

Mayo Anesthesiology Alumni Newsletter

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From the Chair

Mark Warner, M.D.

Many of our department members have just returned from the Midwest Anesthesia Residents Conference (MARC) in Chicago. Our residents and fellows represented us well with outstanding presentations. Their studies and reports were well prepared, they looked sharp, they spoke well, and they carried on the long-time department tradition of bringing home a large proportion of the available awards. You can be very proud of them.

The Mayo tradition of excellence at the MARC can be traced back to the very first resident research conference in the country. In 1961 Bill Hamilton and Jack Moyers at the University of Iowa hosted trainees from ten Midwestern anesthesia programs. Encouraged and mentored by staff members Drs. Dick Theye and Bob Patrick, Drs. Jack Michenfelder, Kai Rehder, and Don Krabill drove south on a Friday morning to Iowa City. Jack captured the first prize, Kai finished a close second, and our Mayo-MARC tradition was established. Not a bad group to start it: two future ASA Excellence in Research Award winners (Jack and Kai), a future ASA Distinguished Service Award winner (Jack), and a future Mayo Distinguished Alumnus Award winner (Kai).

Parenthetically, a resident at St. Louis University, Tom Hornbein, presented an after-dinner talk on the joys of mountain climbing at that 1961 meeting. No one suspected that he and a partner would become the first climbers to completely ascend the west face of Mt. Everest just two years later. Their successful west ascent was not duplicated during the 35 years of Tom's career, including his years as Chair of the Department of Anesthesiology at the University of Washington.

Records of the first 20 years of the MARC are not readily available. However, our department has been awarded one or more of the conference's major awards in 20 of the 22 years since 1981. Today's residents and fellows are encouraged by our faculty to carry the tradition forward. They do it with pride and an aura of professionalism uncommon in many anesthesiology residents.

Pride and professionalism in our specialty and department are crucial to our continued success. The department's activities and influence are rapidly expanding outside of the traditional Methodist and Saint Marys Hospital surgical suites. Nearly half of our current activities involve practice, education, and research efforts beyond the typical operating room anesthesia practice. Our critical care and pain practices are growing, our preoperative evaluation services are expanding, and our research programs are increasing in scope and depth. This summer we will be joined by our 100th anesthesiologist, cover 168 anesthetic

areas daily, and coordinate the efforts of nearly 825 departmental members.

Anesthesiology is changing markedly and growing. We are establishing new practices, educational tracks, and research efforts to provide today's residents with the skills and knowledge that will allow them to be productive and relevant physician leaders throughout their careers. The traditions established by so many of you provide the pillars of pride and professionalism that allow these changes to occur.

Editor's Note

Peter Southorn, M.D.

This issue profiles colleagues who have made extra contributions to society. Many alumni have served in the armed forces, and we owe each of them a debt of gratitude. Alumni currently involved in the military are particularly in our thoughts. We asked Drs. Paul Didier, Allan Gould, and Jeffrey Welna to describe their military experience, and there is also an account of the career of Dr. Robert Lennon, who became a general in the U.S. Army Reserves. We also detail the marvelous work of Dr. Roger White and briefly describe the leadership of Drs. Keith (Tony) Jones and

Randall Flick in establishing and running the Ronald McDonald House here in Rochester. Finally, but not least, Dr. Mike Joyner describes his laboratory's research which have gained him, his colleagues, and our department international credibility.

For its continued success, this newsletter needs your input. Please share some insights of your time at Mayo or its influence on your subsequent career. You may contact us through my e-mail (southorn.peter@mayo.edu) or by U.S. mail.

P.S.

Data from this year's Midwest Anesthesia Residents Conference (MARC) in Chicago have become available as we go to press. Our residents and three Mayo Medical School students who presented did magnificently, winning seven of the 1st prizes and five of the 2nd prizes.

The 2004 MARC will take place in Rochester. It will be a wonderful opportunity to showcase our department and facilities.

