Full text of Dr. David Berger’s Presidential Address to the New England Surgical Society, 2015

I would like to thank the New England Surgical Society and its members for the privilege of being your president. It is an honor to stand here and be included on the list of past presidents and officers of this society many of whom are pioneers and leaders in the field of surgery. I also have to thank my family for being so supportive and putting up with me every time I am late or miss an event. In addition, I should thank all of the surgeons and staff at MGH. The number of people it takes to run a practice and operate is astonishing and everyone invariably is integral in making the day flow properly.

I have said many times in the course of the last 20 years that I have been extremely lucky. I am lucky to have met my wife. I am lucky to have two healthy children and I am lucky to have had the education that I received. I am even luckier that I became a surgeon. I never thought that I would become a physician much less a surgeon. It is unbelievable when I look back and think of the various isolated and ridiculous decisions that changed the course of my life, and ultimately led me to surgery. I loved baseball. The problem was that I really couldn’t throw. People can either throw a baseball or not. I was perfectly adequate in Little League on the small diamond. I was a catcher and when I moved up to play on the big diamond, I couldn’t make the throw to second without an arc. I was passable but there was no way I was going to ever really play baseball. I needed a new spring sport. I decided try out for the crew team because I had a friend who had rowed. For some unknown reason, it turned out that I was pretty good at it. It is a sport that requires controlled repetition under extreme duress at high intensity. It should have been my first inkling that I was destined to become a surgeon. Of course, that was the furthest thing from my mind. All I really wanted to do was row in college. So, I went to college to row. I spent four years training and racing. It took up a lot of my time. Schoolwork had to get done so that I could train. Deadlines needed to be set and upheld. Once again, I should have known that the lessons being taught to me were directly applicable to becoming a surgeon, however, I still had no real idea what I wanted to do when I was done rowing. For that matter, I did not see rowing ever really ending. It is amazing how a 20-year-old brain works. I needed a plan to continue rowing after college and I thought staying in school was the best way to achieve that so I decided to go to Medical School. I wish I could tell you that I wanted to be a surgeon from the time I was 10 but it isn’t true. I chose my medical school so I could be near the coach I wanted to train with. I spent hours in my first two years of medical school rowing. Ultimately, it became apparent that I was not tall enough or strong enough and my rowing career came to a rather abrupt end right at the beginning of my clinical rotations. If you boil it down, I ended up
a surgeon because I couldn’t throw out someone trying to steal second and I am only an inch over 6 feet tall. Life is a combination of hard work with a heavy dose of luck.

When I began my clinical clerkships in medical school, I had no idea what I was getting myself into. My first rotation was in Pediatrics at Children’s Hospital in Philadelphia. I loved it. I came home every day and told my wife with great excitement what I had seen and what we had discussed. I still remember the case of the young girl with Takayasu’s Disease almost 30 years after I saw her. I was convinced that I wanted to become a pediatrician. The rotation ended and I began my medicine rotation. Once again, I was completely enamored and found myself coming home and in vivid detail recounting what I had seen to my wife, who did her best trying to hear me out. More rotations followed and after each, I was convinced that that was the specialty for me. I finally spent a month in Psychiatry and I was very pleased to have one off the list. Interestingly enough, there are many residents these days that tell me they chose between surgery and psychiatry. It seems like such an unlikely pairing. Maybe it says something about us. I then stumbled into Anesthesia. I thought it was great. I loved the OR, the physiology, and the pharmacology. I thought certainly this one was for me, although I did find myself looking over the screen more than staying behind it. My rotation schedule was pre-determined and the last rotation of my third year was my surgical core. I came home very late that first night and told my wife that I had finally found my home. She listened, nodded appropriately, rolled over and went back to sleep. I tried to explain and she would have none of it. She had heard it all before. I went back the next morning at 4:00 am and came back home at 8:00 pm. I carried the suture removal kits and dressings, I went to the lab and got the results, I grabbed the vital signs and did whatever unpalatable job the team would let me do. I watched the senior resident run morning rounds with efficiency and sometimes a bit of brutality. The junior most residents passing on information and the senior resident examining the patient and making the plan for the day, the hierarchy clear and apparent. I went to the OR and stood for operation after operation. I watched and listened to the attending surgeon operate and teach. I listened to the residents tell stories of surgeons and tales of past operations. I was not just enamored with surgery but I was hooked by the system itself. It took less than a day for the world of surgery to suck me in and by the end of a week there was no doubt in my mind that I would become a surgeon.

