

# ACS/Bulletin

AMERICAN COLLEGE OF SURGEONS

## For Surgeons, Artisanship Is Vehicle for Helping Others

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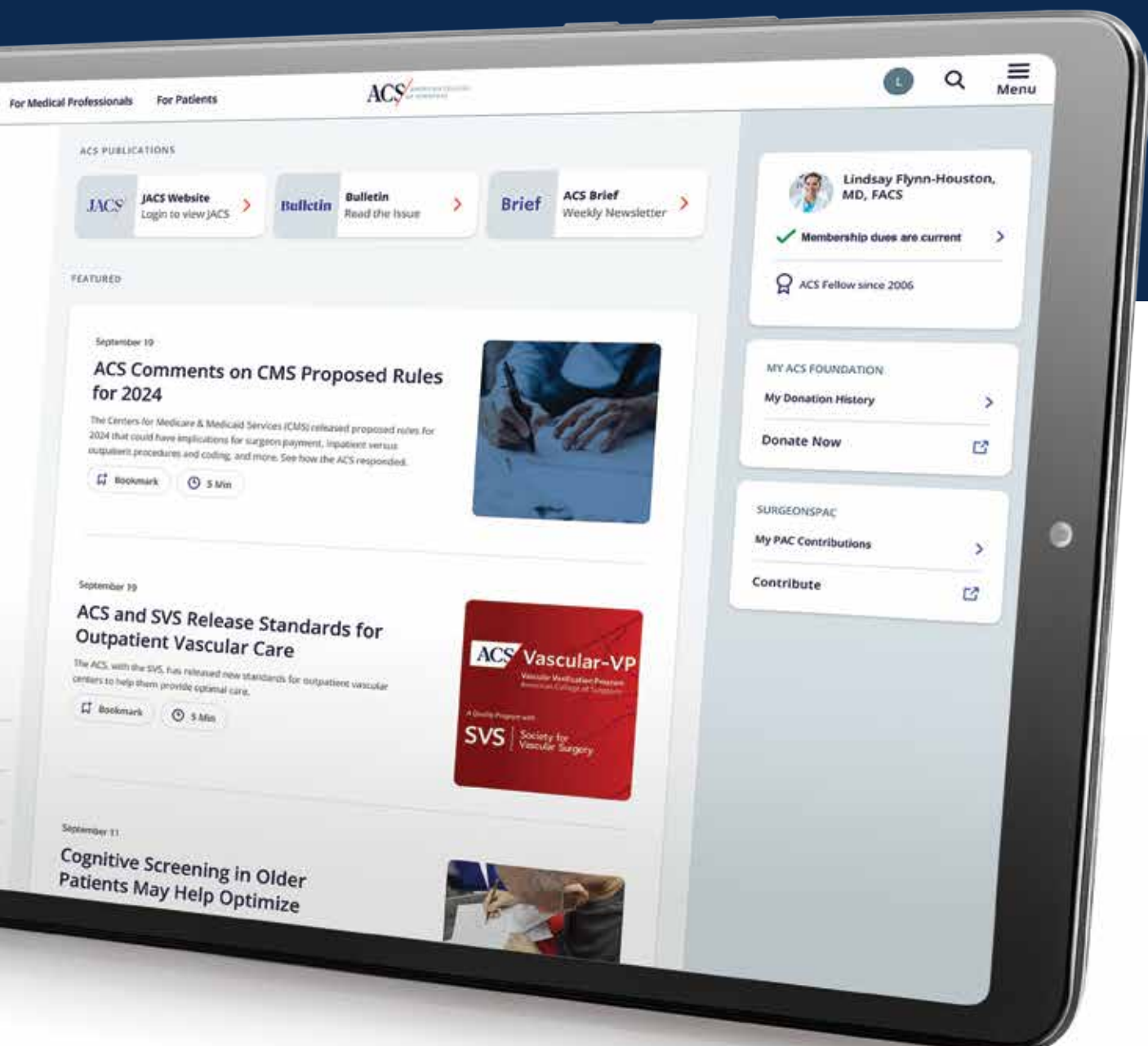
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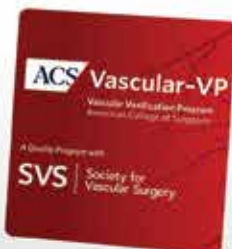


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*Bulletin of the American College of Surgeons* (ISSN 0002-8045) is published 10 times a year by the American College of Surgeons, 633 N. Saint Clair St., Chicago, IL 60611-3295. It is distributed electronically, without charge, to all ACS members. Dues-paying members can request a complimentary print subscription. Nondues-paying members and nonmembers can purchase an annual print subscription (\$50 within the US and Canada; \$75 for all others). Contact [bulletin@facs.org](mailto:bulletin@facs.org).

