

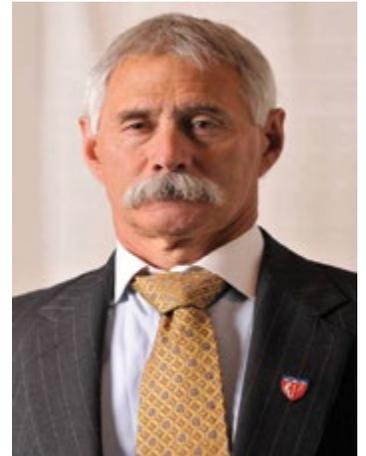
2015 Lifetime Achievement Award

THE SUS HONORS THE 2015 LIFETIME ACHIEVEMENT AWARD WINNER **Ernest “Gene” Moore, MD**

The Society of University Surgeons has awarded Ernest “Gene” Moore, MD, Vice Chairman for Research and Professor of Surgery at the University of Colorado Denver, the 2015 SUS Lifetime Achievement Award.

The Society of University Surgeons initiated the Lifetime Achievement Award (LTAA) in 2005. This award was designed to recognize individuals who have had a sustained career in academic surgery with contributions to surgical science. In addition, these individuals have demonstrated a commitment to the Society of University Surgeons whereby they have participated in the Society even after superannuating to Senior Membership status. The Society of University Surgeons seeks to honor and recognize these individuals because of their embodiment of the principals of the Society.

Dr. Moore was nominated and selected by his peers based on his leadership in academic surgery as well as the SUS, including his role on the SUS Executive Council and as SUS President in 1989. He was Chief of Trauma at the Denver General Hospital for 36 years, and is currently Editor for the *Journal of Trauma*. An active investigator for nearly 40 years, Dr. Moore has over 1,500 publications. In addition, his mentorship is widely recognized in all aspects including professionalism, career decisions, patient care conundrums, and research, and Dr. Moore was lauded for his ability to encourage, listen, and help mentees explore new research directions.



Ernest “Gene” Moore, MD

Family and Mentors

Dr. Moore’s medical career began earlier than most. His father was a family practitioner in western Pennsylvania and Dr. Moore used to spend Sundays after church going on house calls to various farms. Payment from those house calls might mean a chicken, half a pig, and some eggs. These types of rural rounds led to the development of an early appreciation of the commitment to medicine.

To say that medicine is a family affair in the Moore family would be a serious understatement. His uncle was an academic cardiac surgeon and inspired him to pursue surgery. Two more uncles and several cousins were also physicians. Two of Dr. Moore’s brothers are trauma surgeons, his wife Sarah is an internist, his oldest son Hunter is training to become an academic surgeon at the University of Colorado, and his younger son Peter is training to pursue academic cardiology at UCSF. It would have been more surprising in fact, had Dr. Moore not pursued a medical career.

Dr. Moore’s interest in trauma surgery developed while completing surgical residency at the University of Vermont. It was here Dr. Moore met his first mentor Dr. John Davis, the chairman of surgery and very well-known academic trauma surgeon who was allegedly the prototype for the *Mash* character, Hawkeye. Dr. Moore cited a string of mentors who inculcated in him scientific curiosity and an ongoing interest in research. This began in medical school at the University of Pittsburgh, where he worked in the research laboratories in the summer with Dr. Henry Bahnson, a very famous cardiac surgeon. Dr. Moore worked with Dr. Bahnson on projects including the development of the intra-aortic balloon pump. Once in surgical residency, Dr. Moore worked with Dr. Davis to develop a balloon for retrohepatic vena cava injuries, which was presented at the SUS resident’s meeting.

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Mentorship continued as a junior faculty at the University of Colorado. Here Dr. Ben Eiseman (1962 SUS President) gave Dr. Moore a functional NIH shock lab at Denver General Hospital. Dr. Alden Harken (1985 SUS President) further developed the trauma research group at the University of Colorado which been together and externally funded by the NIH for over 25 years. The value of investigative work as a surgeon was the most important lesson learned from all of these renowned mentors.

On Academic Challenges

When asked about the unique challenges facing academic surgeons today, Dr. Moore first described attributes of his mentors that would allow a surgeon to overcome any challenge. Dr. Eiseman, he said, was incredibly innovative and he could come up with a research project for literally every patient seen with him. He was well-read and always knew the relevant question. Dr. Moore described Dr. Harken as a phenomenally talented cardiac surgeon and investigator with incredible enthusiasm. Dr. Moore felt lucky every day to work with Dr. Harken and appreciated the positive effect he had on the providers around him. It is clear to Dr. Moore that an innovative spirit coupled with a positive attitude and a desire to answer difficult questions will allow surgeons to continue to make a significant impact in the future.

Regardless of these traits that may allow surgeons to overcome future challenges, Dr. Moore did have some insight into the difficulties facing the academic surgeon of the future. In particular, Dr. Moore recognized that control of the department of surgery is becoming more and more centralized taking a significant amount of power away from the chair of surgery. He noted that in the past, the chair of surgery would typically have a track record in research and encourage the same amongst their trainees. A new faculty member of the department was expected to operate but the surgeon's record of investigation and academic productivity was most often the factors that determined the success of the surgeon. Dr. Moore went on to say that in today's world, the priorities of the chair are often trumped by those of the institution and the department of surgery is often the revenue generator for the entire system. He remarked that this situation is particularly difficult for surgeons as we are confronted with the challenge of negotiating with those who run the hospital for academic resources for surgical departments.

