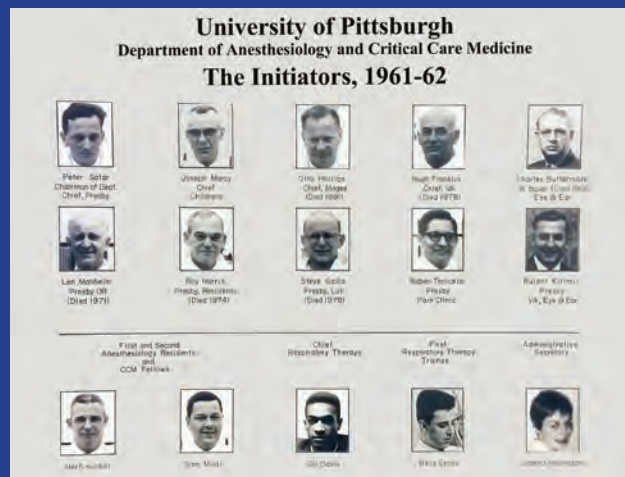


History of the Department of Anesthesiology at the University of Pittsburgh and UPMC

Christine M. Heiner, BA, Scientific Writer, Department of Anesthesiology/Department of Surgery
Andrew Herlich, DMD, MD, FAAP, Professor and Special Assistant to the Chair for Academic and Faculty Affairs, Department of Anesthesiology
Jan D. Smith MBChB, FRCP (Lon) DTM&H, FACP, Clinical Professor and Clinician Emeritus, Department of Anesthesiology
Howard B. Gutstein, MD, Peter and Eva Safar Professor and Chair, Department of Anesthesiology

The University of Pittsburgh School of Medicine and UPMC have always been at the forefront of groundbreaking advances in the field of anesthesiology. Many world-renowned clinicians and researchers from Pittsburgh have made their mark in the specialty as well as the broad field of medicine. Their contributions have enabled us to flourish into one of the best anesthesiology departments in the nation.



1930s: Mercy Hospital Establishes an Anesthesiology Department

Mercy was Pittsburgh's largest surgical hospital in the late 1800s and early 1900s; many training surgeons considered it the city's best. Advances in the practice prompted Mercy to establish a formal anesthesiology department in the 1930s. Mercy became affiliated with the Pitt School of Medicine (at that time known as Western Pennsylvania Medical College) in 1901. Until 1937, practically all instruction in clinical surgery and anesthesiology at the college was carried out at Mercy under the direction of Dr. John Jenkins Buchanan, one of the fathers of modern surgery in Pittsburgh. Early Mercy anesthesiologists tested and studied new drugs, devices, and techniques before they became common practice in the medical profession. The carbon dioxide absorption technique, which paved the way for cyclopropane, is cited as the biggest advancement at Mercy during this era. The Mercy anesthesiology department also implemented the use of bedside oxygen tents.

1940s: Dr. Leonard Monheim and Dental Anesthesiology at Pitt

Leonard M. Monheim, DDS, an internationally known dentist, author, lecturer, scholar, educator, and research clinician, graduated from Pitt's School of Dental Medicine in 1933 and trained under physician anesthetists Drs. Frances Foldes and George Thomas, both who would later become integral figures in our department's history. In 1938, Dr. Monheim joined the staff at Presbyterian Hospital as its only on-site, full time anesthesiologist. He was actually the only trained anesthesiologist at Presby for many years.

From 1942 to 1946, Dr. Monheim served in the US Army and was stationed in the Philippines, where he taught intravenous deep sedation techniques called chemamnesia to Army Corpsmen. He founded the Pitt dental school's Department of Anesthesiology in 1949, the first in any dental school in the US, and developed a general anesthesiology residency there for dentists.

Dr. Monheim's major academic mission had been upgrading dental anesthesia by stressing the medical evaluation of patients and training dentists to perform resuscitation and prevent emergencies. At Presby, he became the backbone of the coordination of OR anesthesia services. These experiences and his work with nurse anesthetists and oral surgery and dental residents contributed to his reputation as a superb teacher and supervisor of anesthesia personnel. His long association with the Pitt medical school and its affiliated hospitals culminated in his service as President of the Medical Staff at Presbyterian Hospital.