Periodicals postage paid at Chicago, IL, and additional mailing offices. POSTMASTER: Send address changes to *Bulletin of the American College of Surgeons*, 633 N. Saint Clair St., Chicago, IL 60611-3295. Canadian Publications Mail Agreement No. 40035010. The American College of Surgeons headquarters is located at 633 N. Saint Clair St., Suite 2400, Chicago, IL 60611-3295; tel. 312-202-5000; toll-free: 800-621-4111; email: [postmaster@facs.org](mailto:postmaster@facs.org); website: [facs.org](http://facs.org). The Washington Office is located at 20 F Street NW, Suite 1000, Washington, DC 20001-6701; tel. 202-337-2701.

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# What's New at Clinical Congress for 2024 and Beyond

Patricia L. Turner, MD, MBA, FACS

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CHALLENGING, unpredictable experiences are intrinsic to our work as surgeons—but alongside these, we enjoy a yearly calendar with occasionally stable routines. Every July, we welcome new residents into surgical training and graduating residents into surgical practice. Every autumn, we enjoy Clinical Congress, the conference that is the ACS's calling card to many surgeons worldwide.

As a resident, I aspired to have a paper or talk that would allow

me to attend Clinical Congress. As an attending, I looked forward to Clinical Congress as a time of knowledge acquisition, skill-building, social connection, intellectual engagement, and meaningful reflection on our profession. I value this part of my fall routine, and I know many of you feel the same.

Clinical Congress must always evolve. It has, for over 100 years, been an ACS point of pride that this conference has something for surgeons in every discipline. We engage attendees in every career stage and practice configuration. Maintaining high standards and enhancing value involves steadily updating our offerings. For 2024 and the years to follow, we've made changes to help ensure we can best serve surgeons of all kinds.

## Changes in 2024

This year, our conference returns to San Francisco, California. San Francisco has historically been our most highly attended conference city. Our first Clinical Congress there was in 1935. We have, this year, shifted the

entire conference a day earlier, to a schedule of Saturday through Tuesday. This change has been considered for a few years, because anchoring the conference on the weekend allows many of our members to limit their days away from clinical practice to attend. We are pleased to make this change in response to the requests of so many of you. Clinical Congress will be from Saturday, October 19, to Tuesday, October 22. Convocation, including the initiation of new Fellows, will occur on Saturday evening, and the Opening Ceremony and Martin Memorial lecture will be on Sunday morning. We hope to see all of you at both events and throughout the conference.

Another concern was that sessions for specific surgical disciplines or interests were often scattered throughout the 4-day program. We've begun to address that. While there will be sessions in all disciplines presented on all 4 days of this year's conference, we have added six new thematic sessions focusing on education, quality, artificial intelligence,



neurosurgery, cardiothoracic surgery, and vascular surgery, to better serve those interested in these areas. Furthermore, we have scheduled sessions with an interdisciplinary focus during 2 days to facilitate bringing together surgeons from many disciplines.

Rounding out our responsiveness to your feedback, we will adjust our schedule of Named Lectures. Four Named Lectures will be presented every year, and the other eight will move to an every-other-year rotation. We are also sunsetting the earliest (and most lightly attended) sessions of each day. Our hope is that you will avail yourselves of our early morning physical activity sessions and focus on enhancing your wellness in this way. We've also rescheduled the last session on the last day of the meeting to allow as many of you as possible to attend our Annual Business Meeting of Members. Please join us there.

Of course, we are keeping Taste of the City, our food-focused and family-friendly social gathering, as the final event of the conference. We hope to see you there too, and we remind you that the final day of the meeting encourages casual dress.

No matter what the schedule, we are focused on your safety and well-being in San Francisco and every city Clinical Congress visits. We have worked closely with officials, including at the conference venue and in the city government, to help ensure the security of all attendees during this year's meeting.