Military Profiles



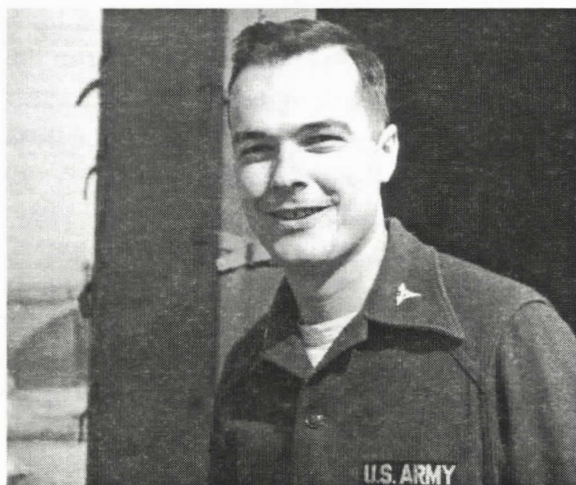
Colonel E. Paul Didier, MC, USAR (Ret.)

I graduated from high school in Torrington, Connecticut, in 1942 and went immediately to Williams College in Massachusetts via the "accelerated program". What I really wanted was to join the Army and learn to fly, but being only 17 years old, I had to wait until 1943 when I signed up as a potential Aviation Cadet. I was found to be unable to read the correct symbol in the color acuity test and ended up going to aerial gunnery and power plant school to qualify for crew membership in the (Top Secret) B-29 program.

After training in Kansas and Nebraska, our eleven-man crew went to Saipan, Marianas, with the 73rd Bomb Wing in October 1944, flew 35 missions to Japan (some more exciting than others!) and 15 "training" missions over Truk, Marcus, and Iwo Jima. We finished our tour relatively intact, and while on our way home in August 1945, the Atomic Age started and the war ended.

Back to college and on to marriage and medical school where we started our family, which made it seem prudent to seek (successfully) internship and residency training via the USAF program. By the time I was invited to join the staff at Mayo in 1960 by Dr. A. Faulconer, I had accrued 10 years of service, and so I accepted an invitation to sign up in the 5071 Med. Hosp. Det. at Mayo. We gave shots and annual physicals for Reserve Units and attended classes, seminars, and educational meetings (which we called "drills"). In 1985, I attended the Army War College at San Antonio, Texas. In 1988, I retired from the USAR with the rank of colonel.

Decorations and Awards: Distinguished Flying Cross, Air Medal, 5 Oak Leaf Clusters, Purple Heart, Army Achievement Medal, and various unit citations and theater medals.



Captain Allan B. Gould, Jr., MC, USAR (Ret.)

Having finished one year of my anesthesia residency, I was called to active duty. After the usual indoctrination at Fort Sam Houston, I was sent to Korea and assigned to a SHMA (Surgical Hospital Mobile Army) better known as a MASH. These units received trauma and medical patients by helicopter or ambulance as well as an occasional Korean soldier or civilian. We treated wounds and fractures and

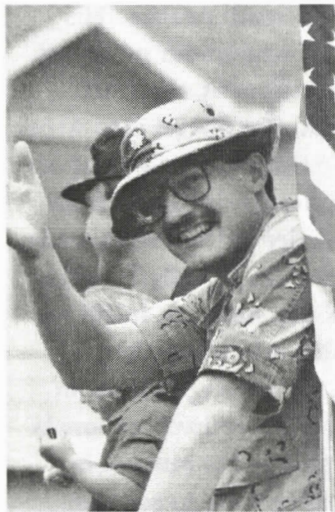
managed routine medical/surgical problems such as appendectomies. The patients were then either sent to an Evacuation Hospital or back to their units.

The officers lived two to a tent and several Quonsets were used as wards and support facilities. A generator supplied power, and surges in power would sometimes blow out all the lights. I can remember holding my laryngoscope over the surgical field while waiting for flashlights to use until the standby generator started. Eventually we got one, battery-powered, freestanding OR light to resolve that problem. Our army issue gas machines were inferior, but a predecessor of mine had also acquired a dandy gas machine reportedly off a naval ship. Such swapping between units was a necessary part of life.