1950s: Dr. Joseph Marcy at Children's Hospital of Pittsburgh

Anesthesiology department was established at Children's Hospital of Pittsburgh in 1955 and Joseph H. Marcy, MD, who trained at the University of Pennsylvania, became its first chief of pediatric anesthesiology and the first physician anesthesiologist affiliated with Pitt. Anesthesiology was still a young clinical discipline at that time, and the specialty of pediatric anesthesiology advanced significantly under Dr. Marcy's direction. His establishment of routine tracheal intubation, monitoring of vital signs, and fluid administration are all credited with greatly reducing pediatric deaths during surgeries. As a direct result of these innovations, healthy infants today very rarely die as a result of anesthesia.

Dr. Marcy retired from Children's in 1984. In 1992, he received the American Academy of Pediatrics Robert M. Smith Award in recognition of his important contributions to the fields of pediatric anesthesiology and pain management, joining a legacy of only 16 individuals at that time to receive the honor. In 2013, the Pitt Department of Anesthesiology established an Endowed Chair in Pediatric Anesthesiology named in recognition of Dr. Marcy, a position held by our current Chief Anesthesiologist at Children's, Dr. Peter Davis.



Dr. Foldes (L) with Dr. Siker

1950s-1960s: Drs. Frances Foldes and Ephraim Siker at Mercy Hospital

In 1947, Francis F. Foldes, MD was recruited from Massachusetts General Hospital to further develop the anesthesiology department at Mercy. He established a residency program, a research laboratory, and the first myasthenia gravis clinic in this part of the United States. Under his leadership, the hospital pioneered clinical pharmacology. The first time naloxone, the principal narcotic antagonist, was administered to a human being was at Mercy Hospital. He introduced and popularized succinylcholine, one of the standard muscle relaxants used in anesthesia practice today, in North America.

His research, including groundbreaking work on muscle relaxants, had a huge impact on the practice of anesthesiology and surgery. Dr. Foldes was awarded many honors, including the Distinguished Service Award and the Award for Excellence from the American Society of Anesthesiologists (ASA). He was the first American to serve as President of the World Federation of Societies of Anesthesiologists and as Chairman of the Medical Advisory Board of the Myasthenia Gravis Foundation.

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In 1960, Ephraim S. Siker, MD succeeded Dr. Foldes as Chair at Mercy. Dr. Siker is credited with using one of the first halothane anesthetics in the US. He also invented a mirror blade laryngoscope that is still used today. This laryngoscope has a copper jacket that conducts heat away from the mirror, minimizing fogging by the patient's breath and helping to prevent injury in cases of difficult intubation. Dr. Siker served as President of the Pennsylvania Society of Anesthesiologists and the ASA and Director of the American Board of Anesthesiology. In 1972, he was chosen by then President Nixon to lead a medical team during his visit to China. He received the ASA's Distinguished Service Award, trained several future academic chairs of anesthesiology departments, and served as Executive Director of the Anesthesia Patient Safety Foundation. We established the "E.S. and Eileen Siker Chair of Anesthesiology" in 2012 in recognition of his contributions and influence.



Dr. Safar

1961-1978: Dr. Peter Safar

The arrival of Dr. Peter Safar, then only 36 years old, from Baltimore City Hospital in 1961 initiated the most significant revolution in the history of our department.

Prior to Dr. Safar's arrival, anesthesiology was not yet an official department at the University. It was loosely directed by the leading anesthesiologists at Pitt's affiliated hospitals: Drs. Foldes at Mercy, Marcy at Children's, Robert Patterson at Allegheny General Hospital (AGH), and George Thomas. Dr. Thomas was part-time clinical chairman of the Anesthesia Division within the Department of Surgery and the titular Professor and Chairman of Anesthesiology at Pitt; he was also the Chief of Anesthesiology at St. Francis, Presbyterian, and Eye and Ear hospitals, as well as a consultant to Magee-Womens Hospital. He visited the University hospitals occasionally and was about to retire. All of these anesthesiologists held clinical teaching appointments at Pitt, but none worked at the University or its hospitals. The "University" hospitals (Presbyterian, Eye and Ear, Children's, Magee-Womens, VA, and Montefiore hospitals) had separate goals, administrations, loyalties, and staff. Anesthesia at the hospitals was administered by nurse anesthetists and dental anesthesia graduate students under the supervision of essentially three anesthesiologists: Dr. Marcy at Children's, Dr. Monheim at Presbyterian, and Dr. Walter Bauer at Eye and Ear Hospital. Anesthesiology residency programs existed only at Mercy and AGH.

