The Next Hundred Years

A Brent Eastman, MD, FACS

…to sing
To lords and ladies of Byzantium
Of what is past, or passing, or to come.
—William Butler Yeats, "Sailing to Byzantium"

Tonight we complete 99 years of this great fellowship in the city where it all began. At the First Convocation of the American College of Surgeons (ACS) in the autumn of 1913, President JMT Finney (Fig. 1) said, "Today the history of surgery in the United States and Canada is opened to a new page." And now our centennial year is upon us.

The founders of this College did remarkable things. And I hope you read about them and their successors this week, in the excellent history by Drs Nahrwold and Kernahan called *A Century of Surgeons and Surgery*. Carry it around with you and page through it at quiet moments to learn what surgery was like in the Americas before Dr Franklin H Martin (Fig. 2) and his colleagues had the courage to change things. How they and their successors transformed our profession from the risky business of 100 years ago to the true science of relieving suffering should make you proud to have cast your lot with ACS.

So you are the 100-year class of Fellows of the American College of Surgeons of the United States and Canada. Who are you? Introduce yourselves to your colleagues on either side of you, tell them your name, your specialty, and where you're from. You could make a friend for life.

It is possible, and even likely, that one of you has either just met the future President of the American College of Surgeons, who will take office roughly 30 years from now, or that you are that person yourself. In fact, there has been one astonishingly fertile fellowship class, of October 24, 1974, which met at the Clinical Congress in Miami Beach, FL, the first and last time it was ever held there. That one class produced 5 presidents—a fact I doubt they know themselves—including our first 2 women, pediatric surgeon Dr Kathryn Anderson and my immediate predecessor, Dr Patricia Numann, as well as academic general surgeon Dr Ted Copeland, rural general surgeon Dr Richard Sabo from Montana, and neurosurgeon, Dr Edward Laws.

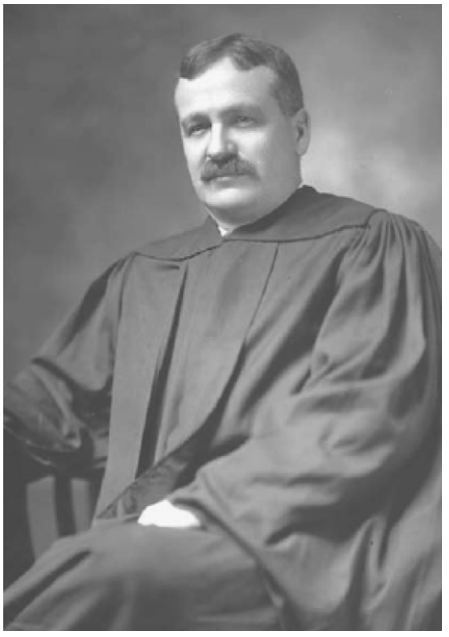

Figure 1. Dr JMT Finney, first American College of Surgeons President, 1913 to 1916.

So you have chosen to join forces with the 82% of diplomates of the American Board of Surgery who are also Fellows of ACS. Let me introduce you further to one another and tell you what you told me, in our survey of your fellowship class this summer: you are 1,377 strong. A little more than 1,000 of you are men and 300 are women. Your average age is 41 and you have been in practice typically 4 years or more. Eighty-three percent of you are residents of the US and Canada, but a full 17%—232 of you—are our new international fellows from 49 different countries and every continent in the world. And, not to be outdone in internationality, one-third of the North Americans here have parents born elsewhere, including all parts of Asia, the Middle East, Africa, Europe, and Latin America.

What reverberates here is the fact that although ACS was established first of all for the reform of surgery in the United States and Canada, Franklin H Martin always envisioned a world fellowship of surgeons. He had been

Disclosure Information: Nothing to disclose.

Received October 29, 2012; Accepted October 29, 2012.
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ISSN 1072-7515/12/$36.00
http://dx.doi.org/10.1016/j.jamcollsurg.2012.10.015

Figure 2. Dr Franklin H Martin, circa 1910.

inspired by the Royal College of Surgeons of England, after which he modeled the robes and ceremony you see tonight, and he spent much of his long tenure as Secretary traveling and establishing friendships with leading surgeons of Central and South America, and of Australia and New Zealand. A century later, Figure 3 shows a map of the international chapters of ACS: beginning with our 10 largest, in Mexico, India, Japan, Argentina, the Philippines, Australia, Brazil, and Greece; and then our full roster of 37 countries with chapters throughout the world, and Honorary Fellows from all over the planet.