The problem of institutional priority has been compounded by dwindling resources available from the NIH. Dr. Moore commented that in the past, the most promising and productive young investigators could find funding and if a surgeon didn't succeed, the departments often had internal resources to support research for a short time period. He opined that funding and time allocation are both critical issues today. He reasoned that any trainee aspiring to career as an

academic surgeon needs to take at least two years off from their clinical training to learn how to think critically and to gain the necessary skills to be successful in the academic setting. He believes this period of time should be completely divorced from clinical duties allowing the trainee to commit time and effort to learn the scientific method. Dr. Moore stated "It's about more than just publications, it's about learning to think as a scientist and rigorously ask every question and control all of the confounders." This requirement in Dr. Moore's mind is made extremely difficult by the priorities of the institution.

Despite these challenges, Dr. Moore remains ever hopeful for the future. He believes that this dedicated research experience changes "...your perspective on how to approach the patient, which I think markedly enhances the quality of training as well as ultimately patient care, to have that background and scientific curiosity and always ask what can we do better and challenge dogma." Dr. Moore believes that for those who are fortunate enough to enter into the career of academic surgery, it is both a privilege and an obligation. Life should be balanced outside of the hospital, but there are also inherent responsibilities. He challenges us to continue to push the academic surgical mission.

Career Counsel

When asked about any advice he has for surgical scientists today, Dr. Moore offered the following extemporaneously:

"The first question to ask yourself is: what are your priorities in life and at the end of your career looking back, what do you think you would like to have accomplished? There is an epidemic of burnout, and many surgeons are conflicted about priorities and the lifetime commitment to be a surgical scientist. You can't do everything—i.e. be a chairman, head various committees, lead educational activities, and maintain a research career. You have to make research the priority and the number one sacred time during the week—it will not work if it is tagged on at the end of the day or week. Not everyone is inclined that way and you should determine if science is your priority. What distinguishes surgical scientists is fundamentally they have a unique air of scientific curiosity. They have a different perspective on life, about what makes things work and the desire to improve on how things are being done. Ask yourself realistically: Is this your passion and do you really want to do this?"

Second, choose an area of clinical activity for which you have access to ongoing patient experience in order to be able to ask the right questions in a research environment. This seems simple but, for example, if you are interested in trauma, you have to put yourself in a busy trauma center and see the issues everyday and develop unique questions that you might miss were you not clinically active.



Dr. Gene Moore and his family.

Third, become involved in a multi-disciplinary group that has a shared interest. You must have basic scientists as part of the group. They value the input of surgical scientists. Today it's a unique situation in which basic science and surgical science cannot survive without each other to reach the translational level.

Lastly, surgical scientists must maintain a positive attitude and always try to find a valuable aspect of everything they encounter. Research can be very frustrating where, at times, every idea is validated in experiments but then, in other times, nothing seems to be working. Sometimes the unexpected is the most exciting part of your work. Research on a fundamental level is a roller coaster, there are huge peaks and valleys and you have to be an individual that can adapt and compensate for these uncertainties!"

Research Contributions

Dr. Moore's contributions have been plentiful and among them include work on the lethal triad and trauma-induced coagulopathy (TIC); the role of fibrinolysis shutdown in TIC; the two-hit model of multiple organ failure (MOF); the role of mesenteric lymph in the pathogenesis of MOF; the attenuating effects of hypertonic saline resuscitation on postinjury hyperinflammation, and resuscitation with hemoglobin solutions.

When asked about his contributions to science, Dr. Moore responded that nothing is accomplished in isolation and he credits his team for any perceived accomplishments. He is most proud of maintaining an active research lab since arriving in Denver in 1976, and that everything achieved has been a family effort, whether it was the encouragement and commitment from his own family or his colleagues on his research team.

With humble beginnings in the late 1970s, Dr. Moore's group has been supported by the NIH for the last 25 years. He describes his group as "phenomenal" and assures us that he looks forward to working with them every day. In fact, the future of trauma surgery research at University of Colorado remains bright as his rich prospective databases are 40 years, and matched with an unlimited sample bank upon which to base future investigation and to ask questions with the intent of improving patient care. As a result, Dr. Moore feels blessed to have remained on faculty at the same institution for his entire career.

The SUS, Vital Then and Now

The importance of involvement in the Society of University Surgeons was dictated early on by one of Dr. Moore's earliest mentors, Dr. Ben Eiseman (SUS President, 1962). This "ultimate mentor" helped Dr. Moore sketch out his first 10 year plan in 1976 which included at the top to attend the SUS and become an active participant. Dr. Moore highlighted the SUS as the most important surgical society in which a surgeon should become involved. He went on to describe the SUS as a unique group of academic surgical leaders with established productivity. Of course, the meetings were also a great deal of fun for Dr. Moore, especially when he was able to spend time with his other favored mentor and friend Dr. Alden Harken. Dr. Harken firmly believed the SUS was a critical in which an academic surgeon should be involved. Furthermore, Dr. Moore notes, "he was so much fun to go to the meetings with that I wouldn't dare miss a single meeting!"