Dr. Peter Safar established Pitt's first Department of Anesthesiology and Critical Care Medicine and became its Inaugural Chair, uniting all these affiliated leaders and programs to form the largest department of its kind in the country. He also

brought with him several colleagues who were instrumental in helping to bolster the new academic department. He appointed Dr. Leroy Harris our very first Anesthesiology Residency Program coordinator in 1961-1962. Drs. Warren Holtey and Ruben Tenicela (both who came with Dr. Safar from Baltimore), Herb Kunkel, S. Lowery, Sam Milai, and Oscar Kantt became our first six residents. The Anesthesiology Residency Training Program was approved by the AMA in 1962-63 under Dr. Safar's leadership. Dr. Safar also brought with him Dr. Steve Galla and appointed him our first Director of Anesthesiology Research.

Impressed by the need for competent technical help for prolonged artificial ventilation during the polio epidemics in Baltimore, Dr. Safar recruited Mr. Gilbert Davis, a respiratory therapist from Chicago, who set up practical training for nurses and future therapists, recruited mainly from among the orderlies. He equipped Presbyterian's respiratory therapy services from scratch. A one-year Presbyterian-based respiratory therapy clinical training program, plus an optional year of internship, became the first respiratory therapy school in Pennsylvania and one of the first six AMA-approved schools in the nation. The first trainee from this program was Mr. Bela Eross.

Dr. Safar established one of the first multidisciplinary ICUs in the US and initiated an internationally-recognized ICU fellowship program. Leaders in its development included Dr. Clara Jean Ersoz, Dr. Ake Grenvik (recruited from Sweden), and Dr. Stephen Kampschulte, who established the first pediatric ICU in Pittsburgh. Later, Dr. Safar and his colleagues Drs. Max H. Weil and William Shoemaker from Los Angeles were instrumental in founding the multidisciplinary Society of Critical Care Medicine. As a founding member of the Club of Mainz, Dr. Safar and his colleagues from Germany and other nations helped found the World Association for Disaster and Emergency Medicine.

Regarded as the "father of CPR," Dr. Safar pioneered research on mouth-to-mouth resuscitation. His close friendship with Asmund Laerdal led to the development of the "Resusci-Anne" mannequin, which became widely used as a CPR training tool. In 1968 Dr. Safar co-authored the first widely-accepted CPR instruction manual.

As a founding member of the American Heart Association's CPR Committee and the National Research Council's Committee on Emergency Medical Services, Dr. Safar played an important role in the organization of emergency units and in establishing national guidelines to set up such agencies. During his tenure, nationwide emergency medical service standards were in dire need of reform. Inadequately equipped ambulances were run independently by volunteer fire-

fighters, funeral directors, and employees of private companies who were not medically trained. Many patients died *en route* to the hospital. In 1967, Peter Safar collaborated with Phil Hallen, president of the Maurice Falk Medical Fund, James McCoy Jr., founder of the Hill District's Freedom House Enterprise Corporation, and Morton Coleman, an aide to the Pittsburgh mayor and part-time social work professor at the University of Pittsburgh, to start the Freedom House Ambulance Service in Pittsburgh's Hill District. Uneducated, unemployed African American men were recruited and formally trained by Gerald Esposito, Donald Benson MD, and later Nancy Caroline, MD to staff the ambulances. The project tested Dr. Safar's ideas for pre-hospital emergency care, provided better job opportunities to unemployed African Americans, and improved services



