



# 2021 ASE presidential address energizing surgical education: the pivotal role of the ASE

Daniel J. Scott<sup>1</sup>

Received: 7 February 2022 / Revised: 7 February 2022 / Accepted: 8 February 2022  
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**Keywords** Association for Surgical Education · Surgical education · Mentorship · Diversity · Equity · Inclusion

## Energizing surgical education

To energize means to “give vitality and enthusiasm to” [1], and I propose that the Association for Surgical Education (ASE) does exactly that for surgical education. Two years ago, we started having annual Executive Committee retreats. During one of those meetings, in discussing several projects and initiatives, someone remarked “the ASE is energizing surgical education.” Hence, this is the theme for this year’s meeting. As I reflect on the rich history of our robust 41-year-old organization, it is apparent that the ASE has played a pivotal role in surgical education. Hence, this is the title of my address.

Indeed, the ASE enhances surgical education by welcoming people into our community, developing individuals as educators, and fostering scientific discovery in surgical education. During today’s *Laycock Tribute Session*, we heard how education research became a core part of the ASE mission early in its evolution. The ASE championed expertise in teaching and education scholarship as important areas of professional achievement at a time when these areas were not viewed as acceptable for academic promotion [2]. Since that time, the ASE has made an enduring impact on the landscape of surgical education in countless ways. The original concepts which established the ASE remain pervasive; the current ASE Mission is, “Lead innovation, scholarship, and professional development in surgical education,” and its values are, “excellence, inclusivity, collaboration, innovation,

and collegiality” [3]. Today, the ASE is a thriving organization that is embracing growth and sponsoring meaningful initiatives, while prioritizing diversity, equity, and inclusion (DEI).

## Why is the ASE special?

The ASE is a very special organization for several reasons. Several concepts were well captured by David Rogers (2010 ASE President), who wrote:

“I have a distinct recollection of the first Association for Surgical Education meeting that I attended. I was startled by the passion that everyone had for surgical education. I was also surprised that individuals who had already made notable contributions in surgical education were willing to talk to me about my ideas and provide advice and encouragement. I left this meeting with a new level of enthusiasm for my work and a commitment to learn more about surgical education” [4].

I completely agree. ASE members are driven by a passion for surgical education. Our organization is filled with experts who are eager to share their knowledge and being an ASE member inspires me to be energized about my academic career.

Mentorship is an important part of the ASE; I would venture to say that all of our members have their own “ASE Story,” which consistently involve one or more mentors getting them involved and supporting their subsequent careers. My ASE mentor was Dan Jones (2015 ASE President, Fig. 1). In 1998, we were together at UT Southwestern (UTSW) Medical Center in Dallas. In his first faculty position, Dan was interested in minimally invasive surgery and surgical education; I was in the middle of my surgery

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Presented April 29, 2021 at the 2021 Annual Meeting of the Association for Surgical Education (held virtually).

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✉ Daniel J. Scott  
Daniel.Scott@UTSouthwestern.edu

<sup>1</sup> UT Southwestern Medical Center, 5323 Harry Hines Blvd.,  
Dallas, TX 75390-9092, USA

**Fig. 1** 2021 ASE President Danny Scott (right) with his long-time mentor and friend, Dan Jones (left, 2015 ASE President); the “2-D’s” photo was taken at Digestive Disease Week in San Diego in 2016



residency and took two years off to be his research fellow. At that time, Royce Laycock (1980–1982 Founding ASE President) [2], was in charge of surgical education at UTSW and pointed Dan towards the ASE. Dan enrolled in the Surgical Education Research Fellowship (SERF) program and selected as his project a randomized trial evaluating the transferability of laparoscopic skills acquired in a simulation environment. As a result, Dan and I, along with Dr. Laycock and others, published the first trial demonstrating that simulation-based training measurably improved operative performance during actual operations [5]. The project proved fruitful and provided new evidence in our field; indeed, this paper has been cited over 500 times.