More than half of you, 56%, are general surgeons, and the rest cover the entire spectrum of specialties. A vast majority (93%) of the North Americans in your class practice in cities and suburbs, but some stalwarts among you (7%) have chosen the life of a rural surgeon.

My class, of October 14, 1976, was similar to yours in some ways, but also very different. We were mostly general surgeons who operated with wide exposure; some of today's specialties did not exist or were in their infancy, such as minimally invasive and endovascular surgery. But the most striking difference between your class and mine is in the number of women: our 15 (1%) to your 307 (22%). The great news about this for leadership at every level of the ACS in the next 100 years is what we know about collective intelligence. The term *collective intelligence* refers to harnessing the power of a large number of people to solve a difficult problem as

Figure 3. American College of Surgeons, total 2012 international membership. (Source: American College of Surgeons Membership Data Base, 2012.)

Figure 4. "Wartime reduces the odds against her in a field rife with anti-feminine prejudice." Woman surgeon Dr Anita Figueredo, Memorial Cancer Hospital, New York, NY. (Reprinted from: *Look Magazine*, December 1, 1942, with permission of Sarita Eastman, executor, estate of Anita Figueredo, MD.)

a group. And researchers at MIT's Center for Collective Intelligence have found that the key factor in success, more important than the individual IQs of the group, more important by far than the IQ of the leader, is a high level of emotional intelligence. In other words, having a successful team, in and out of the operating room, isn't just about having smart people — it's about having people who will work together well. And emotional intelligence is strongly correlated with women.

I have always known what women surgeons could do—or at the very least, since 1972, when my first surgical partner was my mother-in-law, Dr Anita Figueredo (Fig. 4). Anita was a pioneering surgeon in San Diego, whose own mother brought her to New York from Costa Rica as a 5-year-old child, specifically because she wanted to be a doctor and Costa Rica had no medical school. Anita graduated from the Long Island College of Medicine in 1940 and was given the opportunity to become a resident in surgery at the Memorial Cancer Hospital in New York City (now Memorial Sloan-Kettering), after male residents were claimed by World War II. Some of the proudest moments of my career were my first 2 years in practice beside this skilled and compassionate surgeon with excellent results and a legion of admirers—including her 9 children and her friend, Mother Teresa of Calcutta.

After Dr Figueredo retired, my surgical partners of the next many decades were the 7 of us who worked together at Scripps as North Coast Surgeons. This was a true general surgery practice encompassing everything from noncardiac thoracic to all of general, vascular, and trauma, and it prepared me well for a larger leadership role in our health care system and in the ACS.

My roots were not too dissimilar from those of ACS founder Franklin H Martin. He was a country boy from a place called Ixonia, WI, and I grew up in Evanston, a town of 3,000 in southwest Wyoming; his people had never had any higher education and neither had mine. In his memoir, called *The Joy of Living*, Dr Martin wrote about a hard but exhilarating boyhood of physical energy, wholesome food, and good companionship, and that was my boyhood as well. As with many of you perhaps, my interest in medicine arose from needing a good doctor, and finding one.

In 1948, when I was 8 years old, I developed periodic abdominal pain with vomiting. After an unsuccessful appendectomy, our rural family doctor referred us to a surgeon in another city, so my father drove me in his Willys Jeep the 80 miles down canyon to a wonderful general surgeon in Ogden, UT. Dr Rulon Howe was University of Chicago and Mayo Clinic trained and he was able to recognize a sick boy just by opening the door and looking out across his crowded waiting room. An intravenous pyelogram that day showed bilateral obstruction of the uretero-pelvic junction by anomalous vessels. Dr Howe promptly referred me to urologists Dr George Fister and Dr Anthony Lund, who operated on me at St Benedict's Hospital in Ogden and saved my childhood. These were not only excellent surgeons, but were active leaders all their professional lives: Dr George Fister went on to become President of the American Medical Association in 1962, and Dr Rulon Howe, I'm delighted to say, was President of the Utah Chapter of the American College of Surgeons. So these men inspired me to become a doctor. And a tragic crash 3 years later made me set my sights on trauma surgery.