Because much of the surgery involved débriding wounds, I did a lot of spinals and axillary blocks. When I arrived at the MASH, medica-

tions for spinals and blocks were being cold sterilized. One of the crystal pontocaine ampoules had nothing in it but a drop of liquid and no visible crack in the glass, so it was clear that cold sterilization was out. Epidurals were not widely used; Pentothal, ether, nitrous oxide, and curare were the primary drugs used for general anesthesia. While I was there, the only blood type given was O Positive. Because errors in crossmatching had been a frequent problem, it was not done in this young healthy, male population.

As each VIP came through, and there were many, they always asked how they could help us. I would tell them I could not get succinylcholine and explained why I felt it was important. I was always reassured that I would have it almost immediately, but it never came. I finally wrote to the manufacturer and explained the problem and almost by return mail got enough samples to last for the duration of my Korean tour.



Major Jeffrey O. Welna, MC, USAR (Ret.)

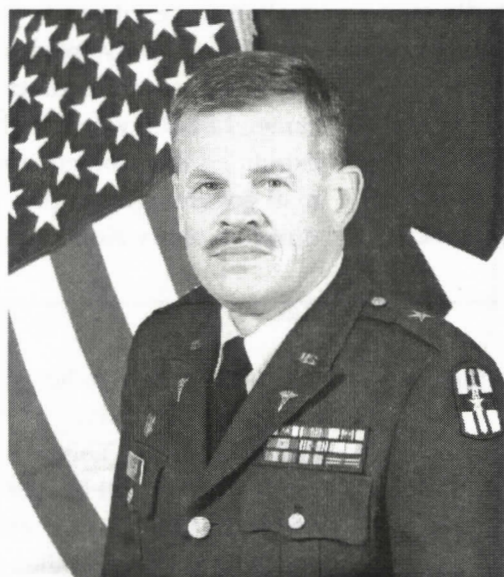
I joined the Army Reserves as a captain in 1987 with the encouragement of then Colonel Robert Lennon. My career was relatively uneventful until I became commander of the 318th Medical Detachment in 1990, and it became obvious that troops would be deployed to the Persian Gulf. I received my mobilization orders late in November--the same day my wife totaled one of our cars by hitting a deer! We left the U.S.A. in mid-December and arrived in Saudi Arabia about 36 hours later, only to be convoyed into the desert all night long and eventually arriving at the 12th EVAC Hospital. The 12th was an active duty unit from Germany, and they were not expecting visitors. This was made clear when we were told in no uncertain terms that we were merely co-located and not attached to the 12th. This meant that we had

to procure our own tents and all necessary support for ourselves by the "combat acquisition" technique. This was aided by a fellow commander, a full Colonel (neurosurgeon), who asked the two MP corporals who were guarding the semi-trailer with CP Medium tents on it, "Where the hell is the driver of this truck? We've come for our tents!" We soon had our tents. While located with the 12th, we assisted in about 125 total anesthetics and numerous elements of triage in the ER. We were at the time one of the northernmost units in the country, and therefore, we took care of many American soldiers injured during the build up phase of deployment. This included gunshot wounds, hot appendicitis, herniated lumbar discs, abscesses, and many motor vehicle crashes.

We assisted the 12th for about six weeks after which I was asked to assume the role of anesthesiologist for the 13th EVAC Hospital, a unit from Wisconsin. I became very good friends with one of their anesthesiologists who returned to

practice in Wabasha, Minnesota. When we reached the brink of the ground war, the 13th was to be utilized for American casualties; our sister EVAC, with whom we shared a helipad, was to care for enemy prisoners of war (EPW). We quickly found that when a Chinook full of EPWs would arrive, the ER would be saturated for several hours. The 13th would then accept EPWs for treatment. The majority of these patients were in pretty bad shape, many with extensive blast injuries needing debridements and amputations. Often we were told that these very young men had been living on rain-water and sprouted grain for extended periods

of time before they were found. We had an incident where a member of the Republican Guard had been captured and sent to us for care. While he was recuperating, we had to post a guard to prevent the other Iraqi patients from doing him harm. This situation lasted for about six weeks when we were told to stand down for deployment home. I remained in Saudi Arabia until the first week in May when I returned to Mayo weighing about 149 pounds. I since have regained my weight, have no signs of "Gulf War Syndrome" and continued in the reserves until 1996.