This project also fueled my career and inspired me to explore many additional scientific questions in simulation. In fact, my next study aimed to quantify the learning curve during our laparoscopic training curriculum. This was well before most of us understood fundamental concepts regarding deliberate practice and we were examining the plateau in performance in terms of the number of repetitions during a 5-h curriculum [6]. I presented this project at my first ASE meeting in Toronto in 2000, accompanied by both Drs. Jones and Laycock, and won the Haemonetics Best Paper Award. I got to meet Richard Reznick (2000 ASE President) and discuss his work developing the Objective Structured Assessment of Technical Skill (OSATS) tool, which we had used in our transferability trial [5, 8, 9]. I also met Roland Folse and many other “giants” in surgical education. I felt quite encouraged about my work, inspired to develop further expertise and to continue advancing this field.

My first social event was at that same meeting and further catalyzed my impressions. Prominent leadership of the organization were on a restaurant stage singing karaoke. By luck, I sat next to Linnea Hauge (for whom the “Linnea

Hauge, PhD, Promising Educational Scholar” Award was named) that night at dinner; she went out of her way to tell me who various people were and introduced me to many of them. It was immediately apparent that the ASE welcomed new people and was a friendly, nurturing group. In the ensuing years, I looked forward to each ASE meeting, as I got to know many experts in surgical education, form long-lasting relationships, and gain knowledge and insights from them.

The ASE’s pursuit of education science resonated with me. I liked the idea of studying how to improve the teaching process and how this work directly affected learners, teachers, and patients. Moreover, I liked the atmosphere of selflessness, collaboration, and doing work for the greater good. Dr. Laycock, who embodied these attributes, described the ASE initially forming to help surgery departments develop expertise in teaching, specifically to educate clerkship students [2]. It quickly became apparent that the ASE needed to build partnerships between surgeons and experts in education to achieve this goal. Furthermore, it became apparent that the ASE needed to address gaps at all levels of surgical education through both research and professional development.

Chris Brandt (2017 ASE President) wrote: “...the power of the ASE, a place where we gather together in common purpose. A place where we recognize excellence in the science and practice of surgical education...” [7]. The ASE is the only society of its kind, that I know of, where a combination of surgeons and educators have a common purpose of surgical education. We focus not only on students but also on all levels of learners, including the development of residents, fellows, and faculty. We also represent not only general surgery but have friends and colleagues within the ASE from all surgical specialties. We are known for our open organizational structure; our open committees (Table 1) allow any

**Table 1** ASE Open Committees, which allow any member to attend meetings and collaborate on projects of interest

## ASE Open Committees

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Assessment, Curriculum and Evaluation  
 Citizenship and Global Responsibility  
 Clerkship Directors  
 Coordinators of Surgical Education  
 Education Technology  
 Faculty Development  
 Graduate Surgical Education  
 Membership  
 Surgical Education Research  
 Simulation

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member to participate, including attending meetings, contributing to projects, and being nominated for committee leadership positions [10]. Additionally, the ASE strives to be a safe place without intimidation or hierarchy.

Our meetings are filled with comradery. For example, at our Awards Banquet, we recognize talented and dedicated individuals who have distinguished themselves in surgical education, starting with awards like the “Promising Medical Student” award, all the way to our giants in surgery. We also recognize clerkship directors who qualify for acceptance into our Academy of Clerkship Directors (ACD) and clerkship coordinators through our Academic Program Administrator Certification in Surgery (APACS) program. Our panels are filled with experts who willingly share their wisdom, experiences, and ideas on all of the contemporary issues that surgical education is facing. We learn a lot through exchanging ideas both during scientific sessions and during social events. We also cherish family and visiting with our international members. Thus, the ASE is our home for surgical education.

### Who are our members?

At the time of the 2021 meeting, the ASE had 1117 total members, with 57% physicians, 27% trainees, and 16% non-physicians. This latter group deserves particular recognition, as it includes our clerkship coordinators and education scientists, who are critical to the mission of the ASE. Our membership extends beyond the United States, with 37 members from Canada and 30 members from 20 additional countries all over the world (Table 2). This year ASE Vice President Dimitrios Stefanidis assembled an International Task Force to better understand how we can meet the needs of our global membership and increase our international outreach.

