

Presidential Address:

# THE SURGEON OF THE FUTURE:

Anchoring  
innovation and science  
with  
moral values

by Carlos A. Pellegrini, MD, FACS, FRCS(I)(Hon)

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I believe that the lessons I have learned in my work as a surgeon and my involvement with our College will be useful to some of you as you move into this new era of your life, the one after Fellowship.

**Editor's note:** The following is an edited version of the Presidential Address that Dr. Pellegrini delivered at the American College of Surgeons (ACS) Convocation Ceremony, October 6, during the 2013 Clinical Congress in Washington, DC. In addition to the text below, Dr. Pellegrini presented a short video that centered on the significance of ACS and the meaning of Fellowship. The video is available at [www.facs.org](http://www.facs.org).

I want to offer my heartfelt congratulations to the 1,622 Initiates, now new Fellows of the American College of Surgeons (ACS), and to their families and their friends. I also extend my warm welcome to the new Honorary Fellows, and my sincere thanks to all those of you who chose to join this celebration.

Few events in our lives become permanently etched in our memory. Those events define for a person or for an organization a before and an after in their life cycle. Those are the events that make history. Tonight, we are gathered here to celebrate two such events. For our organization, the American College of Surgeons, it is the celebration of its 100th year. Indeed, on a night like tonight, in the fall of 1913, the College celebrated its first Convocation and admitted 1,065 initiates from Canada and the U.S. and five Honorary Fellows.<sup>1</sup> For you, the new Fellows, it is the celebration of an incredible achievement: not only did you manage to get through college, medical school, residency training, and board certification, but you also became sufficiently established in your communities to be recognized by your peers and elected to Fellowship in this College.

Tonight, I would like to highlight the significance of this event for both the College and the Fellows.

I hope you all feel as proud as I felt in 1982 when I was initiated as a Fellow of our College. I also hope that our organization's shining past will illuminate the path forward for all of us.

Now let me turn to you, the new Fellows of our College. You are exceptional, and you are diverse. You are exceptional in that this group totaling 1,622 Initiates is one of the largest ever admitted to Fellowship. You are diverse in age, gender, interests, and origins. As for age, you span generations X, Y, and the Baby Boom, and although the great majority of you are younger than 50 years of age, we welcome 24 new Fellows who are older than 60. As for gender, 321 of you are women—

the largest number ever admitted to the College in one group. As for your interests, you represent 14 specialties of surgery. As for your country of origin, 1,276 of you are from the U.S. and Canada, and 346 come from 55 countries around the world. To wit: 110 from Latin America, 111 from Asia, 72 from the Middle East, 37 from Europe, four from Australia and New Zealand, and 12 from Africa.

### The future of surgery and surgeons

Now I want to talk about your future. I do not pretend to have a crystal ball, and I would much prefer to have a conversation with you rather than give a lecture, but due to the physical impossibilities of the former, we will have to settle for the latter. I believe that the lessons I have learned in my work as a surgeon and my involvement with our College will be useful to some of you as you move into this new era of your life, the one after Fellowship. There are three general aspects of your future I would like to touch upon. First, I want to describe some of the major forces affecting the practice of surgery in the course of the next decade or two. Second, I want to convince you that you can shape your future, you can craft it, and you can define it. Third, I want to suggest to you that this College, your College, provides you not only with the best and most comprehensive platform to leverage your quest in shaping your future, but also provides you with a set of values that can serve as your moral compass. To accomplish this task I will reflect on the past as needed, I will examine some aspects of our current practice, and, when discussing the future, I will describe it as I wish it to be: aligned with our noble mission—a mission that has not changed during the course of our history and I believe should not change in the next 100 years.