Dr. Safar



**Department of Anesthesiology staff
on the roof of Scaife Hall in 1971**

First Row: Kyocki Chinen MD (Resident); Donald Mills MD (Resident); Boonrak Tantitra MD (Resident); Robert Binda MD (Resident); Daniel Wooten, MD (Resident); Howard Cartner MD (Intern); Raymond Whitney MD (Resident)

Back Row: Chul Wo Lee MD (Resident); Paul Berkebile MD (Resident); Eduard Figallo MD (MWH); Raymond McKenzie MD (MWH); Monita Lim MD (Resident); Edgardo Arcinue MD (Resident); Peter Safar MD (Professor and Chairman) (PUH); Marie Louise Kampschulte MD (Resident); Stephan Kampschulte MD (CHP); Charles Buttermore DDS (EEH); Brian Smith MD (PUH); Stanislav Pauter MD (PUH); Leonard Monheim DDS (PUH); Ezzat Abouleish MD (MWH); Bulent Kirimli MD (VAH)

in a minority neighborhood. The Freedom House crew were the nation's first paramedics. Hallen, Safar, McCoy, and Coleman's experiment conceived a whole new profession - the EMT. Freedom House helped set national standards for ambulance design and equipment and for training emergency medical technicians and paramedics.

After stepping down as Chair to focus on research in 1976, Dr. Safar founded the International Resuscitation Research Center, which investigated secondary injuries that occur after traumatic brain injury, cardiopulmonary arrest, and severe hemorrhage. The institute was renamed in his honor as the Safar Center for Resuscitation Research in 1994.

Dr. Safar was nominated three times for the Nobel Prize in medicine in 1990, 1992, and 1994. He was a member of Physicians for Social Responsibility and the International Physicians for Prevention of Nuclear War, as well as an advisor for Army and Navy casualty

DEPARTMENT HISTORY

care research programs. In 1999, he was awarded the “Cross of Honor,” Austria’s highest civilian honor, for his service in the field of medicine. Our endowed Chair position is named in honor of Dr. Safar and his wife Eva.

Also notable during the Safar era in the early 1970s is that Mr. Jerome Cochran served as department administrator. Mr. Cochran would go on to become Executive Vice Chancellor of the University of Pittsburgh.

CRNA Program

CRNA training programs had been long established at St. Francis and Mercy hospitals; however, the foundations of Pitt’s Nurse Anesthesia Program can be traced to the individual hospital nurse anesthesia training programs in the late 1950s at Presbyterian and Montefiore Hospitals. These two hospital programs merged in 1972 to form the University Health Center of Pittsburgh School of Anesthesia for Nurses. Under the direction of Mary DePaolis-Lutzo and Dr. Stephen Finestone, the program gained national recognition as one of the finest certificate nurse anesthesia programs. In 1989, the Health Center program joined the University of Pittsburgh School of Nursing and graduated the first class of MSN-prepared nurse anesthetists in 1991. The program continues to use the diversity of clinical sites established by the certificate program joined with the strength of the academic curriculum in advanced practice nursing to strive to educate the highest quality nurse anesthesia practitioners. Pitt’s Nurse Anesthesia Program has since grown into one of U.S. News & World Report’s top ranking graduate programs.

1968-1976: Dr. Robert Hingson

Robert A. Hingson, MD was a renowned humanitarian and innovator both inside and outside the field of anesthesiology. Before coming to Pitt, he was known for his role in introducing peridural analgesia during labor and delivery and developing continuous caudal anesthesiology. He worked at Philadelphia Lying-In Hospital and the University of Tennessee School of Medicine, where he established their first department of anesthesiology and reversed the trend of newborn deaths. Dr. Hingson was the first Professor of Anesthesiology at Western Reserve University School of Medicine and Director of Anesthesia at the University Hospital of Cleveland. There, he developed a portable anesthesia machine, nicknamed the Western Reserve Midget, that provided instantaneous anesthesia for dentistry, obstetrics, and surgery. His machine was also adapted as a ventilator for resuscitation by firemen, military personnel, and rescue workers.