I have written before in my Scudder Oration about the Great Evanston Train Wreck of November 1951 (Fig. 5), so I will just tell you the basic story, which is that one passenger train slammed into another during what would turn out to be the worst blizzard of the winter. That year the Annual Clinical Congress of the ACS met in San

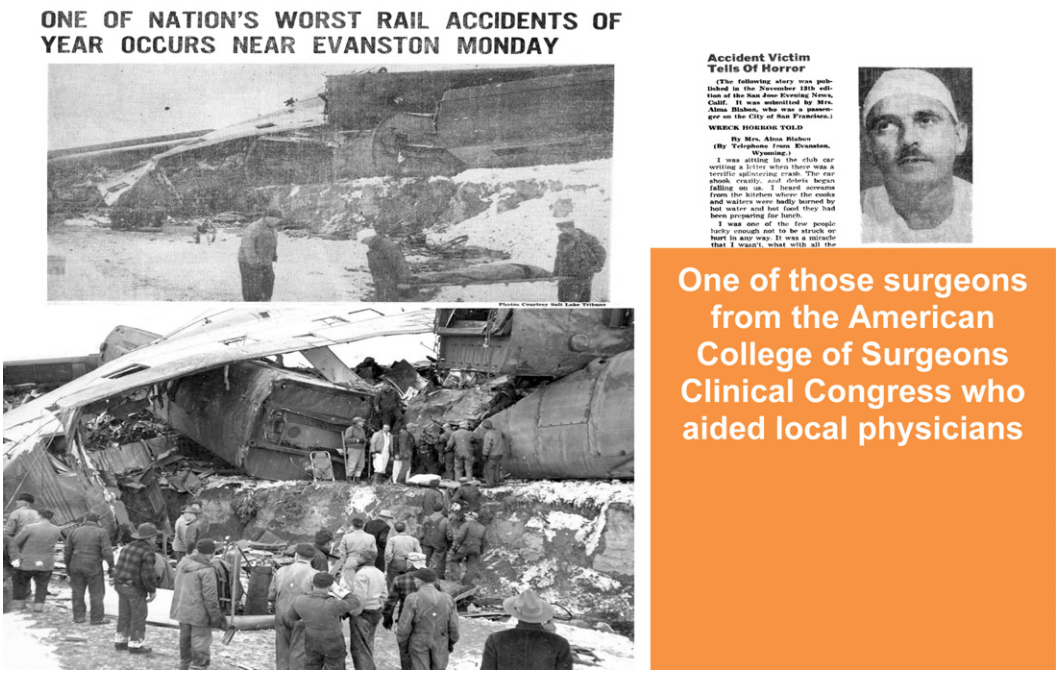

Figure 5. The Great Evanston Train Wreck, November 1951. (Reprinted courtesy of the *Unita County Herald*, from the Public Library of Evanston, WY.)

Francisco November 5 to 9 in the Fairmont Hotel. On Sunday, November 11 at 5:00 PM, some of the attending surgeons and their wives boarded the streamliner City of San Francisco, bound for Chicago. Eighteen hours later near Evanston, WY, the City of San Francisco ran a red light covered by new snow and hit the back of the halted City of Los Angeles with such force that the mangled cars took out a freight train on the side track. Some of the surgeons died; others crawled out of the wreckage and acted quickly, splinting fractures and generally helping the wounded. I was an 11-year-old onlooker, standing next to my dad, a locomotive engineer who ran those passenger trains, and I suddenly knew I wanted to be able to take care of people like that.