***Brigadier General Robert L.
Lennon, MC, USAR (Ret.)***
Peter Southorn, M.D.

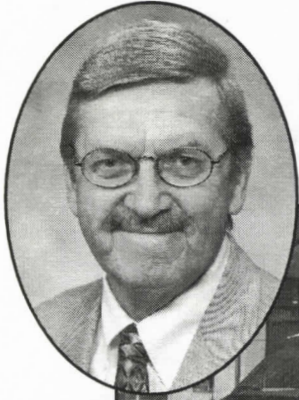
Bob began his army career as an anesthesiologist in 1977. While in the military, he completed a fellowship in the specialty at the Mayo Clinic between 1980 and 1982. In the subsequent two years, he acted as Chief of Anesthesia and Operating Room Services of the 97th General Hospital in Frankfurt, Germany, after which he was released from active duty and returned to the Mayo Clinic as a consultant. His vast experience particularly in regional anesthesia, his gift of teaching, and enthusiasm for research into the mode of action

of muscle relaxants made him a superb addition to the staff. With these attributes, together with his leadership abilities, he became director of the nurse anesthesia program and then subsequently head of the orthopedic section of the department. While at Mayo, he continued to be active in the U.S. Army Reserve and, in 1991, was recalled to active duty during Operation Desert Shield/Storm and served at an evacuation hospital in Saudi Arabia. His reserve duties included Commander positions of the 318th Medical Detachment, the 73rd Combat Support Hospital, the 5501st U.S. Army Hospital, and finally Commanding General of the 807th Medical Brigade. He resigned from the Clinic in 1994 to practice at the Presbyterian Hospital Systems in Charlotte, North Carolina, a location which was better suited to fulfill his military obligations. This relocation also enabled him to pursue his lifelong interest in sailing. Subsequently, he has retired to Florida where he continues to pursue his interest in sailing. Fortunately, we continue to see him quite frequently at Mayo when he helps cover department staff absences.

Bob received numerous awards and decorations during his military career. There is so much to admire about Bob. Quiet and reserved, he is a natural-born leader. He is someone who has made a major contribution to our nation's well-being both in the military and the provision of health care.

Roger D. White, M.D. — An Unsung Hero

Peter Southorn, M.D.



Most anesthesiologists who have worked at Mayo admire Dr. Roger White for his skill as a cardiac anesthesiologist, his

expertise in interpreting complex EKG traces, and his leadership in teaching cardiopulmonary resuscitation (CPR). Since Roger is not given to self-promotion, what few of us may appreciate is that he is recognized by emergency medical technicians (EMTs) nationally for his devotion to improving their training, competence, and capabilities. His involvement in this endeavor preceded emergency medicine becoming a specialty in its own right and continues to this day. Most importantly his research in this field confirming that early defibrillation is the most critical component in resuscitating patients with out-of-hospital cardiac arrest caused by ventricular fibrillation has led to fundamental changes in how rapid defibrillation is made available. Successful application of this concept by the Rochester police officers and firefighters, along with paramedics, has led to the city of Rochester, Olmsted County, having the highest reported survival rate from ventricular fibrillation cardiac arrest in the country. This approach is now being utilized throughout the United States and, indeed, the world.