What makes a career in surgery so special? Why with all the changes in medicine do I still look forward to going into the hospital each day? We are working harder and longer. We have less autonomy and face ever-increasing documentation requirements. We are spending more time doing non-medical work. Why would I tell anyone who asks that I am an extremely happy as a surgeon and why would I encourage students with even the faintest interest to become one as well? I think the answer is not all that complicated. It is a privilege to be a surgeon. I couldn’t
ask for a better career. I know many people who may work fewer hours than I do or make more than I do but who are never happy working. Their job is a means to an end. There are very few people who can say they look forward to going to work. I truly love operating and by chance ended up at an incredible hospital to practice surgery. I have plenty to do, great residents to work with and teach and phenomenal colleagues. We are in the business of helping people. There are few days, if any, which go by where as a surgeon you are not making someone’s life better. We don’t always think about it, but several times a day a surgeon is involved in one of the most pivotal moments in another person’s life. There are not many days more important than having a cancer removed or your heart fixed. Family members are sitting and waiting for a telephone call the outcome of which can change their lives forever. However, it isn’t always good news. We learn to discount that so the lows don’t overwhelm us. At the end of the day after telling a patient and their family that we removed the tumor and all looks good, we have to remember to bring home a gallon of milk or more importantly an anniversary or a birthday. The transition from the world of surgery to the routine details of daily life occurs every night. In exchange, however, we as surgeons are extremely lucky to receive a true thank you or a smile that has no pretense. That, I think, is our greatest privilege. The other day, I received an e-mail with a photo from a 42-year-old man who presented to me with metastatic colon cancer. The patient’s oncologist’s first name was also Dave. The caption above the picture read “no two Dave’s no snowy grouper.” The photo was of him and his sons on a boat holding up a large grouper almost three years to the day after I removed the right lobe of his liver and his right colon. It is easy to think of his case as just another case, but to him and his family it is significantly more than that. A few weeks ago, I was with a patient whom I thought had gone through a pretty tough course. He had a rectal tumor. He received neo-adjuvant treatment and then went to the OR. I removed the tumor and gave him a temporary ileostomy. This was complicated by a leak at the low rectal anastomosis. A drain was placed and he got better but of course, the anastomosis stricture and needed dilation. He completed his subsequent chemotherapy and then when I took his ileostomy down, he developed a post-operative ileus. I thought that this fellow could not catch a break. On his last visit with me, I apologized to him. He asked me what I was apologizing for. I told him I thought he had had a tough go and I was sorry his course was not smoother. He looked me in the eye and to my surprise, he said that the day he met me was the greatest day in his life. There is an amazing amount of trust given to a surgeon when a person lies down and allows another to operate on them. We don’t think about it as often as we should. We shouldn’t take for granted the confidence that is bestowed upon us by our patients.

How does one become a fellow in the profession of surgery? How is the knowledge, the deportment, the dedication passed from one to the next? Each year new medical students enter residences and each year a new group of surgeons goes into practice. What transforms
one to another? How does this process unfold? What are the important tenants that are integral for each new surgeon to receive? How does residency create a surgeon?

Surgical residency is an experience unlike any other. It was fantastic, it was several of the best years of my life and I would never want to do it again. It is where the art of surgery is passed on from one generation to the next. There are two major milestones in medical training and they occur with the tick of the clock. One day you are a medical student and cannot write orders or function independently, the next day you are a doctor. One day you are a resident who cannot function without supervision and the next you are an attending. There is no other way than a moment for those changes to happen from one day to the next but when they occur is it startling. The beginning of residency is the beginning of that process. The first day of orientation where for some reason there is always a free lunch and all seems rosy. We had great lunches for the first three days of orientation and did not see them again until the applicant interview days 6 months later. There is the first day on the wards when you feel completely inept and wonder how you are possibly going to survive the night. Then of course, there is your first case in the OR. There was another student from my medical school class who was an intern with me. Our residence began on July 1st, which happened to be a Sunday, he started on the anesthesia rotation and I started on a surgical ward rotation. Monday morning, July 2nd, I was assigned to an inguinal hernia repair and he was the anesthesia resident in the room. He and I were in the OR for the first time as MDs. As the operation concluded, I found myself closing the skin and he was above the ether screen monitoring the patient. There was a moment where we looked at each other and laughed. He was giving anesthesia and I was operating when 48 hours before we could only essentially observe. What a difference two days on the calendar meant. Our knowledge base or skill set had not changed but the odyssey of becoming a surgeon had begun.