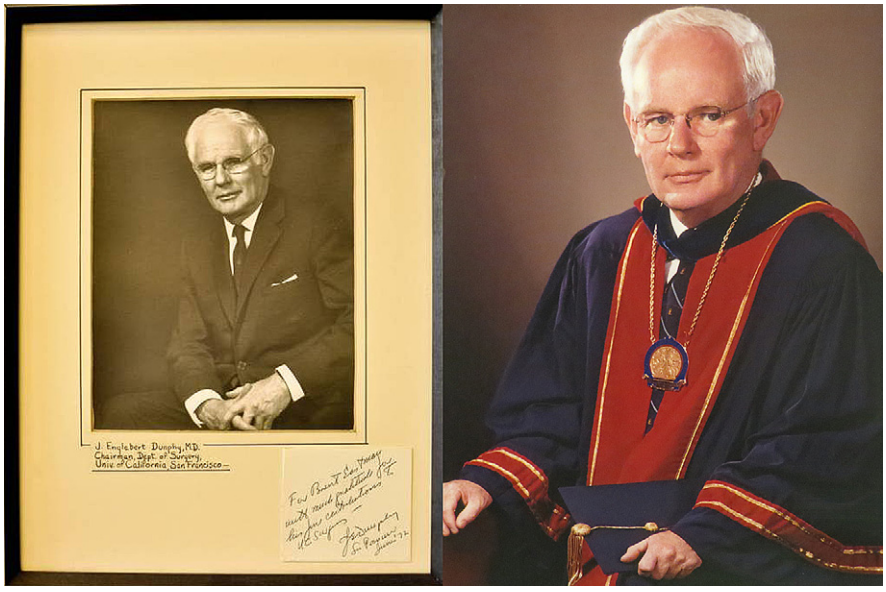

Figure 6. Dr J Englebert Dunphy, President of the American College of Surgeons, 1963 to 1964.

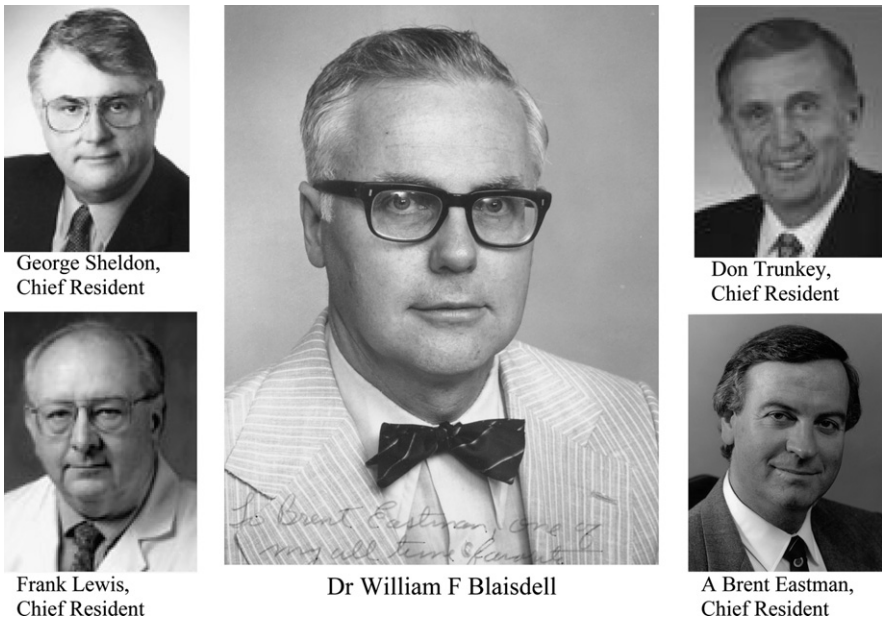

Figure 7. University of California San Francisco, San Francisco General Hospital trauma team, circa 1966 to 1972.

And so it was, at the half-century mark of this College, in 1962, I entered medical school at the University of California, San Francisco, and was then a surgical resident in the program led by Dr J Englebert Dunphy (Fig. 6), who had just completed his term as 44th President of the ACS. Dr Dunphy was an Anglophile and thought it important for me to spend the spring of my senior year in medical school at Guy's Hospital in London. And nearly immediately on my return to University of California, San Francisco, I had my baptism by fire in the Mission Emergency Room of San Francisco General Hospital—one of the first great trauma centers of the United States—under the eye of a visionary man, Dr William Blaisdell (Fig. 7), and with coresidents, Don Trunkey, George Sheldon, and Frank Lewis, all of whom went on to do great things for American surgery. And my life's course and passion were set. The icing on the cake, one might say, was my year in Norwich, England, as surgical registrar under Mr AB Birt, CBE, President of the Association of Surgeons of Great Britain and Ireland, who was so joyful operating in his rubber apron. Among other things, Mr Birt taught me the so-called Gallie repair of inguinal hernia, in which strips of fascia taken from the thigh are used as suturing material. Mr Birt so hoped I'd use this technique in America that he mailed me my own fasciotome and driver on my return home. The technique was named for surgeon W Edward Gallie, a Canadian who was, incidentally, the longest serving President of the ACS in our history, for the war years 1941 to 1946.

I suspect nearly all of you new Fellows have stories about how you chose medicine, and then surgery as a career, and about your mentors. I hope, when things get tough, that you can find a way to dip into that early well of inspiration and admiration, and feel refreshed for the work ahead.