In 1966, while doing an internal medicine residency at Mayo, the army drafted Roger and told him he was to become an anesthesiologist. After his national service, he rejoined Mayo and went on staff in 1970. Since a child, Roger was always fascinated with ambulances, and on the day he was appointed a consultant, he contacted John Perkins, the owner of the Gold

Cross Ambulance Service in Rochester, to volunteer his services. This offer rapidly led to Roger devoting much of his free time to organizing and running a teaching program for EMTs and establishing new standards of care. In 1973, he was appointed the medical director of Gold Cross Ambulance Service—a responsibility he still holds today. The initial EMTs taught by Roger were among the first in the nation to be examined and certified by the National Registry of Emergency Medical Technicians. He, himself, was appointed one of the original board members of this organization. This and his becoming a member of the American Heart Association's Emergency Cardiac Care Committee gave national exposure to what was happening in Rochester, and manufacturers started field testing their new equipment here. These innovations included cardiac monitors, telemetry equipment, defibrillators, and pre-filled drug syringes. His papers from that time demonstrated the benefits that can result from teaching EMTs to start intravenous therapy, proper techniques to control the airway including endotracheal intubation, and proficiency in cardioversion and defibrillation. The latter particularly was a feat given that the defibrillators of that time were not automated and exceedingly cumbersome.

Roger began his practice carrying an emergency radio. This enabled the police and/or ambulance crews to contact him day or night if they perceived his help was needed. If so called, he would "run the code" and, if at all possible, drive to the scene in his own custom-designed ambulance: a modified station wagon provided by Gold Cross equipped with red lights and a siren. All this work led to some early notoriety and fame with the Gold Cross Ambulance Service being recognized nationally, the Rochester mayor proclaiming a Roger White Day, and an array of national and international awards, a few of which line the walls of his office.

In the early 1980s, Roger, Larry Vukov in Internal Medicine, and their colleagues at Mayo confirmed the experience of others in Seattle and King County, Washington, and in rural Iowa that early cardiac defibrillation was a key factor in successfully resuscitating patients in witnessed out-of-hospital cardiac arrest. This Mayo study was made possible by analysis of the data made available by Roger's early insistence that each resuscitation attempt be vigorously reviewed. In 1990, the U.S. Food and Drug Administration (FDA) approved the use of automatic defibrillators for the first time. Soon afterwards, Roger, knowing again from his data that the police often arrived on the scene of an accident or arrest a few minutes before other first-line responders, approached the police department in Rochester and suggested that they equip their squad cars with defibrillators and that police officers be trained in using and maintaining this equipment. He met with a very favorable response. He was appointed the medical director of the Rochester police department to oversee getting this new responsibility for the police officers off the ground. His intuition was to prove correct and, in 1994, again with Larry Vukov, he published a landmark paper demonstrating an improvement in cardiac arrest survival when the police officers first on the scene were able to initiate early defibrillation. In 1998, the Minnesota legislature approved funding to train and equip police forces throughout the state with such defibrillators. Since that time, the importance placed on early defibrillation in cardiac arrest resuscitation has spread worldwide and chances are, if you travel by plane today, it will have an automatic defibrillator onboard. This change in the philosophy of managing CPR is certainly known to everyone who has taken the basic or advanced cardiac life support course. Behind the scenes, Roger has also played a pivotal role in changing other facets in resuscitation, such as the importance of stopping futile resuscitation efforts.

Roger has received numerous awards and is a dear friend of many outside anesthesiology as a result of this immensely important work. He has twice been elected chair of the Board of

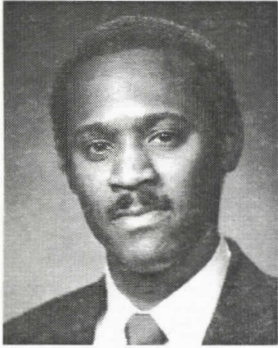
Directors of the National Registry of Emergency Medical Technicians and received numerous awards from the National Association of Emergency Medical Technicians, the American Heart Association, and the Food and Drug Administration. Early in his career, Roger was elected a fellow of the American College of Cardiology, and this year, our cardiology colleagues at the Mayo Clinic gave him a joint appointment in their department. Equally important to Roger, perhaps, is the deep friendship and affection with which he is held by many people. These would include Myron Ricks and Bernard Gilles--dear CRNA colleagues, now deceased, who for many years, under Roger's guidance, organized CPR courses at the Mayo Clinic; John Perkins and Jeff Harte at Gold Cross and indeed all of the paramedics there; the Rochester Police and Fire Departments; many civic dignitaries; and last but not least, Brian McGlinch, an EMT trained by Roger before entering medical school and now a member of our department.

