and began their instruction in the fall of 1955. This event took place in a not-yet-fully-outfitted Forchheimer building, which was then the only one of what later became a cluster of AECOM buildings. Across the street was the Bronx Municipal Hospital Center (BMHC, now Jacobi Medical Center, JMC), which was the original (and, for years, only) teaching hospital of the College. The evolution of the Department of Medicine at this new College, from its early stages – with 56 medical students, a small outstanding young faculty, one science building and one teaching hospital – to a world-renowned medical research and educational institution, with over 800 medical and doctoral students, numerous post-doctoral fellows and trainees, a large outstanding faculty, four major science buildings, and six major teaching hospital affiliates, is described.

AECOM's Department of Medicine began its academic existence in July 1955 when Irving London, the first chairman (Figure 1), came to the new medical school from Columbia University's College of Physicians and Surgeons with several other young physician-scientists: Charles Frank from Columbia University, I. Herbert Scheinberg also from Columbia University, as well as Saul Korey from Case Western Reserve University. Ernst Jaffé and Victor Herbert came as research fellows and Milford Fulop came as Chief Resident of the Medical Service at BMHC. David Hamerman came as a junior faculty member in late 1955 and Bracha Ramot and Irwin Arias as research fellows in 1956 (Figure 2). Drs. London, Korey, and Scheinberg were joined in 1957 by the late Howard Eder and subsequently by Quentin Deming (1959). Their visionary planning along with the support and fund-raising of Dean Marcus Kogel (previously New York City's Commissioner of Health) created one of the premier Departments of Medicine in the country at AECOM. Dr. Korey was joined in 1956 by the late Labe Scheinberg, in 1957 by Robert Katzman, and in 1958 by Isabel Rapin, all from Columbia University. What originally began as Medicine's Division of Neurology became a separate academic department within a few years.

The early years were particularly exciting, with talented, vibrant, and mainly young faculty at the new College, and a modern new hospital (Jaffé, 1996; Fulop, 1997). For more than a decade, the Department's clinical activities

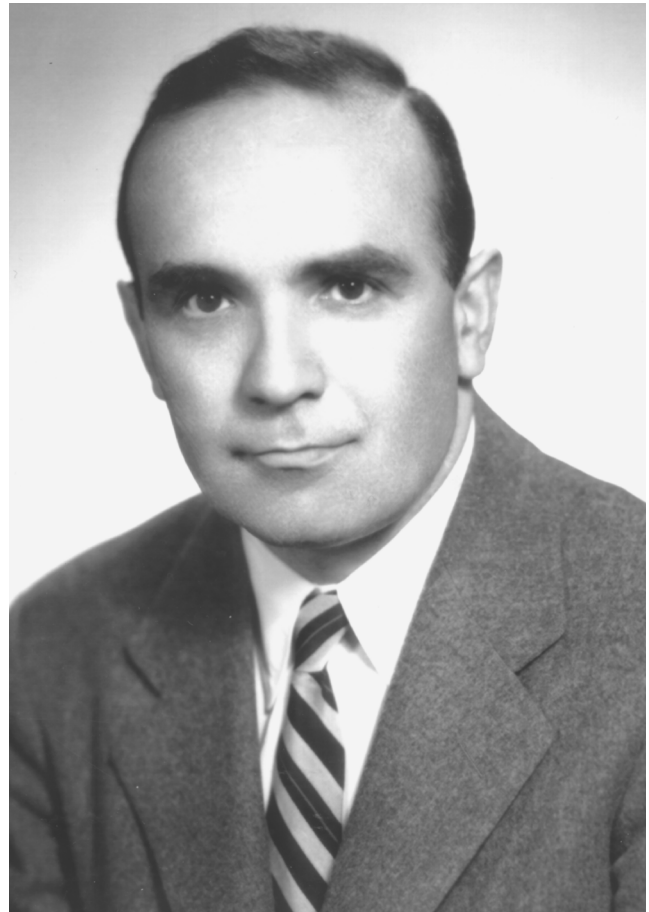


FIGURE 1 | Irving M. London, M.D., the founding Chairman of the Department of Medicine at AECOM, in 1955.