Because there are serious challenges ahead in this new century, the ACS needs young diverse leadership at every level, and you are diverse. It can be a wonderful 2-way street, with you contributing your energy and fresh vision, and the more senior among us offering support and crucial leads as to how things get done. Some of you may know the Confucian proverb, "Tell me and I will forget. Show me and I may remember. Involve me and I will understand." It really is only when you become involved with your College that you will truly understand.

So, what are these challenges that must be confronted now? Four of pressing urgency are (Fig. 8): access, rural surgery, surgical education, and the fact that the world is flat and we must affirm our internationalism.

Figure 8. My presidential calls to action.

One model of health care delivery that addresses all the concerns I am voicing today comes from one of the oldest standing committees in ACS, the Committee on Trauma, founded 1922 by Dr Charles Scudder; and that is the Inclusive Trauma System Model. In trauma systems, *inclusive* means the involvement of all committed providers to care for all injured patients, of which only the most critically injured need transportation to a Level I or II trauma center. The great majority of injured patients can and should be managed by local surgeons who are part of the inclusive system, but patients with life-threatening injuries are transferred smoothly to the level of care with resources necessary to deal with their complex injuries. This model is applicable to other time-sensitive surgical conditions, as well as to medical emergencies such as heart attack and stroke.

ACCESS

The crux of managing surgical care anywhere is the problem of barriers to access, whether for disparity of race or sex; lack of insurance, as for millions of Americans; long wait times or distances; because of weather and terrain in the Dakotas or on the plains of Saskatchewan; or for maldistribution and a shortage of surgeons nearly everywhere in the world. The ACS is committed to a policy of high quality, safe, appropriate, and affordable surgical care. This emphasis on Inspiring Quality: Highest Standards and Better Outcomes has already been a seminal contribution of our Executive Director, Dr David Hoyt. But, as Past President Dr LD Britt has said, "There is no quality without access."

We in the US have new health care legislation, the Affordable Care Act. We, as the ACS, must be involved and speak wisely and forcefully about what works and what does not work for our patients. We must help shape public policy. In political matters we must always advocate for what is best for our patients. When we do that we will never be wrong. Access to optimal care is a universal problem that will require our collective intelligence to solve.

Wherever we work, sustainability is a huge issue. We must focus on the Value Proposition, which is that Value = Quality / Cost, where value is what the patient receives. The surprise in this proposition is that increasing quality decreases cost, as best practice comes into play. Inappropriate variation, that is, waste, is eliminated. One of the best examples of ACS leadership in this area is the robust National Surgical Quality Improvement Program (NSQIP), which has been proven effective in fulfilling this Value Proposition.

RURAL SURGERY

Regarding surgeon shortage and maldistribution, one solution is "regionalization" (not centralization), as in the Inclusive Trauma System Model of getting the right patient to the right place in the right time. Rural communities usually bear the brunt of surgeon shortages and maldistribution. For surgical trainees who are suited to rural life, we must support them, we must provide training that is broad and emphasizes self-reliance, including things like the ACS course on rural surgery; we might include a roster of urban surgeons willing to offer vacation relief, who might then learn what it is to walk in another's moccasins. We also need to provide systems designed to support rural surgeons in caring for their patients, and when needed and requested, to help expedite transfer to a level of care commensurate with the patient's injuries. This will be aided by new technology such as wireless monitoring and video consulting and conferencing for dialogue between rural surgeons and appropriate specialists, which is a 2-way exchange. And remember, already there are more cell phones in the world than toilets or toothbrushes. Remember, too, that an innovation in remote regions of a developing country may well be applicable to rural areas in the First World: essentially doing more with less, being more efficient, working as surgical teams. Here in the US, 2 rural surgeons appeared at the 2012 February meeting of the ACS Board of Regents, at the invitation of Chair Dr J David Richardson. Their call for action resulted in the immediate formation of a new Advisory Council for Rural Surgery, to be chaired by Dr Tyler Hughes of McPherson, KS.