The process of morphing from a doctor into a surgeon is not in any way easy but it is one of the most gratifying achievements I can imagine. The path has many ups and downs. It is frustrating and extremely satisfying. It is flat out tiring. There is a vast amount of knowledge, which every resident must simply obtain, and master, anatomy, pathophysiology, knot tying skills and basics such as the names of instruments and procedures. These have been constants for a century or more and the surgical community as a whole is doing a significantly better and safer job of teaching these skill sets. Computer based training models and simulators as well as animal labs have replaced the days of see one, do one, and teach one. Residents are getting a chance to learn and practice outside of an actual operating room and not inside a human being. They are coming to the OR better prepared and hopefully, with the rudimentary skills already ingrained. What a significant improvement over my time when I went home and sewed two pieces of Manicotti to each other over and over again. While simulations still appear rudimentary, they
are improving yearly and any method that allows a resident to have a better base prior to that
day in the OR when that particular skill set is needed is great leap forward. Surgical groups such
as SAGES have created programs such as the FLS course which teaches basic laparoscopic skills
which a resident learns to master. This and other courses and curricula are taught in trainers or
labs allowing a resident to improve their hands and work out the kinks before the skills are used
in an OR. This process is not limited to technical work. There are multiple resources available
which detail the basic knowledge base a resident must acquire. The SCORE curriculum provides
an excellent and detailed outline of the basic material for residents. There is no question that
every one of these teaching tools is a valuable and significant improvement over the old days,
my days and the days of other grey haired or no-haired surgeons.

However, it is the tradition of surgery that truly makes the surgeon. It is the stories, the
practice, the diligence of the senior surgeons, which truly form, and shape the next generation.
That is what takes the basic skills and turns them into what is necessary to be a practicing
surgeon, the surgeon who takes pride in their actions, and the surgeon who teaches and
perpetuates the art. This learning takes places in the halls of the hospital. It takes place in the
OR, in the resident call room and at evening meal. It is also passed on in surgical lore, most of
which is based in fact but occasional told in an exaggerated tale to illustrate a point. It is with
the amalgamation of all these sources where surgery is truly mastered. It is surgical finishing
school and it begins on the first day of residency and never really ends.

Early in my internship, I went to the OR with a very senior and technically superior surgeon. We
had three inguinal hernias on the list that day. I watched him fix the first two. His hands moved
smoothly and confidently from step to step until we were done. He made it look very easy. I
thought to myself I could do this without any problem. He asked me if I had paid attention and
told me that he would take me through the third hernia repair. True to his word, I held the knife
and set the stitches. The case went perfectly. I was convinced that I had actually done surgery. I
thought I knew how to fix a hernia and that I most likely could do one on my own. After all, I
had three months under my belt, I had seen or done 10 or so hernias and based on what I had
just done, I knew what I was doing. The next day, I went to the OR with a significantly less
experienced surgeon to perform a hernia repair. I was excited because I figured the surgeon
would allow me to do more of the procedure. I should have realized the trouble I was in when I
saw the case was booked for three hours. Nevertheless, I was confident that I knew what I was
doing. The patient had an average sized inguinal hernia. After two hours of concentrated effort,
the surgeon declared the hernia fixed. I was relieved because what had been so easy the day
before seemed extremely difficult today. What I had thought was so clear the day before was
impossible to see the next day. I placed my finger in to feel the reinforced floor of the canal and
to my surprise, my finger easily dropped through into the retroperitoneum. I looked across the
table with my finger still in the hole in the floor of the canal and with a fair amount of confidence the surgeon said, “Never fear the coach is here.” I learned a lot that day.