Dr. Hingson is most famous for inventing the jet injector for mass immunization, which enabled more efficient mass inoculation without the need for needles and syringes. This was an important feature, as it did not frighten children undergoing vaccination nearly as much as needles. Dr. Hingson’s high-velocity, microjet, injectable apparatus underwent extensive experimentation in anesthetic administration and later for vaccination and was first used clinically with local anesthetics, ephedrine, insulin, and penicillin. Production-line immunization began in 1956 when the Hingson team inoculated children with the Salk vaccine in Cleveland, Ohio. Eventually more than 300,000 patients were immunized via jet injection, primarily against polio and influenza.

In 1958, Dr. Hingson and his team inoculated some 90,000 people throughout Asia and Africa against typhoid, cholera, and polio. These large-scale medical missions led him to establish the Brother’s Brother Foundation (BBF), which he led from 1958-1982. Dr. Hingson was Chief Anesthesiologist at Magee-Womens Hospital from 1968 to 1973 and left academic anesthesiology in 1973 to devote his full time to BBF. Still based in Pittsburgh, BBF has provided over \$4 billion of medical supplies, pharmaceuticals, textbooks, food, seeds, and other humanitarian supplies to people around the world in 149 countries since 1958. The agency is now directed by Dr. Hingson’s son, Luke.

Dr. Hingson was a Professor of Public Health at Pitt from 1973-1982 when he retired. Over the course of his career, he authored or co-authored over 150 scientific publications and was nominated for a Nobel Peace Prize.

1979-1996: Dr. Peter Winter

Dr. Safar stepped down as Chair in 1978 and Drs. R. Brian Smith and later D. Ryan Cook served as interim chairs until 1979, when Peter M. Winter, MD became the second Chair of the Department of Anesthesiology and Critical Care Medicine, leading another revitalization. Throughout his influential career, Dr. Winter devoted himself to the recruitment and development of future researchers and clinicians, promoting excellence in patient care and the development of anesthesiology subspecialties (especially the field of transplantation anesthesiology), teaching, and innovation and helping to



Dr. Safar with Dr. Winter

make Pitt one of the nation's top research and academic institutions.

During his tenure as chair, anesthesia-related deaths decreased to almost zero. Many seriously ill patients who might previously have been lost or permanently disabled were revived through the use of pioneering life-support methods that Dr. Winter promoted. His leadership played a crucial role in many of the University's notable accomplishments in transplant, neurological, and cardiac surgery. By emphasizing the multidisciplinary cooperation required for those breakthroughs, Dr. Winter called attention to the crucial roles of the anesthesiologist and intensivist.

Dr. Etsuro Motoyama, a distinguished pediatric anesthesiologist, pulmonary physiologist, and NIH-funded investigator, was recruited from Yale to become our first Vice-Chairman for Research. He was later joined by Dr. Leonard Firestone from Massachusetts General Hospital and Dr. Yan Xu from the University of California at San Francisco. An accomplished researcher who has made significant contributions to the field of anesthesia mechanisms, Dr. Xu developed into a dedicated educator and mentor with a high priority to advance the careers of the next generation of academic anesthesiologists and eventually became our Vice Chair for Basic Research. Dr. Winter allowed the creation of tenured and tenure-track faculty positions for

PhD investigators in the department, allowing recruitment of the most talented PhD scientists to both join the research program and hold secondary appointments in basic science departments in the medical school. The program has since expanded to include multiple NIH-funded investigators who use advanced molecular biology, structural biology, computational biology, and molecular genetic techniques to study the molecular and cellular mechanisms of general anesthesia.

Under Dr. Winter's leadership, we became one of the first anesthesiology departments to invest in training with human simulation, acquiring a full-sized computerized simulator and establishing a simulation center. Drs. Rene Gonzeles and John J. Schaefer III brought the first human simulators to UPMC. In 2001, the facility was named The Peter M. Winter Institute for Simulation, Education, and Research, or "WISER," in honor of Dr. Winter. WISER has since grown into a health system-wide training center, utilizing simulation-based education to provide a safer environment for patients of UPMC and its affiliates.