SURGICAL EDUCATION

As wonderfully as the Halsted model worked for training 20th century surgeons, including my generation of the 1960s and 1970s, it does not fit the 21st century reality. It was outdated even before the introduction of the 80-hour workweek in the US in 2003 and the rising uneasiness since, about reduced operative experience, dangers to patient continuity, and a so-called "shift work mindset." And then there is debt, at least in the United States: I finished my surgical training in 1972 with a total debt of $4,000; for today's average US medical graduate, debt now exceeds $100,000 and nearly one-quarter owe $200,000 or more. Meanwhile, young surgeons are seeking a balanced lifestyle while being expected to lead multidisciplinary teams caring for ever more complex surgical disease. Dr Timothy Eberlein addressed this issue in depth 5 months ago at the April 2012 meeting of the American Surgical

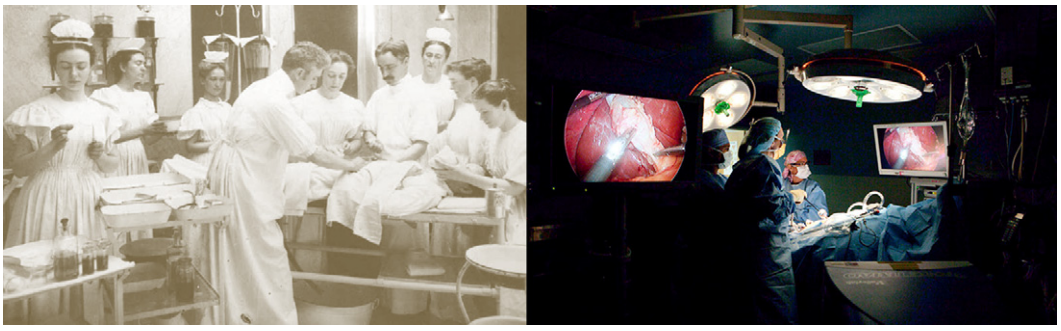

Figure 9. Ode to the joy of surgery—the next 100 years. A triumphant rendition of Beethoven's "The Ode To Joy" played at the end of Dr Eastman's Presidential Address at the American College of Surgeons Convocation ceremony on September 30, 2012. (Photo on left is courtesy of Dr Eastman; photo on the right is courtesy of Mark Dastrup Photography, with permission.)

Association, both in his Presidential Address and with an expert panel. I believe the ACS, including specialty societies, and the American Board of Surgery, American Surgical Association, the Royal College of Physicians and Surgeons of Canada (RSPSC), and all international surgical leaders, should collaborate with one another about recreating surgical education and training for this century. This was the focus of a recent combined meeting of the ACS Board of Regents and Board of Governors on the concept of a new "Transition to Practice" general surgery fellowship, and using innovations such as the sophisticated simulation centers arising around the nation and abroad.

And there is one powerful concept proposed by tonight's recipient of the Distinguished Service Award, my friend Dr George Sheldon, that could address a sheaf of pressing needs including access in time of disaster, and for the chronically underserved; rural surgery, and internationalism; rapid response to new pandemics, and disasters; the idealism that drove most young physicians to medicine in the first place; and even student loan forgiveness. And that is a call for retooling the uniformed service of the United States Public Health Service Commissioned Corps to expand dramatically and to include surgeons along with primary care physicians, in teams, for 2 years of desperately needed service before settling into the rest of their professional lives.

INTERNATIONALISM

The world *is* flat and all these concerns about access, rural surgery, shortages and maldistribution, and surgical education are profoundly international as well. Advanced Trauma Life Support, ATLS, is the most widespread international program of ACS, the largest phalanx of internationalism, with 1.3 million physicians trained in 63 countries since the program began in 1980. Dr Haile Debas has said that trauma is a global endemic, and of course, it was the earliest surgical disease. As first used in Homer's *Iliad*, the Greek word for physician is *iatros* meaning remover of arrows. Much of trauma surgery has been learned in wars over the ages, leading to the great truism that "the only victor in war is medicine." The ACS, through the Committee on Trauma, must address the global endemic in peace and war and disaster. As Dr Debas has also said, "We should have a diplomacy of health." And for everyone here who ever wishes to volunteer as a surgeon anywhere in the world, for any length of time, our College has created the on-line forum, *Operation Giving Back*, which cuts through layers of uncertainty and red tape to match the desire to give with need.

I believe that international collaboration is essential to the future of our profession on this planet. For that reason, I have made a high priority of supporting the excellent work of the ACS International Relations Committee, where I will meet with the presidents of International Surgical Colleges and Societies. We have much to do together.

And finally, I must say that all this urgent and endless need should never make you forget the great privilege you have as a fully qualified surgeon wherever you are in the world. My greatest wish for you, the newest Fellows of the American College of Surgeons, is the joy of a life in surgery that has been mine (Fig. 9).