In the old days and I find it funny for me to be referring to the old days in front of many of you, we took call every other night. I am not advocating for a return to that system but there was one aspect of it, which was certainly invaluable. Most nights at 9:00 pm, half of the surgical residency would sit down and eat dinner. While I will not extoll the virtues of eating Mac and Cheese with Tabasco sauce 4 nights a week, 48 weeks a year, the knowledge that was passed on and the camaraderie which was created was as important as any didactic lesson. As integral as it is to learn directly from the esteemed attending surgeon, I have always felt that some of the most important learning occurs when people who are close to each other in age and stage teach each other or learn together. The seniors usually sat at one end of a very long table and the interns at the other. The conversation included many things but it invariably turned back to stories about the attending surgeons. The surgeons were usually referenced by their initials. The stories were always the same and they were repeated over and over. When I was a junior resident and I sat in the middle of the table, I listened to them again and then, when I was a senior and held court, I told them with my own flare. While the stories for the most part were funny, they revealed many insights into becoming a surgeon or illustrated the quirks that highly trained surgeons use to repeat complicated procedures in a simple way. Simply by repetition, I was forced to learn. I can still repeat many of them today. In addition to the stories, one-liners were often quoted. This ranged from more global ones such as “a chance to cut is a chance to cure” to the more important local ones from attendings within the hospital such as “you can compromise on love but you can never compromise on exposure.” These became ingrained in our mind. While seemingly silly, they each illustrated a separate and distinct surgical principle. We did not realize what we were learning at the time. I have not sat down to a 9 o’clock meal in 20 years, but I am certain the stories are pretty much the same while the initials have changed. In fact, I would guess several of them now begin with DLB or you wouldn’t believe what Berger said today at conference. I would never have thought that I would be able to quote my own sayings but I can easily. Lines which are seemingly meaningless such as “Who is the camera” or “If I can’t see, you can’t see” come out of my mouth easily and often, underscored by their appearances in the surgical change show. However, lines that are vitally important are remembered in the same way such as “You must perform every operation as close to perfectly as you can because even with that you will have complications” or “the more you reduce your variability, the better your outcomes.” These lines don’t appear in a change show but hopefully, they find their way into the makeup of a surgeon.

There are many times in a residency where knowledge is conveyed without words. Lessons are taught through assimilation. It is important for a resident to keep their eyes and ears open and
you never know where the lesson will come from. There are mundane but important lessons such as the attending that rounds everyday and does a physical exam, a simple but at times, lost practice in the modern era. There are technical lessons such as observing how an experienced surgeon uses fixed retraction to improve visualization or trying to figure out why one surgeon can use the same retractor and make the field look so much better than another. There are lessons taught through parables. I was taking care of a patient with gallstone pancreatitis. The patient was very ill on the first day but started to slowly improve after a few days. I went to my attending and asked if I should list the patient for surgery to remove the gallbladder. He said, “If there is a storm that causes a tree to fall through the roof of your house, do you fix the roof or chop down the forest?” Learning when to operate is as important as learning how to operate. However, the most important lessons, usually come under times of duress. I was a third year resident on the cardiac service. For some unknown reason, I was assigned to first assist the chief of the service perform a redo CABG on a Saudi Prince. I know there are many Saudi princes but the patient was a Saudi prince. I also know there are many Cardiac Chiefs but this one had his own special flare. I knew because I had seen him in action and heard all the stories at 9 o’clock meal. I prepped the patient without difficulty and the case began well enough. He calmly split the sternum and sawed directly through the LIMA graft. There was a bit of pulsatile blood and we looked up at the EKG, which was enlarged directly over the ether screen to see nicely elevated ST segments. One could call them tombstones. I sat back and waited for the explosion trying to figure out how this could be blamed on me. Instead, he became completely calm and relaxed. He let them know what he had done in a level voice. As people in the room started to get agitated, he became calmer. He methodically moved and asked for what he needed in a slow and deliberate fashion. I thought at times I heard him quietly humming. He quickly got on pump and ultimately; it was as if nothing had happened. I learned one of the most important lessons that I have ever learned from one of the surgeons that I feared the most. The behavior of the surgeon in a difficult time in an OR dictates the behavior of every one else in the room. If there is a sense that you can not solve the problem because you are losing your cool, then all the people helping you will lose their cool as well. It is a lesson that I teach and use to this day.

The most important lessons of all are within us. We teach ourselves. Residency has an incredible number of ups and downs. There unfortunately are many times when a resident feels like they could have done better. I vividly remember lying in bed in a call room looking up at the ceiling and admonishing myself for what I had or had not done. I would find myself running through a scenario or event over and over again in my head. How many times did I go home and need to relate something that happened so I could get it out of my head? How many times was I embarrassed because of information that I did not have or tasks that I did not complete. Most people are not born with the attention to detail that is needed to become a surgeon. It is
an acquired trait. It is a result of every senior resident, every attending and ultimately, the responsibility, which we put on ourselves. However, there are more personal lessons we also, never forget. I was the surgical senior resident in the Emergency room on one of many nights. A 22-year-old had been stabbed on the street waiting for a bus. The wound was in the left chest. He had lost his vitals signs 5 minutes prior to arrival and the EMTs were doing CPR. I cracked his chest, released the tamponade and stuck a Foley through the hole in his left ventricle. He never regained a pulse. I couldn’t stop thinking that if I had done it faster or better I could have saved him. It turned out he was a foreign graduate student at a local university. I had to call his parents and let them know what had happened. I wasn’t much older than him. It took me a long time to recover from that phone call and it has not made it any easier to make calls such as that one or explain to a family that things did not work out as well as I had hoped.