were based at BMHC, which served as the College's university hospital. In the early years, several members of the Montefiore attending staff, notably Harold Rifkin and Abraham Jezer, joined the College's voluntary faculty and made teaching rounds at BMHC (Fulop, 1997). An institutional relationship with Montefiore was formalized in 1963, and strengthened in 1968, at which time the College and Montefiore Hospital agreed to have co-equal academic Departments of Medicine and later in other clinical disciplines.

The College planned to develop another hospital where its faculty could engage in private practice. To that end, the Hospital of the Albert Einstein College of Medicine

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(the "College Hospital," later designated the Jack D. Weiler Hospital of the Albert Einstein College of Medicine) opened in 1966 and, over the next several years, became an important additional site for student and resident teaching. However, in the late 1960s, this hospital experienced financial difficulties, which led AECOM to contract with Montefiore Medical Center to run the Weiler Hospital. Although the Weiler Hospital is still owned by the College, Weiler Hospital functionally became an integral part of Montefiore Medical Center, reflecting the closer relation between the College and Montefiore.

Dr. London successfully chaired and developed the Department for 15 years, and moved to Boston in 1970, to plan, organize, and then run what became the also-very-successful Harvard-MIT (Massachusetts Institute of Technology) Program in Health Sciences and Technology. He was succeeded at AECOM for a few years by Quentin B. Deming (1969-1970) and then John I. Sandson (1970-1972) as Acting Chairmen. John Sandson later became an Associate Dean at AECOM, and then moved to Boston University's School of Medicine as Dean in 1974. In 1968, as part of the institutional affiliation with Montefiore, David Hamerman became the Chairman of the newly

designated separate academic Department of Medicine there, and continued in that role through 1979. Meanwhile, at the AECOM campus, Neal Bricker chaired the Department from 1972-1975, and from 1975-1980 Milford Fulop was the Acting Chairman. In 1976, Dr. Bricker moved to the University of Miami, and is now the Executive Vice President for Research of Naturon Pharmaceuticals in Claremont, California, and a Professor of Biomedical Science at University of California at Riverside.

THE EINSTEIN-MONTEFIORE MERGER

In 1980, the Departments of Medicine at AECOM and Montefiore were merged (the other clinical departments were also merged over the next several years). The chairmen of these combined clinical departments became responsible for the teaching, research, and clinical activities at AECOM, Montefiore, and Jacobi, as well as providing academic oversight of the departments at all of AECOM's other affiliated institutions, including Bronx-Lebanon and North Central Bronx Hospitals. In 1980, Louis Sherwood became the first Chairman of the unified Department of Medicine. He left in 1987 to work at



FIGURE 2 | Department of Medicine house staff, fellows*, and faculty* in June 1956. From left to right, first row: Victor Herbert*, Ernst Jaffé*, Labe Scheinberg*, Charles Frank*, Milford Fulop, Irving London*, I.H. Scheinberg*, David Hamerman*, and Bracha Ramot*. Second row: Mallory Stephens, Joseph Niemann, Constantine Gitsios, Herbert Vaughan, Jack Shapiro, Cecil Broderick, Irmin Sternlieb, Seymour Levitan, Norman Isaacs, Harvey Serating, Harold Adel, Myron Zinn, and Frido Kiefhaber.

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Merck, and until recently was their Senior Vice President of United States Medical and Scientific Affairs. James Scheuer became Acting Chairman in 1987 and Chairman in 1990. In June 1999, he relinquished the arduous administrative responsibilities and returned to teaching and research, and Philip Lief was the Acting Chairman during the rest of 1999. John Hardin became Chairman in January 2000, relinquished the role in 2002 to return to research and teaching, and was succeeded in late 2002 by Victor L. Schuster.