## Changes in 2025 and Beyond

Further improvements will come to Clinical Congress starting in 2025.

This year, we will maintain a 4-day format with the same approximate number of sessions on each day. This format is our long-standing tradition. Starting in 2025, in Chicago, Illinois (Saturday, October 4, to Tuesday, October 7), we'll add to the convenience of thematic sessions by shifting to a format that places more content on Sunday and Monday, followed by a more tightly focused Tuesday. Since nearly all content will be available on demand within a few hours, this will facilitate active engagement in your most desired sessions, access to all content in all sessions, and efficiency of your time and travel.

On Sundays and Mondays, we will ensure maximum access through sessions arranged by surgical discipline. If you are in a discipline such as orthopaedic surgery, neurosurgery, urology, gynecologic surgery, pediatric, trauma, or transplant surgery, many of your sessions, as well as a significant proportion of general surgery will be positioned on these 2 days, as well as multidisciplinary clinical topics and professional education applicable to all surgeons.

Tuesdays cover a slightly smaller number of sessions on more specific and in-depth topics. We expect this new "triangular" format will enhance efficiency over our traditional "rectangular" one.

We've heard you tell us that taking time away from practice

is challenging. Presenting the content for most disciplines in an efficient time span centered on a weekend helps us deliver maximum benefit with less time away from work.

## Learn More

Read more about Clinical Congress 2024 in the feature article on pages 16–23.


## Update Your Profile

To provide you with the information you need and want, we've created an online Surgeon's Dashboard with curated content specific to your surgical practice, career stage, and interests. To streamline your access to your most relevant content, update your profile on [profile.facs.org](https://profile.facs.org) with your interests.

## Share Your Thoughts

Please tell us how you like the new format, share what sessions you'd like to see, and help us continue to make Clinical Congress the must-attend destination for you each autumn.

## Register Now for Clinical Congress 2024

Of course, there is no greater way to understand the improvements we're making than to see them yourself. Join us at Clinical Congress in San Francisco. Register now at [facs.org/clincon2024](https://facs.org/clincon2024). 

**Dr. Patricia Turner** is the Executive Director & CEO of the American College of Surgeons. Contact her at [executivedirector@facs.org](mailto:executivedirector@facs.org).

# For Surgeons, Artistry Is Vehicle for Helping Others

M. Sophia Newman, MPH





VISUAL ART, particularly drawing, has been a part of medicine for centuries—albeit often less for artistic ends per se than the practicalities of explaining or recording details of clinical findings and surgical interventions.<sup>1</sup>

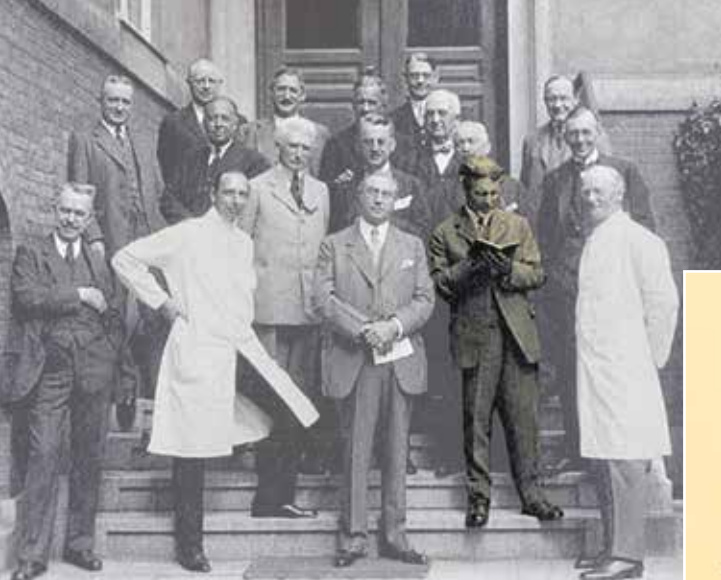
However, there has never been a firm line between clinical imagery and art. Leonardo da Vinci's studies of human anatomy have long been regarded as art, for instance, and the Nobel Prize-winning neuroanatomist Santiago Ramón y Cajal (1852–1934) produced ink drawings of neurons and glial cells that are now displayed in art museums.<sup>2</sup>

Founding ACS member Robert L. Dickinson, MD, FACS (1861–1950), a gynecological surgeon from New York, New York, created not only drawings meant to increase public understanding of health information, but also portraits and landscapes sketched during a 1926 trip he took to Scandinavia with other early ACS members to learn about surgical techniques.