### Major forces affecting surgery

Some significant forces are changing the way we practice surgery in a manner that I believe will significantly impact the way you will practice in the next decade. I have chosen three as examples that will affect all of you equally, regardless of country of origin or site of practice. These external influences reflect for the most part advances in medicine, and I am not here to criticize



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them, but rather to describe them. Surgeons need to know and understand them to better position themselves and the profession, and although they may pose challenges, I am an optimist and to paraphrase Winston Churchill, every challenge also represents a great opportunity.

### **Innovation and “the white waters” phenomenon**

The introduction and adoption of new ideas, techniques, and devices has resulted in monumental progress in medicine and surgery. For many years, however, the pace at which innovation occurred allowed for intervals of time to test and validate the new idea and, when useful, to design educational and training methods that ensured its safe adoption. In some ways it resembled a trip down a river with rapids interspersed with waters of relative tranquility in which to recover. The pace of change has increased substantially over the last few years, and I predict that this pace will only accelerate in the future: the equivalent of navigating permanently in white waters.

However, it is not change, but the nature and pace of it that poses a significant challenge for the surgeon of the future. On the one hand, many innovations end up in failure, as they do not survive the test of time. On the other hand, failure to seize an opportunity can have catastrophic effects on a surgeon’s practice. Thus, decisions need to be made fast, and they need to be right. ACS Regent Gerry Fried, MD, FACS, FRCS(C), suggests that, when faced with the dilemma of whether to adopt a new idea or technique, the surgeon should consider four basic questions:

- Does this innovation fulfill a clinical need?
- Does it add value to the existing options?
- Is it financially viable?
- Can it be adopted by the average surgeon with relative ease?<sup>2</sup>

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ning the horizon for new ideas and developing appropriate programs to train Fellows. The meeting you are about to attend this week with its many offerings is one example. The network of Accredited Educational Institutes that your College has created and which now extends beyond the U.S. and Canada to include Europe, Asia, and the Middle East is another example of the rich platform you can use to advance into your future. Adapting to rapid change and learning how to choose the right path is as imperative to your survival and growth as avoiding boulders and finding the right currents is for those navigating white waters.

### Blurring of the boundaries

As the specialties of medicine developed during the 20th century, they did so within well-established boundaries. For example, when I started the practice of surgery, we all knew that there was a clear delineation between what I did as a surgeon—primarily open operations—and what most of the medical specialists did—primarily diagnostic and noninvasive therapy. However, in the latter part of the last century, as innovation led to the development of new ideas, methods, and devices, the boundaries between specialties started to blur. The treatment of common bile duct stones, once the domain of the general surgeon, became part of the practice of a gastroenterologist; the treatment of intra-abdominal abscesses or the placement of central venous lines, done only by surgeons in the past, was now in the hands of interventional radiologists.

In some of these situations, the loss to surgery was caused by our failure to seize new opportunities. Many surgeons felt that retreating to the operating room and continuing to use the tools of the past was better than retraining and embracing the future. These boundaries continue to fade away, and my prediction is that the process will accelerate in the future. We see signs of it when we look at who cares for our complex patients in the intensive care units today or who uses the new endoscopic techniques to treat incipient mucosal cancers of the gastrointestinal tract. I believe that surgeons should think of themselves as uniquely qualified to perform interventions—interventions that may be done by the open approach, or through endoscopes, or through percutaneous approaches, or through natural orifices.

Surgeons, in essence, should become what Thomas R. Russell, MD, FACS, former Executive Director of our College, called “interventional biologists.”

And I am happy to say that we have made progress in this arena. General surgeons are continuing to develop minimally invasive approaches. More recently, vascular surgery has transformed from a traditional open approach to image-guided endovascular approaches. These changes have had a major impact on the survival of patients with vascular disease. We must continue with this strategy. As I see it, the intelligent surgeon of the future will be someone who embraces the management of diseases, not just the use of techniques, and will also be someone who becomes knowledgeable of, and masters all, diagnostic and therapeutic aspects of his or her specialty beyond traditional boundaries.