**Table 2** Countries represented by ASE Members throughout the world

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Australia  
 Brazil  
 Canada  
 Colombia  
 Ethiopia  
 Israel  
 Japan  
 Kenya  
 Lebanon  
 Mexico  
 Netherlands  
 Pakistan  
 Qatar  
 Saudi Arabia  
 Singapore  
 Taiwan  
 Thailand  
 United Arab Emirates  
 United Kingdom  
 United States

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### How have we grown?

The ASE has grown considerably, with 700 members in 2016 compared to 1117 members in 2021, representing a 60% increase. The programming at our annual meeting also reflects this trend. As the 2021 Annual Meeting Program Chair, Marc de Moya did an outstanding job overcoming adversity related to the COVID-19 pandemic and put together a phenomenal virtual meeting. Several statistics characterize changes in the magnitude of program content since I served as program chair in 2016. For instance, in 2021 there were 12 plenary, 90 podium, and 97 poster presentations, compared to 6, 58, and 38, respectively, in 2016. The total number of scientific presentations increased from 102 to 199, representing a 95% growth during this relatively short time period.

Our management has dramatically changed as well. I fondly remember working on countless projects with Susan Kepner, who was our executive director for 26 years. Susan single-handedly managed both the ASE and the ASE Foundation up until her retirement in 2016. Since then, we have been delighted to partner with the BSC management company, who was well known to many of us from other surgical organizations. BSC founder Barbara Berci took a special interest in the ASE and helped us forge a path forward. Since that time, we have enjoyed the support from a whole team of management specialists. BSC leaders Sallie Mathews and Dale Dullabaun helped us navigate through some extremely difficult times last year when, on 1 month's notice, we had to cancel our annual meeting in Seattle due to the onset of

the COVID-19 pandemic. Similarly, this year remained challenging. Fortunately, in 2020, we welcomed Yumi Hori as our Executive Director. All year I enjoyed having weekly calls with Yumi and Catherine Sutherland, our Senior Coordinator, and I am grateful for their support.

As we have grown, and in conjunction with our new management team, our leadership has recognized the need for us to focus on our strategic plans, governance, and operations. Amalia Cochran (2018 ASE President) convened a retreat in Austin, Texas, just prior to the annual meeting and this group created the 2018–2021 Strategic Plan [3]. This plan confirmed our mission, values, goals, and priorities. Subsequently, Sue Steinemann (2019 ASE President) created a Governance Task Force; this group's work led to several changes, including refining committee goals, combining committees (Assessment and Evaluation with Curriculum), establishing a Finance Committee, adding Committee Vice Chairs to the Board of Directors, and updating our bylaws.

We also instituted Annual Executive Committee Retreats, which were held in Dallas in August 2019 and virtually in August 2020. These meetings have allowed the ASE officers to discuss important topics a relaxed atmosphere and thoughtfully spend time aligning activities with strategic goals, identifying new opportunities, and prioritizing resources. We added the immediate past president as a formal member of the Executive Committee to further enhance institutional memory and continuity of leadership. Ranjan Sudan (2020 ASE President) was the first past president to serve in this capacity. The contributions of each of the ASE Executive Committee members (Table 3) was invaluable and their servant leadership was exemplary, especially in a year that required particular flexibility, determination, and collective wisdom.

Given the pandemic, our committee and board members became quite facile using virtual meetings and were highly productive in accomplishing the business at hand. Ironically, this format provided continuity that we had not previously enjoyed and helped us maintain our momentum. Given the need for frequent communication, our board of directors met quarterly instead of every 6 months. Our bylaws were updated to accommodate electronic voting and the society conducted business seamlessly. We created

new positions to have trainee representatives on the board; Emily Witt, a third year medical student at Harvard, and Christie Buonpane, a PGY5 surgery resident at Geisinger, provided their invaluable learner perspectives in this capacity.