PROGRAMS OF THE DEPARTMENT OF MEDICINE

Over the years, the Department of Medicine has developed major programs in medical student, residency, and specialty fellowship training; clinical care; and research. During Irving London's chairmanship, faculty members with common subspecialty interests held specialty clinics, conferences, and rounds. In the beginning, there were no formal specialty divisions, because Dr. London preferred a more flexible departmental structure. Such divisions were organized later, during the tenure of Dr. Neal Bricker.

UNDERGRADUATE MEDICAL EDUCATION

During the College's early years, members of the Department planned and conducted courses in Diagnostic Methodology for the second year medical students (which included History Taking, Physical Diagnosis, and Clinical Pathology); a clinical clerkship in Medicine for the third year medical students; a 16-week outpatient clerkship in Medicine and Pediatrics for the fourth year medical students (run for the Department of Medicine by Robert Shimm); and, in later years, what was first an elective and then a required substitute internship in Medicine for the fourth year medical students. In the early 1970s, several members of the Department organized a multi-specialty outpatient clerkship for fourth year medical students. However, student and then faculty interest in this activity waned after a few years. At about that time, the College undertook a major curriculum revision which emphasized an organ-systems approach to teaching during preclinical years. With this reformulation, members of the Department became responsible for much of the teaching in cardiovascular, gastrointestinal, pulmonary, and renal physiology; for a new second year course in pathophysiology; and for endocrinology, hematology, and infectious diseases.

In the earliest years, all of the students' clinical teaching took place at Jacobi and Van Etten Hospitals (now renamed the Jacobi Ambulatory Care Pavilion). From the late 1960s to the mid-1970s clerkship teaching was also done at Lincoln Hospital and during the mid-1960s at Bronx-Lebanon Hospital. Beginning in the late 1960s, with the increase in the medical school class size from 96

to 120, and later to 176 students, clinical clerkships were also started at Montefiore Hospital. Currently, students take Medicine clerkships at Jacobi, Weiler, Montefiore, Long Island Jewish, and Beth Israel Hospitals.

RESIDENCY (POST-GRADUATE MEDICAL EDUCATION)

The Department of Medicine at AECOM has also had a major investment in the teaching and training of residents in Internal Medicine. Until the Weiler Hospital opened in 1966, all of the Department's Internal Medicine residency training took place on the general Medical Service at Jacobi Hospital and on the Chest and Metabolic Research Services in Van Etten Hospital. Medical students came from the top schools around the nation to be residents in the Einstein-Jacobi Medicine program and be trained at the new hospital and medical school with its exciting and enthusiastic young faculty. During the 1980s and 1990s, under the aegis of the College, the Department continued to be responsible for AECOM's Internal Medicine program at Jacobi-Weiler and then also for the separate program at Montefiore and North Central Bronx (NCB) Hospitals. In 1998, with the ending of Montefiore's affiliations with NCB and Jacobi Hospitals, these two Medicine residency programs were reorganized again. The East Campus (Jacobi-Weiler) program is now the responsibility of the Department's faculty at Jacobi, and the AECOM chairman is responsible only for the Montefiore-based program. However, Medicine residents from the Montefiore program now rotate to Jacobi and Weiler, instead of to NCB Hospital.

In the 1960s and 1970s, under the direction of Milford Fulop and David Hamerman (until he moved to Montefiore in 1968), and in the 1970s and 1980s ably assisted by Harold Adel and then Saul Moroff, the residency at Jacobi became one of the most highly regarded Internal Medicine training programs in the country. Many Jacobi residents went on to successful careers in teaching, practice, research, and medical administration, and many became directors of services and divisions at teaching and community hospitals (Table 1).

FELLOWSHIPS (SUBSPECIALTY TRAINING)

Fellowships were established in the traditional medical subspecialties early, and several division heads obtained National Institutes of Health (NIH) Training Grant support to establish programs to train bench investigators. Among the most successful were those in Gastroenterology, Hematology, Infectious Diseases, and Nephrology.