### Quality, cost, and accountability

The third major force that will impact your future practice is society’s increased concern with improving the quality while controlling the costs of care. Given that the practice of surgery involves greater risk than most other specialties, preserving and improving safety and being able to measure quality in a reliable way will continue to be an essential part of practice. Furthermore, since we do use substantial resources to fulfill the needs of our patients, our institutions and our society at large will put pressure on us to be accountable for these expenditures.

Michael Porter has defined “value” as the ratio between outcomes and costs. In his book, *Redefining Health Care*, he urges us to focus on outcomes and to measure them “systematically and comprehensibly.”<sup>3</sup> As we do so, I predict that the measurement of outcomes will switch from the current focus on objective outcomes as determined by the profession to a focus on outcomes as determined by patients and employers. For example, when undergoing spine surgery for back pain, it will not just be a demonstration of fusion on X rays, but the relief of pain and the ability to return to work that will matter; when undergoing anti-reflux surgery it will not just be the normalization of esophageal pH, but the complete relief of heartburn as perceived by the patient. This is the “new” accountability



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of our craft: accountability for quality, for safety, for costs, and for outcomes.

Delivery of this type of care cannot be done by individuals acting alone; it requires the development of teams, high-performance teams. These teams require leadership. Not the authoritarian leadership of the past but the kind of leadership that fosters exceptional communication, mutual respect and support, and the development of the best and most straightforward ways to achieve the goals of the mission: improving the health of our patients. Leadership is an area that needs our direct involvement, and the smart surgeon of the future will devote a substantial portion of his or her time to the study of qualities of effective leaders, to the development of emotional intelligence, and to the improvement of so-called non-technical skills. Your College is deeply involved in these areas and has developed the infrastructure to support it. I encourage you to get involved, not only because it will help your future, but because it is the right thing to do for our patients and our society.

### Shaping your future

It is my hypothesis that, to a great extent, each of us has the opportunity to create the future. True, there are external influences, some of which I described earlier, over which we may not have total control, but our direct involvement will help to modulate those forces and change the outcome they would otherwise produce. Of course, there are pessimists who will tell you that the sky is falling. They usually start by pointing out how much the world has changed, how perfect things used to be, and how little reward you are likely to get for the many hours you will be working. Furthermore, they will suggest that there is nothing you can do to change things. They will portray us surgeons as victims. I ask you, using the words of former U.S. Secretary of State and retired U.S. Army General Colin Powell, to “reject the easy path to victimhood.”<sup>24</sup> It is unappealing to the rest of society and leads nowhere.

Tonight I am here to tell you that the path you have chosen, which is the same I chose, is a most rewarding one and that, given the chance, I would do it all over again. Indeed, I feel extremely privileged for having been given the opportunity to touch so many lives,



for having my patients entrust me with their most valuable asset: their health. And I am here to tell you that there is not enough money in the world to provide that satisfaction, the satisfaction of helping someone in need. I am also here to tell you that the future is not predetermined, that your future can be shaped and that each of you can make it happen. “What you do makes a difference,” as Jane Goodall says. “...You have to decide what kind of difference you want to make.”<sup>5</sup> You may not be able to achieve everything you want as you work to define the kind of health care system that will best fit the needs of your nations, but you should set for yourselves the highest goals and travel in that direction for as far and as long as you can. That is the only way to make a difference, one little bit at a time.

So, next time you see something that needs fixing, get involved rather than blame the system. Follow the advice of the famous proverb, “It is better to light one candle than to curse darkness.” Then exercise your leadership, recruit others to light more candles, and sooner than you know it you will have illuminated a path for a better future.