During Dr. Winter's tenure, the "University hospitals" began evolving into what is known today as UPMC. In 1986, they were consolidated under the management of the University of Pittsburgh Medical and Health Care Division, renamed "University of Pittsburgh Medical Center" or UPMC in 1990. Southside Hospital became part of UPMC in 1996; Passavant, Shadyside, and St. Margaret hospitals joined UPMC in 1997, and Children's became part of UPMC in 2001. The growth of UPMC throughout this era caused subsequent expansion in the department, as it began to provide services and extend its influence to new clinical sites.

It was also during Dr. Winter's tenure that we lost a valued alumnus. Charles W. Schertz, MD was a resident and later a faculty member. He served as an attending anesthesiologist and a member of the cardiac anesthesiology division at Presbyterian Hospital, where he was recognized as an outstanding clinician, teacher, and investigator. In 1990, Dr. Schertz tragically died in an avalanche while climbing the world's seventh-highest mountain on the Nepal-Tibet border. Dr. Winter and the department established a research fellowship to honor Dr. Schertz's memory in 1990.

Sadly, Dr. Winter passed away just this past year on May 14, 2016 at the age of 81.

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1996-2001: Leonard L. Firestone, MD

Dr. Winter stepped down as Chair in 1996 and Leonard L. Firestone, MD took the helm until 2001 and led the department through significant development and expansion. In 1996, we took over services at UPMC Beaver Valley (formerly Aliquippa Hospital), marking the first departmental extension outside the Pittsburgh metro area and Allegheny County. Dr. Jan Smith served as Chief of Anesthesiology and Medical Director there and was assisted by Drs. Carol Rose, David Wilks and Robert Krohner. We also started a cardiac anesthesiology program at UPMC Lee Regional, led by D. Van Riper, MD, to facilitate the initiation of an open-heart surgery program in Johnstown, PA in 1988. In 1999, we ventured into international territory with the start of anesthesiology services at IsMeTT in Palermo, Italy.

Dr. Firestone catalyzed notable growth in basic science research. He conducted innovative research on anesthetic mechanisms and recruited outstanding scientists. By the end of his tenure in 2001, we ranked first in the United States among anesthesiology departments in terms of funding received from the NIH.



Drs. Jan Smith, Len Firestone, Don Benson, Peter Safar, John Williams, and Bulent Kiriqli in 2001

2001-2013: John P. Williams, MD

John P. Williams, MD successfully guided the department through a period of unprecedented growth as UPMC and its health plan blossomed into an integrated delivery and financial system. In 2002, the Department of Critical Care Medicine (CCM) and the Department of Anesthesiology split to become two separate departments. Dr. Williams assisted in developing the new CCM department at Pitt, which was also the first CCM department in the country, led by inaugural Chair Mitchell P. Fink, MD.

Dr. Williams continued to develop and broaden our research efforts. Under his leadership, the research program grew to include the molecular mechanisms and genetics of pain. Our long-standing ranking as one of the top anesthesiology departments in the nation in NIH-funded grants continued. Dr. Williams also established the Pittsburgh Center for Pain Research, further solidifying our ranking as one of the top academic anesthesiology departments in the nation.

Educational programs greatly expanded under the direction of Rita M. Patel, MD, who first came to Magee-Womens Hospital in 1984 to pursue an Obstetrical Anesthesiology Fellowship. Since then, she has served the department, Pitt's medical school, and UPMC as a renowned anesthesiologist and educator. Dr. Patel became Director of the Anesthesiology Residency Program and built the program from the ground up into what many consider one of the top five residencies in the country. During this time, she was a finalist for the ACGME Parker J. Palmer Courage to Teach Award, given to the top 2% of program directors in the country. Dr. Patel would go on to progressively advance into educational leadership positions at the University, hospital, and national levels. She went on to become not only Vice Chair of Education in our department, but also Assistant and then Associate Dean for Graduate Medical Education for the University of Pittsburgh School of Medicine, the Accreditation Council for Graduate Medical Education (ACGME) Designated Institutional Official (DIO) for UPMC, as well as UPMC's National Residency Matching Program DIO. Through these roles, she came to oversee 170 programs and 1,700+ residents in the UPMC system and mentor a cadre of outstanding clinician educators.