Roger has multiple diverse interests outside medicine. He is an avid car enthusiast and a collector of ambulances with his most proud possession having been the last Cadillac ambulance to come off the production line. He has a deep commitment to animal welfare, particularly, the ethical treatment of animals in medical research. Another avocation is to take voyages on Great Lake ore carriers, which, according to his friends, offer him the best chance of relaxation from his normally hectic life.

Today, Roger continues to be a leading light and one of the few anesthesiologists involved in improving pre-hospital care, a field which now attracts others from multiple medical and surgical disciplines. His work, together with colleagues such as Dr. Norman McSwain, Jr., a trauma surgeon from Tulane University in New Orleans, has helped to define curriculum standards for paramedic training, resulting in major advances in pre-hospital care. It is doubtful whether any other anesthesiologist can claim an equivalent accomplishment.

Ronald McDonald House

Peter Southorn, M.D.



Dr. Tony Jones



Ms. Evelyn Jones



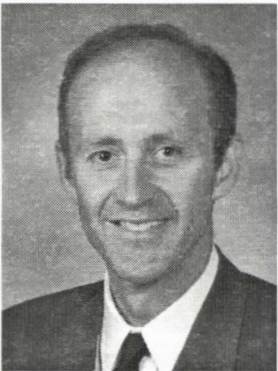
Dr. Randy Flick



Dr. Tony Jones, one of our prominent researchers, along with his wife Evelyn, who works in Administrative Services, have played a major role in establishing and sustaining our Rochester Ronald McDonald House located on Second Street near Saint Marys Hospital. This home opened in 1995 and is a vital resource to families whose children are undergoing treatment at our institution. As well as volunteering countless hours, Evelyn led the capital campaign to establish the House, and Tony has served in multiple capacities on its governing board including being its president. Recently, Dr. Randy Flick, a senior pediatric anesthesiologist colleague who likewise had devoted numerous hours volunteering for the House, became president of its board. Congratulations and our thanks are certainly due to these fine people.

Human and Integrative Physiology Laboratory

Mike Joyner, M.D.



Dr. Mike Joyner

The Human and Integrative Physiology Laboratory is part of the Department of Anesthesiology's Research Division. It is directed by Drs. Mike Joyner and Niki Dietz. Recently Dr. John Eisenach began helping them in this activity. The primary focus of the laboratory is to better understand how the autonomic nervous system alone and in combination with the vascular endothelium regulates the cardiovascular system in humans. To investigate these general issues, a variety of invasive studies in volunteers and patients are conducted in Mayo's NIH funded General Clinical Research Center (GCRC). Many of the basic themes and approaches in the laboratory have descended directly from the work of Drs. John Shepherd and Kai Rehder who established world class human physiology programs at Mayo in the 1950s and 60s. Over

the years a number of post-doctoral fellows have received training in the laboratory. The current fellows are Drs. Nisha Charkoudian, Frank Dinunno, and Bill Schrage. Beth Martin from the Department of Physiology and Biophysics is a graduate student working on her Ph.D. in the laboratory. Recent observations made by the group include:

- 1) More than 50% of basal vascular tone in humans is due to post-junctional alpha 2 adrenergic receptors. This finding challenges long held dogma that alpha 2 receptors are almost exclusively pre-junctional.
- 2) With aging there is an increase in sympathetic activity at rest, but a reduction in blood vessel responsiveness to norepinephrine.

3) Many months (or years) after surgical sympathectomy of the arm, reflex control of the sympathetic nerves is absent, but there is strong evidence for re-innervation.



Human and Integrative Physiology Laboratory staff gather around one of their volunteer subjects.