## Major ASE initiatives

For many years, the ASE has enjoyed developing national curricula that have enhanced learning on a broad scale. In 2009, when Dan Jones was the first chair of the ASE Simulation Committee and I was the vice chair, the ASE partnered with the American College of Surgeons (ACS) to develop the Medical Student Simulation-based Surgical Skills Curriculum [11]. Ajit Sachdeva (1993 ASE President), in his role as the Director of the ACS Division of Education, helped the ASE to form a critical alliance on this project, with Bob Acton and Andre Campbell leading this effort on behalf of the ASE and ACS, respectively. Following this collaborative model, the ASE developed the Resident Prep Curriculum in conjunction with the ACS and the Association of Program Directors in Surgery (APDS). Rebecca Minter, Jeremy Lipman, and many others from the ASE Assessment, Evaluation, and Curriculum Committee were pivotal to this effort. More recently, the ASE/ACS Medical Student Core Curriculum was launched, with Marc de Moya and Ranjan Sudan (2020 ASE President) leading this effort. The latter curriculum set an all-time subscription record as the demand for asynchronous learning opportunities was very high this year due to COVID-19.

The SERF program is a longstanding, flagship ASE offering, having been started in 1994 by Deb DaRosa. SERF is a 1-year self-study and mentored program designed to equip individuals with the skills and knowledge needed to plan, implement, and report educational research studies. This program has been cited as a valuable path to developing expertise in education research [12] and remains quite popular. Under the leadership of Maura Sullivan and David Rogers, 26 participants enrolled this year. The ASE recently developed a parallel program, the Surgical Education and Leadership Fellowship (SELF), under the leadership of Laura Torbeck and 12 participants enrolled in our inaugural year.

Realizing the need for enhancing communication and leveraging available technologies, the ASE launched the ASE DocMatter initiative this year. This effort, led by Mike Awad and Mo Shabahang, offers a curated and moderated platform that allows members to form communities in specific areas of interest and fosters collaboration.

The ASE has enjoyed a beneficial relationship with the American Journal of Surgery for many years [13]. The

**Table 3** 2020–2021 ASE Executive Committee Members

Daniel Scott, President
Ranjan Sudan, Immediate Past President
Adnan Alseidi, President-elect
Dimitrios Stefanidis, Vice President
Michael Awad, Treasurer
Mohsen Shabahang, Secretary

society has made a significant impact on the dissemination of new knowledge through this publication, as the ASE annual meeting papers were touted to have the highest impact factor of all the journal's work. Dimitrios Stefanidis led a task force this year to explore starting our own journal and the Association signed a contract with Springer to do so. The new journal is titled "Global Surgical Education—Journal of the Association for Surgical Education," and aims to serve as a very high-quality publication for scholarly work from around the world.

Over several years, the ASE Simulation Committee developed the Advanced Training in Laparoscopic Suturing (ATLAS) program. Dmitry Nepomnayshy and numerous other committee members developed six simulated tasks and published studies regarding validity evidence [14, 15]. The program is now being launched as a commercial partnership with Limbs and Things (Bristol, UK).

### The ASE Foundation

Having served on the Board of Directors (2009–2015) and as Vice President (2013–2015) of the ASE Foundation (ASEF), it has been a privilege for me to see its evolution. Created in 1993, the ASEF's mission is to "provide sustainable support for research and professional development programs of the Association for Surgical Education and its members." The ASEF is probably best known for the Center for Excellence in Surgical Education Research and Training (CESERT) program (Est. 1999), which distributed \$988,000 in grant funding during its first 15 years to support the educational research projects of ASE members [16].

In 2017, in a collaboration between the ASE and ASEF, I led an endowment campaign for the Laycock Lectureship; this was particularly meaningful, given my relationship with Dr. Laycock (Fig. 2). He influenced a great many students, residents, and faculty in his 50+ years at UT Southwestern Medical Center, and we met our 2-year funding goal of \$50,000 thanks to the generous support from both ASE members and UT Southwestern alumni.