Mark E. Hudson, MD, MBA, who first joined our department as a member of Presby's cardiac anesthesiology team in 1993, developed into an expert in innovative operational management and healthcare economics during this era. After serving as Director of Quality Assurance, Chief Anesthesiologist, and then Chair at UPMC Shadyside, he joined the department's executive administrative team as Vice-Chair for Clinical Operations, overseeing all anesthetic sites and divisions throughout the health care system. Later, Dr. Hudson advanced into progressively larger management roles, first as Executive Vice Chair of the department and then Executive Director for Anesthesia Services for UPMC. Over the years, his leadership has resulted in a markedly more uniform department structure across all sites, improved clinical productivity per FTE, and a decrease in required system investment.

Our clinical sites further increased during this time. Mercy Hospital, although long affiliated with Pitt, did not officially become part of UPMC until 2008, and we officially began providing anesthesia services there in 2009. We also integrated UPMC Bedford, East, McKeesport, Northwest, and Passavant into our group during the Williams era. Our international arm was bolstered as anesthesiology services extended to UPMC Beacon Hospital in Dublin, Ireland, where Dr. Jan Smith later served as Associate Medical Director.

2015-Present: Howard B. Gutstein, MD



Dr. Howard Gutstein

Dr. Marshall Webster served as Interim Chair from 2013 until September of 2015 when Howard B. Gutstein, MD was formally appointed as our new Chair. Dr. Gutstein was previously a Professor in the Department of Anesthesiology and Pain Management at the University of Texas-MD Anderson Cancer Center, with a secondary appointment in the Department of Biochemistry and Molecular Biology. He is a very accomplished researcher, primarily investigating the molecular mechanisms underlying the development of opioid tolerance and dependence and the interactions between pain and analgesic signaling. Under the leadership of Dr. Gutstein, a successful physician scientist fully committed to advancing anesthesia-related research, we are poised to achieve an even higher level of excellence and enter the next era of even greater success.

Over the decades, the University of Pittsburgh/UPMC Department of Anesthesiology has blossomed into one of the largest and best anesthesiology departments in the nation. When Dr. Safar arrived in Pittsburgh to start the department, only three

physicians and 70+ nurse anesthetists managed all anesthesia services. Today, we serve 17 clinical sites, manage nearly 300,000 cases a year, and are staffed with more than 150 faculty physicians and over 350 CRNAs. Our ACGME-accredited residency program is now widely considered one of the best in the nation. We now host eight fellowship training programs: ACGME-accredited fellowships in adult cardiothoracic, pediatric, and obstetric anesthesiology, as well as anesthesiology critical care medicine and pain medicine; we also offer fellowships in hepatic transplantation anesthesiology, neuroanesthesiology, and acute pain and regional anesthesiology, one of the largest US programs in the specialty. Today, we train about 120 residents and clinical fellows every year. We also host two NIH T32 research fellowships to train pain researchers and physician scientists to become the next generation of leading researchers and physicians in academic anesthesiology.

Many illustrious individuals started their careers in the Pitt/UPMC Department of Anesthesiology, making their mark in the field and other medical specialties and shaping us into the success we are today. As we begin our next era of excellence, we reflect on the tremendous accomplishments of all the innovators who came before us.

DEPARTMENT HISTORY

CHIEF ANESTHESIOLOGISTS AT UPMC AND AFFILIATED HOSPITALS

HOSPITAL	CHIEFS
UPMC Mercy	Francis Foldes Rick Siker Bill Hetrick Chris Troianos Richard Kuwik (interim) Andrew Herlich Mark Hudson (interim) Jerry Clark Richard Kuwik (interim) <u>Current:</u> Calin Gorun-Gorunescu (interim)
Children's Hospital of Pittsburgh of UPMC	Joseph Marcy D. Ryan Cook <u>Current:</u> Peter J. Davis
Magee-Womens Hospital of UPMC	Otto Phillips Robert Hingson Ray McKenzie Sivam Ramanathan Kelly T. Shannon (interim) <u>Current:</u> Jonathan H. Waters
UPMC Eye and Ear Hospital	Walter Bauer Oscar Farmati Jack Quinn R. Brian Smith Bulent Kirimli Achiel Bleyaert Fred Khalouf Rene Gonzalez Andrew Herlich <i>Eye and Ear Hospital became Eye and Ear Institute Pavilion of Montefiore Hospital in 1990-1991</i>
VA Pittsburgh Healthcare System	John Ziegler Deryk Duncalf Hugh Franklin Hugo Kessler Bulent Kirimli Rick Bjerke <u>Current:</u> Michael Mangione
UPMC Montefiore	Elliot Jacobson Stephen C. Finestone W. David Watkins <i>Montefiore was integrated into Presbyterian in 1990-1991</i>