In the present day, the idea of visual art as a support for medical practice is commonplace. Researchers have documented positive outcomes of programs for creating drawings and sculptures that teach anatomy, hand-eye coordination, and communication to medical students.<sup>3</sup> Some have raised the point that, in an increasingly digital world, the analog quality of making art permits surgical trainees to develop manual dexterity by working with art materials.<sup>3</sup>

Others have advocated for close observation of fine art, particularly images of the human form, to hone students' abilities to closely observe patients for diagnostic purposes.<sup>4</sup> In one case, this activity has been more than mere skills practice: in 2019, a practicing cardiologist observing David, the famous statue by Michelangelo (1475–1564) in Florence,

"Big Eyes" painting  
by Dr. Steven  
Snodgrass.



**This page:**  
Dr. Robert Dickinson sketches amidst a group photo during an ACS journey to Europe; his image of Bergen, Norway, is inset.

**Opposite page:**  
Dr. Daniel Lu views a violin in his workshop. A violin in progress rests on a work bench. (Dr. Lu photos courtesy of Milo Mitchell, UCLA Health)

Italy, noticed a finely rendered jugular vein on the statue's neck and renamed this sign of stress, elevated intracardiac pressures, and possible cardiac dysfunction the David sign.<sup>5</sup>

Still others have described art creation and appreciation as ways to preserve physician well-being.<sup>6</sup>

Very few studies seem to have investigated not just art, but craft. While some surgeons create two-dimensional fine art, other examples of current practitioners are in fact artisans: violinmaker Daniel C. Lu, MD, PhD, for example, or quiltmaker Eileen M. Bulger, MD, FACS, Medical Director of ACS Trauma Programs.

Grouping these two surgeon-artists with surgeon-turned-painter Steven Snodgrass, MD, FACS, reveals a new possibility about why surgeons create art. For these surgeons, this work is not necessarily or solely about developing clinical acumen or even maintaining personal well-being. Rather, for all three, a key purpose of making art lies in the social ties and practical impact connected to the objects they create.

## Counterbalance and Refinement

Dr. Lu, a neurosurgeon, vice-chair of research in the Department of Neurosurgery, and principal investigator of the Neuroplasticity and Repair Laboratory at the University of California, Los Angeles (UCLA), began playing violin at age 12. His journey into making violins was much briefer than that long history might suggest, however.

One day in 2012, when visiting Angeles Violin Shop in Los Angeles, he spontaneously asked the owner, violinmaker Jeffrey Muller, if he could learn to make his own violins there. Although Muller did not typically offer lessons, he agreed to teach Dr. Lu. The match turned out to be uniquely powerful. "Not everyone is that open and generous in terms of offering their skills and wisdom on how to make this," Dr. Lu said. "So, it was the right match at the right time and right place with the right person that brought this about."

While many amateurs can make passable stringed instruments, Dr. Lu has attained the rather unique achievement of creating

instruments suitable for professional-level musicians. Working mostly at night after his two young children are asleep, he creates violins that are so sought after they require a waiting list. "I'm quite backed up in terms of having two or three that I need to complete," he said.

Although creating music, rather than fabricating the instruments to play it, is the more widely acknowledged musical art form, Dr. Lu believes his work is itself an art. "There are a lot of nuances and creativity that go into making a violin, in a way that you can still express yourself," he said, explaining that individual luthiers, including the enduringly famous Antoni Stradivari (1644–1737) and Giuseppe Guarneri (1698–1744), have created instruments that reflect their personal approaches and feel and sound highly distinctive from those of others.

For Dr. Lu, the process of making violins is both a counterbalance to his surgical practice and a refinement of it. "I totally love the aspect that is rooted in tradition," he said. "A lot of this stuff that I'm doing is untainted by advancements

in technology. It's a nice counterbalance to the modern world that we live in right now."

Yet, he also placed violin-making in the range of other hands-on hobbies he's enjoyed, such as fixing cars and playing video games.