4) Metabolic vasodilation in skeletal muscle blunts the ability of the sympathetic nerves to cause vasoconstriction.

5) A minor genetic variation in the B-2 adrenergic receptor (that is present in 25% of the population) can have marked effects on vaso- and bronchodilator responsiveness in humans. This genetic variation may also affect a variety of other physiological responses.

Our work is facilitated by our laboratory coordinator Karen Krucker, our research nurse Shelly Roberts and also by Chris Johnson, Tara Sellnow, and Branton Walker. Secretarial support is provided by Janet Beckman. Funding is provided by a number of NIH grants and by Mayo.

Anesthesiology Residency News

Steve Rose, M.D.

I am pleased to inform you of the results of the 2003 National Resident Matching Program (NRMP "match").

We were extremely pleased with the results of the 2003 match. Eighteen outstanding candidates for residency training matched with our program and will initiate their anesthesiology training summer quarter 2004. This group includes one trainee who has completed a Doctor of Philosophy degree, one Mayo Medical School student, four members of the Alpha Omega Alpha medical honor society, and four women. Their mean score on Step 1 of the USMLE was 227. The visiting medical student clerkship appeared to be a very successful tool in helping recruit high-quality applicants again this year.

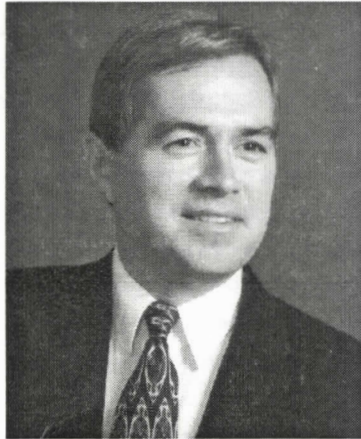
Thanks to all residents and faculty for their efforts in recruitment this year. This is a department-wide effort that requires a large

commitment of time from those involved directly and indirectly (for example through case coverage during interviews) in this process.

The residents who "matched" with our program are: Joel Ackerman (U of Kansas), Michael Bengough (U Col of Dublin), Dean Dewald (U of South Dakota), Cassie Dietrich (U of Missouri), Justin Evans (U of Kansas), William Hartman (Finch U, Chicago), Rukmin (John) Hettiarachchy (Creighton), Bryan Hoelzer (Tulane), Michael Hogan (Roy Col of Surg, Ireland), Jeffrey Jensen (U of Wisconsin), Francis (Ted) Lytle (Ohio State), Christopher Mickelson (U of Minnesota), Christian Monson (U of Virginia), James Onigkeit (Duke), Joyce Onwere (U of Pittsburgh), Jennifer Rasmussen (U of Nebraska), Juanita Rivera (Michigan State), and Ryan Smith (Mayo).

News About People

Peter Southorn, M.D.



Dr. Daniel J. Cole

We wish to extend our deepest sympathies to the family and friends of **Dr. Vijay Gholkar** who died suddenly late last year. Vijay was a resident in the department in the mid-1970s and subsequently practiced in Kansas City, Missouri.

We would like to congratulate **Dr. Terese Horlocker** on her assuming the presidency of the American Society of Regional Anesthesia and Pain Medicine (ASRA).

Dr. Leslie Milde, currently the Chair of the Department of Anesthesiology and newly appointed member of the Board of Governors at Mayo Clinic, Scottsdale, announced that **Dr. Daniel J. Cole**, currently professor of Anesthesiology at Loma Linda University Medical Center, has been chosen to succeed her as the new chair for the department. Dan is a well-established investigator and authority on neuroanesthesia, central nervous system injury and protection, and pain management techniques. We welcome Dan and his family to this position and wish him every success.

Dr. Edward Wegrzynowicz, known affectionately to his many friends as "Eddy Alphabet", sends his regards to us all. He is now in private practice in Aberdeen, South Dakota.

We received this picture of **Drs. Harry Seldon and Emerson Moffitt** taken at the 1984 IARS meeting.



Drs. Harry Seldon and Emerson Moffitt



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