HOSPITAL	CHIEFS
UPMC Presbyterian	Leonard Monheim Peter Safar David Torpey Maurice Albin R. Brian Smith Les Cronou Achiel Bleyaert Jose Marquez Jan Smith Barbara De Riso Phil Lebowitz John P. Williams Joseph Quinlan <u>Current:</u> Shawn T. Beaman, MD (interim)
UPMC Shadyside	Jack Scott/William Stept Richard Feduska Mark Hudson <u>Current:</u> Robert Boretsky
UPMC Southside	Raymond Schwartz <u>Current:</u> Michael Kentor
UPMC Pain Medicine	Ruben Tenicela Brett Stacey Doris Cope <u>Current:</u> Ajay Wasan
UPMC South Surgery Center	Chein-Kuo "Jason" Kao Saryu Desai <u>Current:</u> Gregory Godla
UPMC Beaver Valley	Jan Smith <i>UPMC scaled back services at this hospital in 2000</i>
IsMeTT	Victor Scott <u>Current:</u> Antonio Arcadipane
UPMC Beacon Hospital	John Magner <i>UPMC sold Beacon in 2014</i>
UPMC Passavant	<u>Current:</u> Dan Sullivan
UPMC McKeesport	Evelyn Tirol Gonzalez-Abola <u>Current:</u> Michael Kentor
UPMC St. Margaret	Paul Shay <u>Current:</u> Jay Roskoph
UPMC Horizon	<u>Current:</u> Cynthia Wells
UPMC Northwest	Darren Loughran <i>The department stopped providing services at Northwest in 2015</i>

ADMINISTRATIVE LEADERSHIP

ROLE	NAMES
Chair	Peter Safar R. Brian Smith (interim) D. Ryan Cook (interim) Peter Winter Leonard Firestone John P. Williams Marshall W. Webster (interim) <u>Current:</u> Howard B. Gutstein
Vice-Chair	Etsuro K. Motoyama W. David Watkins <u>Current:</u> Mark E. Hudson (Executive Vice Chair)
Vice-Chair for Clinical Operations	Jan Smith <u>Current:</u> Mark E. Hudson
Vice Chair for Education	Robert Willenkin Rita M. Patel <u>Current:</u> David G. Metro
Vice Chair for Faculty Development	Andrew Herlich <u>Current:</u> Rita M. Patel
Research Leadership	<u>Director, Anesthesiology Research</u> Steve Galla <u>Vice Chair, Science and Research</u> Etsuro K. Motoyama Leonard L. Firestone <u>Vice Chair for Basic Research</u> <u>Current:</u> Yan Xu <u>Vice Chair for Clinical Research</u> Jacques E. Chelly <u>Current:</u> Jonathan H. Waters
Residency Program Director	Roy Harris D. Ryan Cook David H. Wilks Andrew Herlich (interim) Charles Buffington Rita M. Patel <u>Current:</u> David G. Metro
Medical Student Programs Director	Paul Berkebile Peter Waterman Julie Tome <u>Current:</u> Michael Mangione
Nurse Anesthetist Education Program Director	<i>CRNA Director</i> Mary DePaolis-Lutzo Elizabeth Monti <u>Current:</u> John M. O'Donnell <i>Physician Director</i> Stephen C. Finestone Andrew Herlich Jay Roskoph <u>Current:</u> Theresa Gelzinis
Senior CRNA Director	Ella Thomas Brent Dunworth <u>Current:</u> Tim Lyons