The fellowship program in Gastroenterology and Liver Diseases, originally under the directorship of Irwin Arias (who had been one of the early fellows in Dr. London's laboratory), assisted by Irmin Sternlieb (a former Jacobi

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TABLE 1 | THE GRADUATES OF THE EINSTEIN-JACOBI RESIDENCY PROGRAM: Graduates went on to successful careers in practice, research, and teaching. The following is a partial list of the graduates who also have had major administrative roles at AECOM and other medical schools.

DEANS		
John Sandson	(1956)	Former Dean at Boston University (deceased)
Paul J. Friedman	(1959)	Former Dean for Academic Affairs, University of California at San Diego
Paul Royce	(1959)	Former Dean at the University of Minnesota at Duluth
Aaron Lazare	(1961)	Former Chairman of Psychiatry, then Dean and now Chancellor at the University of Massachusetts
Walter Henry	(1969)	Former Dean, University of California at Irvine
Arnold Aberman	(1969)	Former Dean at the University of Toronto and former Chairman of their Department of Medicine
CHAIRS		
Normal Ertel	(1957)	Medical Service of the Veterans Administration New Jersey Health System (East Orange and Lyons Veterans Administration Medical Centers)
Sheldon Wolff	(1959)	Former Chairman of Medicine at Tufts (deceased)
Ora Rosen	(1960)	Former Chairman of Molecular Pharmacology at the Albert Einstein College of Medicine (deceased)
Eric Pfeiffer	(1960)	Department of Psychiatry, University of South Florida
Stanley Cohen	(1961)	Former Chairman of Pathology at Hahnemann University and now Chairman at the University of Medicine and Dentistry of New Jersey at Newark
Michael Alderman	(1962)	Former Chairman of Epidemiology and Social Medicine, Albert Einstein College of Medicine
Paul (Pepper) Davis	(1963)	Former Chairman of the Department of Medicine, Albany Medical College
Sheldon Jacobson	(1964)	Emergency Medicine, Mount Sinai School of Medicine
Robert Goldstein	(1965)	Medicine at the Uniformed Services University for Health Sciences
Ned Cassem	(1967)	Psychiatry at Massachusetts General Hospital
Robert Lisak	(1968)	Neurology at Wayne State University School of Medicine
Michael Droller	(1968)	Urology at Mount Sinai School of Medicine
David Richman	(1969)	Neurology at University of California at Davis
William Frishman	(1971)	Medicine at New York Medical College
E. John Gallagher	(1972)	Emergency Medicine at the Albert Einstein College of Medicine
Daniel Hier	(1973)	Neurology at University of Illinois
Neil Nusbaum	(1980)	Medicine at University of Illinois at Rockford
DIVISION HEADS		
Leslie Bernstein	(1958)	Former head of Gastroenterology at the Albert Einstein College of Medicine
Mary Jane Jesse	(1959)	Former head of Pediatric Cardiology at University of Miami and then President of the American Heart Association (deceased)
Morris Reichlin	(1959)	Former head of Arthritis and Immunology at the University of Oklahoma
Neil Kaplowitz	(1959)	Gastrointestinal-Liver Diseases at the University of Southern California
Simon Karparkin	(1960)	Hematology at New York University
Norman Fleischer	(1960)	Endocrinology at the Albert Einstein College of Medicine
Peter Barland	(1961)	Former head of Rheumatology at Montefiore Hospital
Barry Brenner	(1962)	Nephrology at Brigham and Women's Hospital
William McCormack	(1963)	Infectious Diseases at State University of New York at Brooklyn
Elias Kazam	(1966)	Ultrasound and Computed Body Tomography at Cornell
Gerald Pohost	(1967)	Cardiovascular Diseases at the University of Alabama at Birmingham
David Rosenstreich	(1967)	Allergy and Immunology at the Albert Einstein College of Medicine
Geoffrey Herzig	(1967)	Former head of Bone Marrow Transplantation and Hematologic Oncology at State University of New York at Buffalo
Thomas Berl	(1968)	Renal Diseases and Hypertension at University of Colorado
Neil Benowitz	(1969)	Clinical Pharmacology and Experimental Therapeutics at University of California at San Francisco
Mark Donowitz	(1970)	Former head of Gastroenterology at Johns Hopkins University
George Kaysen	(1972)	Nephrology at University of California at Davis
Stephen Udem	(1972)	Former head of Infectious Diseases at University of Medicine and Dentistry of New Jersey at Newark
Marc Blackman	(1972)	Clinical Director and Chief of the Laboratory for Clinical Investigation at the National Center for Complementary and Alternative Medicine
Alan Fein	(1973)	Pulmonary and Critical Care Medicine at North Shore - Long Island Jewish Medical Center
Peter Rotwein	(1975)	Molecular Medicine, Oregon Health Sciences University
Marc Ernstoff	(1978)	Hematology and Oncology at Dartmouth, Hitchcock Medical Center
Gerald Ridge	(1979)	Medicine at the Allen Pavilion of Columbia Presbyterian Medical Center