I joined an ASEF redesign working group, led by Armour Forse (2013–2021 ASEF President), Adnan Alseidi (2022 ASEF President), and Mo Shabahang (current ASEF President). In 2019, we populated a new slate of 2-year appointments for officers and board members and in 2020 we held a retreat in Dallas; the result was establishing a \$1 million corpus goal. At the time of the 2021 meeting, the ASEF had raised \$74,571 for the year, which boosted our corpus to \$422,848. The ASEF has done a great job in its fundraising, as well as redefining the CESERT program, which awarded 9 grants this year using tiered award amounts, ranging from \$500 to \$25,000. Recognizing the importance of the ASEF, the ASE board approved providing matching funds for member donations this cycle.



**Fig. 2** Dr. Royce Laycock and the author at UT Southwestern Medical Center, following a discussion about the ASE Foundation Laycock Endowment Campaign (2017)

### DEI

The ASE prides itself on being inclusive, such as showing support for the HeForShe movement [17]. However, as Amalia Cochran (2018 ASE President) wrote in her presidential address, "Surrounding ourselves with people who look and think like ourselves is an easy answer, but it's not the best answer" [18]. In 2019, Ranjan Sudan (2020 ASE President) started the DEI Task Force; the tumultuous events of 2020 further heightened our awareness about the need to make DEI an ASE priority. I was personally inspired when I helped my daughter do research for a high school English assignment; she picked Colin Kaepernick to write about and I developed a much deeper appreciation for Kaepernick's tenacity in protesting against systemic racism. The Black Lives Matter movement made many ASE members reflect on our moral obligation as educators to provide leadership in this area.

One ASE initiative has been the DEI Climate Survey, which was sent to all ASE members; interval analysis indicated overall positive responses, but some members reported experiencing discrimination in the ASE based on age and membership category, while the number was small, the idea of any discrimination is disturbing. Despite five women

serving as ASE presidents in the last 10 years, numerous members commented on this year's all male Executive Committee. Fortunately, Aimee Gardner is now on the Executive Committee but intentionality to enhance DEI in the ASE leadership is still needed. The 2021 meeting included two keynote lectures that emphasized DEI topics; Andre Campbell delivered the Folse Lecture, "Diversifying the Surgical Pipeline," and Mary McCarthy delivered the Laycock Lecture, "The Future of Women in Surgery: Playing Offense, Not Defense." We are very excited about the work being pursued by the DEI Task Force that will undoubtedly aid our understanding of DEI issues, allow us to identify opportunities, form new partnerships, and implement impactful programs.

## Lessons from the COVID-19 pandemic

Finally, a word about the pandemic. It was just over a year ago when our world dramatically changed. Our hearts go out to all of the people who have suffered losses as a result, and especially for people in other parts of the world where cases are dramatically rising, and resources are scarce.

Despite the hardships and tragedies, the pandemic has also taught us some lessons and yielded positive consequences for which we should be grateful. Some of these aspects may sound trite, but I have learned to take joy in seemingly little things. For example, having more time with my family, more time for exercise, less driving, no airplane travel for 14 months, and a more relaxed dress code. From an educational standpoint, we have successfully adapted many of our activities, including becoming facile with virtual formats for meetings, interviews, and board exams. Novel conferences based on video review emerged and we transformed many simulation activities to remote learning through software technology, at-home training, and the use of video-based proficiency verification.

There is, however, no substitute for the in-person interactions which occur at our annual meeting; we are looking very forward to hosting the 2022 Surgical Education Week in San Antonio as an in-person event with the APDS.

## Conclusion

It is apparent that we are living in a difficult and changing world. At 41 years, the ASE is adapting and thriving. We need to recognize, embrace, and optimize our culture as we nurture our members on their journey and empower the ASE to continue playing a pivotal role in surgical education.

## Dedication to Royce Laycock

I would like to dedicate this address to Dr. Laycock, who taught me and so many others what it means to treat everyone with respect, to be humble, and to take great joy in helping people develop into their full potential. I am indebted to his kindness and his wisdom.

**Acknowledgements** I would like to gratefully acknowledge the invaluable support I received from my family, department, institution, mentors, colleagues, the ASE Executive Committee, and our BSC team.

## Declarations

**Conflict of interest** The author has no relevant financial or non-financial interests to disclose.

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