### Your College, your platform, your moral compass

I hope that throughout my talk tonight I have shown you a few of the many areas in which your College, under the excellent leadership of its Executive Director David B. Hoyt, MD, FACS, has developed the infrastructure to help you deal with the forces of change. Whether it is through the Division of Education filling the gap between your practice and the current state of knowledge; or through the Division of Research and Optimal Patient Care with its measurements of quality, safety, and costs; or through the Division of Advocacy and Health Policy efforts to help modulate the implementation of policy that will influence the provision of health care; or through the Division of Member Services with its focus on you, your chapters, your projects—the College provides you with the right platform to exercise your leadership. My call to action today is for you to get involved and to get involved now, at this stage of your lives, to help you and your patients by defining an ideal future. As you travel this

path you will need a moral compass, something that you can use to guide your actions and to help you distinguish right from wrong.

The American College of Surgeons staff has led by example this last year when through a thoughtful and well-defined process that lasted six months, they identified a set of values that they have made their own. These values I believe reflect not only the ideas of the great staff of our College, but I hope they also reflect their observation of the values expressed by the many surgeons with whom they have worked so closely. As I have had an opportunity to examine them I realize that they speak for me, as a surgeon, as much as they speak for our College staff. I offer the five values to you tonight:

- **Professionalism:** Professionals exemplify the highest standards of honesty, responsibility, respect, and accountability. The importance of professionalism to us surgeons was highlighted by LaMar S. McGinnis, Jr., MD, FACS, in his Presidential Address when he pointed out that it is “what sustains us, embodies us, invigorates us, and carries us onward.”<sup>6</sup> To me, personally, professionalism is about caring. It is, as others before have eloquently put it, at the heart of medicine for “patients will not care how much you know until they know how much you care.”
- **Excellence:** Our staff believes excellence represents an aspirational goal—the goal to always exceed internal and external standards and the expectations of others. I can think of very few values that associate closer with what surgeons do every day than excellence. The relentless pursuit of perfection in everything we do should be a hallmark of a surgeon.
- **Innovation:** The staff defined innovation as the pursuit of creative and forward-thinking improvements to transform what we do for the better. We discussed earlier how influential the concept of innovation is for your future.
- **Introspection:** Through personal reflection, introspection allows human beings to explore their mind and their soul, to define the gaps that will motivate them to seek continuous self-improvement through professional development, self-assessment, and awareness.



14 | • **Inclusion:** The active engagement of all appropriate individuals and entities to collaboratively harness collective intelligence is the hallmark of inclusion. The value of inclusion in today's world cannot be overemphasized. Just respecting our differences with others as a matter of moral standards is not enough. We must embrace them, we must celebrate them, and we must cherish them, as they are the vehicle to collective intelligence and creativity. I encourage you to do that, but at the same time I ask you not to forget who you are and where you came from. Inclusiveness is not a matter of letting yourself disappear into a melting pot. You must also preserve and cherish what is different about you, your accent, your beliefs, your ways. Respecting and embracing others can best be done when you have respect for yourself and your values. It is time for the ACS to embrace other organizations with like-minded values, for physicians to learn how to work together with all other health care professionals in high-performance teams. It is only by gathering the minds and the energy of all involved that we shall succeed as a profession and as a society.

These five values can be summarized for those of you with a mathematical mind in the formula  $P + E + I^3$ .

Every recent ACS President has had a theme for his or her year. Mine is the "The Surgeon of the Future: Anchoring Innovation and Science with Moral Values," and I offer to you humbly the values I described to be used as your moral compass.

Ladies and gentlemen, as I reach the end of my remarks I want to congratulate you again on achieving Fellowship in this great organization. You can now proudly use the letters "FACS" after your name, indicating that you are a Fellow of the American College of Surgeons or, as ACS Past-President Gerald Healy, MD, FACS, so nicely put it, you are "Forever A Caring Surgeon."<sup>7</sup>

There are many challenges ahead, but I hope I have convinced you that we can face them and succeed. We are all in this together. You should trust what is inside of you. I trust you, and, as Christopher Robin said to Winnie the Pooh, "You must always remember: you are braver than you believe, stronger than you seem, and smarter than you think." You, my friends, have the power to change the world. ♦

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