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resident and then fellow in I. Herbert Scheinberg's laboratory), attracted outstanding research fellows, some of whom went on to distinguished research careers and positions of leadership. After Dr. Arias moved to Tufts University in 1984 to chair their Department of Physiology, Allan Wolkoff became the director of the research component of the Gastrointestinal-Liver Diseases Fellowship (Allan Wolkoff is himself a graduate of AECOM and of the Jacobi residency program). The program in Hematology, directed first by Helen Ranney (who later became the first woman Chair of Medicine in this country, at University of California at San Diego), then by Ernst Jaffé, and in recent years by Ronald Nagel, also trained a succession of productive fellows, many of whom were taught clinical and morphologic hematology by Christine Lawrence at Jacobi. The tradition of research-intensive fellowships was continued by the training program in Infectious Diseases, directed first by Bernard Fields (who later moved to Harvard University), then by Neal Steigbigel at Montefiore, and now by Arturo Casadevall. The program in Nephrology was directed first by Neal Bricker, followed by Quentin Deming, Richard Hays, Detlef Schlondorff, and Victor Schuster.

FACULTY RESEARCH

Einstein's Department of Medicine has a distinguished research record with many notable accomplishments during its first quarter-century. In Atherosclerosis and Lipid Metabolism, Howard Eder and his collaborators, Paul Roheim and Lewis Gidez, made salient contributions to our understanding of lipid metabolism, hyperlipidemic disorders, and the interplay of dietary, genetic, and other factors in those disorders. In Cardiology, the studies of Drs. LeJemtel and Sonnenblick and their collaborators provided important insights into understanding the pathophysiology of chronic congestive failure and its treatment.

In Endocrinology, Ora Rosen's research elucidated aspects of glucose metabolism and the role of protein kinases. She and Norman Fleischer developed one of the country's first NIH-funded Diabetes Research and Training Centers, whose members have continued to produce a stream of research on the role of insulin, protein kinases, and glucose metabolism. One of Dr. Fleischer's early faculty recruits was Harry Shamoon, a former resident at Jacobi, who was the Einstein Principal Investigator of the National Diabetes Control and Complications Trial (DCCT), which established that "tight control" of glycemia mitigated the development of microvascular and neuropathic complications in Type 1 Diabetes.

In Gastroenterology, Irwin Arias, after his original delineation of the biochemical defect in Gilbert's disease, went on to elucidate the pathophysiology of several other types of hereditary jaundice, including Dubin-

Johnson and Rotor syndromes. That work was later extended by Jayanta and Namita Roy-Chowdhury, who further elucidated the enzyme reactions responsible for the glucuronidation of bilirubin, and then turned their attention to the possible correction of those and other hereditary metabolic abnormalities of hepatic function by transplantation. David Shafritz, the Director of AECOM's Liver Research Center, performed seminal studies of hepatic protein synthesis and of viral hepatitis and hepatoma. Kiron Das, who went on to direct the Gastrointestinal Division at the Robert Wood Johnson School of Medicine in New Jersey, defined some of the immunologic abnormalities in patients with inflammatory bowel disorders. In recent years, Douglas Simon, working mainly at Jacobi, has studied enteric disorders in patients with Acquired Immune Deficiency Syndrome (AIDS) and has undertaken trials to attempt to treat the diarrheal disorders.