Dr. Moore remains active in the Academic Surgical Congress and recognizes the importance this conference plays in the development of his surgical fellows. Every year he finds funding to send every one of his research fellows. As he reflected on his own experience at the SUS meetings where he would feel energized on returning to work, he recognizes the importance of this meeting in the development of his research fellows. He notes that the fellows come back invigorated and inspired by the work that they see and the colleagues they meet. In this way, the Congress serves as a great catalyst for investigators to continue their efforts.

When asked to describe the most memorable event of the many SUS Annual Meetings he has attended, without hesitation Dr. Moore recalled the time he was asked to host the local event. The local program was a staple of the annual meetings where participants were invited to visit the host university, listen to the research projects, tour the hospital and then have an informal reception at a faculty member's house. Under Dr. Harken's leadership in 1985, Dr. Moore hosted the reception which turned out to be an evening of revelry and camaraderie making it one of the most memorable nights associated with the SUS for Dr. Moore and the other attendees.

When asked to describe the importance of the Academic Surgical Congress in the place of academic surgery today, Dr. Moore stresses that this meeting provides a unique opportunity for investigators to hear what others are doing and to think about how that applies to what they are doing, regardless of their specialty. He explained that you can read what your colleagues are doing and attend specialty society meetings with them, but the importance of studying broadly cannot be emphasized enough. Listening to research outside of your area of expertise allows one to find common ground between fields. This enables a scientist to apply new ideas and research methods to one's own research. This aspect is one of the most critically important features of the ASC. This intellectual exercise leads to new discovery and scientific advancement that could not be achieved in a vacuum.

Outside Interests

In addition to his clinical and research interests, Dr. Moore has been active in endurance sports, mountaineering, skiing, and wapiti pursuit. Dr. Moore believes that you can't work hard unless you play hard and his favorite saying—attributed to Margaret D. Brown a Colorado rancher in the 1800s—hangs on his door and reads: "To succeed a man has to live as though he expects to die tomorrow, and work as though he expects to live forever." Everyone, regardless of vocation, he says, lives under very stressful conditions, and one needs to pause and take real breaks that provide complete relaxation and escape from the daily grind.

Dr. Moore's particular method of stress relief is through endurance sports. He has completed a number of ultramarathons, 100 mile bike races and innumerable triathlons, and while he enjoys the actual event itself, he enjoys the training the most as he uses his training as time to think about life. One of the joys of this time for Dr. Moore is the self-reflection that it allows him to do. He also appreciates the self-control that is required to endure and overcome the long training runs.

DR. MOORE'S FAVORITE SAYING:

To succeed a man has to live as though he expects to die tomorrow, and work as though he expects to live forever.

– MARGARET D. BROWN
a Colorado rancher in the 1800s

But not all of this training time is used for self-improvement. In fact, when training for the Ironman 5 years ago, he held his weekly lab meetings on training runs. The entire group would run for hours. He remembers the first several hours of the runs were very productive but they took place at three in the morning.

While he is an amazingly accomplished academic and an incredible athlete, what he has enjoyed the most has been the activities that have involved his family. Dr. Moore and his family have climbed Kilimanjaro, traversed the La Haute route from Chamonix to Zermatt, and climbed a number of substantial mountains. He emphasized that one of the great perks of being a surgeon is that it provides unbelievable opportunities for travel and learning the cultures of other countries. While presenting his work, his family went along everywhere in the world. "When one travels as an academic, the locals treat you embarrassingly nicely and provide you with insights into the culture of a country that you never get as a regular tourist," he said. "This is an unspoken but enormous advantage and surgeons over a lifetime and academic surgeons should take advantage of it."

Dr. Moore stated that people constantly ask him what he would change and he always replies "Absolutely nothing! People say that you work too hard—there is no such thing, as long as you play hard!"

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SUS Lifetime Achievement Award Winners

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Their participation in the Society is evidenced by their attendance at the meetings yearly and active participation in discussion of papers, attendance of the banquets and society functions. The Society of University Surgeons seeks to honor and recognize these individuals because of their embodiment of the principles of the Society. We seek to recognize these individuals to establish role models for younger generations of surgeons to honor and emulate their contributions to the science of surgery, and moreover to the Society of University Surgeons.

- 2014 **Marshall J. Orloff, MD**
- 2013 **Hiram C. Polk, Jr., MD**
- 2012 **Alden Harken, MD**
- 2011 **Patricia K. Donahoe, MD**
- 2010 **Ben Eiseman, MD**
- 2009 **Richard L. Simmons, MD**
- 2008 **Clyde F. Barker, MD**
- 2007 **Frank G. Moody, MD**
- 2006 **Basil A. Pruitt, Jr., MD**
- 2005 **James C. Thompson, MD**
- 2004 **John A. Mannick, MD**