Ultimately, that day comes when a resident becomes a surgeon. The time being as artificial as the day one switches from student to doctor. The memory of that first case as an attending is as clear as the memory of the first case as a resident. I remember going home after my first case and thinking about all the knots that could untie or the steps that I could have done better, convinced that I would have to come back and re-operate at two in the morning. However, learning does not stop when we transition to be attendings. I had a particularly difficult case, which came to me within my first few months. I needed some advice and I asked one of the wise surgeons in the hospital what I should do. The surgeon listened to me tell him the problem and he said without much fanfare, that I should do a Panatazzi procedure. I said thank you and walked away having no idea what a Panatazzi operation was. I could not believe that I had finished my training and did not know what the obvious solution was to this problem. I went to several esteemed texts and tried to find the Panatazzi operation. It was nowhere to be found. I really did not want to go back and ask what the Panatazzi operation was, as that would reveal more of my ineptitude. I went back to my office a bit frustrated. I sat down and on my desk was an operative report from 1974. I read through the report and it detailed the exact operation, which I was going to do the next day. The patient’s name was Panatazzi. I still have the op note.

Surgery becomes the pursuit of perfection. The closer to the perfect operation we can perform, the better our patients will do. The more we reduce variability, the better the outcomes. Recently, I spent some time teaching third-year residents how to do a hand sewn anastomosis in the lab using animal intestine. The first question I asked was how many hand-sewn versus stapled anastomosis the residents had seen. I think all of us know the answer to that question. I thought to myself that we are letting the residents down by not doing more hand-sewn anastomoses but I know that is not true. A stapled anastomosis is more uniform than any of us can sew. I cannot repeat the precision of a stapled anastomosis consistently. I am not much of a golfer but like most of us, I watched Tiger Woods dominate the professional circuit.
He maintained steely focus. His only foe in the end was himself in his pursuit of perfection. He is not that different than us. The best surgeons repeat their craft with ease. They maintain their focus under duress. I have a patient that I have known for about 10 years. He originally came to me with a sarcoma extending from the left lobe of his liver, which was compressing his porta. He had biliary obstruction and portal hypertension from external compression of the portal vein. I removed the tumor with the left lobe of his liver. He had a small recurrence, which I removed 3 years later. He had radiation to the bed of the recurrence. Over the last few years, he developed another recurrence. I finally took him to the operating room a few weeks ago. I removed the recurrences but I could not stop the bleeding from the liver bed. The more I tried to stop it, the worse it became. In mobilizing the liver I tore the vena cava. I fixed the vena cava and packed the RUQ. I had great help not only from nursing and anesthesia but also from a colleague who walked in without being asked. The patient went up to the unit packed with an open abdomen hemodynamically stable and believe it or not making urine. Nevertheless, he was in his upper 70’s. I was convinced I had lost him. I went to face his wife. I told her his was critically ill and I was not certain he would make it and I cried with her. I went back to my office and put my head on my desk. I called my wife and told her what had happened. During that time, the room was turned over and they paged me. I went back to the OR and did the next two operations I had scheduled. They could have not gone any smoother. By some miracle, he only required one unit over night and I took him back to the OR, removed the packs and closed his abdomen two days later. He will need to recover his strength but he has left the hospital. I will still be able to talk to him.

Surgery is an incredible field. It is steeped in lore but constantly evolving. We stick to old principles but are forced to re-examine them constantly and abandon them occasionally. The process of learning the art of surgery and evolving into a surgeon is arduous and at times painful but extremely rewarding. It is the greatest apprenticeship of all. We are lucky to be a part of it. We as surgeons have the highest privilege, that of operating on another human being. However, we are only as good as our last operation and usually are only feeling as well as our sickest patient. Surgery is a tradition unlike any other.