In the area of Human Genetics, I. Herbert Scheinberg and Irmin Sternlieb conducted studies of copper metabolism and Wilson's Disease, while also providing patients afflicted with this previously uniformly fatal disease the remarkable benefits of therapy with penicillamine and other decopperizing agents. Working in their laboratory, Anatol Morell crystallized human ceruloplasmin and provided the earliest insights into how sialated glycoproteins were protected from catabolism, and how desialation fostered the metabolic degradation of serum glycoproteins.

In Hematology, Irving London's laboratory, including Ernst Jaffé and Bert Lowy, assisted by Grace Vanderhoff, Gertie Neumann, and Halina Morell, conducted studies on the biosynthesis of hemoglobin and the metabolism of erythrocytes. One of the other early fellows in the London laboratory was Bracha Ramot, a visitor from Israel, who went on to become the "doyenne of Israeli hematology." Tim Hunt, a post-doctoral fellow in that laboratory in the late 1960s, went on to share a Nobel Prize in 2001 for his studies of the cell cycle. Helen Ranney developed a major laboratory and clinical center to study hereditary disorders of hemoglobin, especially sickle cell disease, and trained a series of research fellows including Robert Bookchin and Ronald Nagel. Dr. Bookchin, with Paul Gallop (of Biochemistry, who later moved to Harvard), reported one of the earliest studies of hemoglobin A1c, and Drs. Ranney and Blumenfeld (also of Biochemistry) then described its abnormalities in patients with diabetes. Dr. Bookchin and Dr. Nagel have made major contributions to our understanding of the pathologic physiology of hemoglobinopathies and their treatment. Dr. Nagel now directs the Hematology Division, an NIH-funded Sickle Cell Disease Center, and also a research program aiming at gene therapy of hemoglobinopathies, the last fittingly in collaboration with Dr. London's laboratory, which is now at MIT. Philip Aisen, an AECOM fellow from 1957 to 1958 in Herb Scheinberg's laboratory, has conducted long-term studies

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of the biophysics of iron metabolism and transferrin.

In Nephrology, Richard Hays devoted his research efforts to clarifying our understanding of the mechanism of action of vasopressin on water transport and established the presence of water channels in the cell membrane. Detlef Schlondorff, now Professor of Medicine at the University of Munich, studied the role of prostaglandins and vasoregulatory hormones on renal glomerular function.

In Pulmonary Diseases, M. Henry Williams, who was one of the College's earliest faculty members, as a Visiting Assistant Professor of Physiology, was persuaded by Dr. London in 1959 to come here full time to run the Chest Service at Van Etten Hospital. He and Chang Shim conducted studies of the pathophysiology and treatment of various chronic pulmonary disorders, notably bronchial asthma. Also at Van Etten, Isidore Bobrowitz performed some of the early studies using ethambutol to treat pulmonary tuberculosis.

In Rheumatology, David Hamerman, who subsequently became the Chairman of the Department of Medicine at Montefiore, and later formed and directed the Department's Division of Geriatrics, conducted studies of the metabolism of hyaluronate, and John Sandson undertook immunologic studies in patients with various

connective tissue diseases, especially systemic lupus erythematosus.

LOOKING TO THE PRESENT

Between 1975 and 1979, discussions took place between leaders at AECOM and Montefiore with the intent to develop a closer relation. These negotiations resulted in amalgamations of the clinical academic departments under single chairmen and the establishment of affiliations with Beth Israel and Long Island Jewish Medical Centers, while continuing those with Jacobi, Montefiore, and Bronx-Lebanon.

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