Dr. Lu said all these activities have honed his focus on understanding how things work and improved his hand-eye coordination and manual dexterity—skills he uses in his neurosurgical practice—while permitting him to experiment in a low-stakes environment.

The benefits flow both ways, he said, attributing his success as a violin maker in part to his surgical background as well. "The skillset for making a violin flows naturally from being a surgeon and being very exacting," explained Dr. Lu.

## A Way to Be in the Moment

Dr. Snodgrass, a surgeon turned painter, also connects his artistic practice to his surgical career.

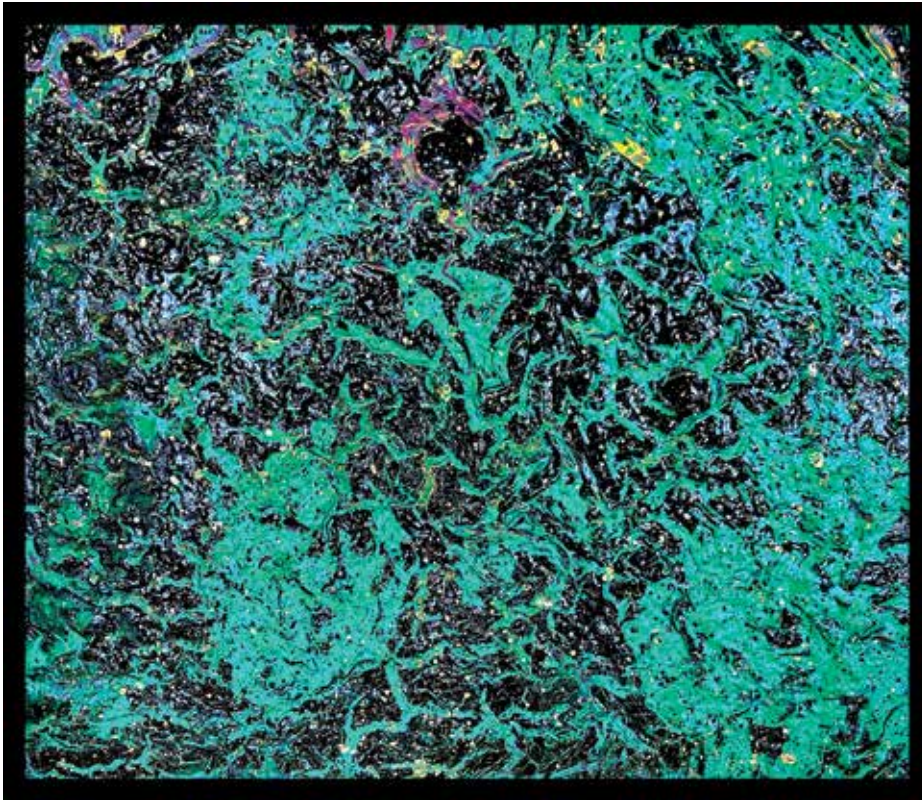
After retiring from surgery at age 48 due to severe glaucoma, Dr. Snodgrass took up martial arts, eventually attaining a sixth-degree black belt. While contemplating the ways that surgery and martial arts both depend on understanding human anatomy, Dr. Snodgrass also began to wonder what using the motion of martial arts to apply paint to a canvas would create. Eventually, with some trepidation, he began to experiment.

The resulting abstract paintings have been shown at three galleries and received a warm reception

"I totally love the aspect that is rooted in tradition. A lot of this stuff that I'm doing is untainted by advancements in technology. It's a nice counterbalance to the modern world that we live in right now."

Dr. Daniel Lu





“I treat each canvas like a patient.”

Dr. Steven Snodgrass

“Black Jade”  
painting by  
Dr. Steven  
Snodgrass.

from audiences. “I think part of why it’s liked so much is because it’s from the gut,” Dr. Snodgrass said of his work’s success. “It’s raw, and it’s real, and I think those are the qualifications that make for good art.”

As a result, he said, “I feel like I’ve turned a major negative diagnosis into a positive, because glaucoma has given me a special appreciation for color and texture. When you think you’re going to lose your eyesight, it becomes more precious.”

The diagnosis was indeed no small loss, since it precipitated an end to his surgical career. Dr. Snodgrass, a general vascular surgeon, was in private practice and affiliated with HCA Greenview Hospital and Medical Center (now TriStar Greenview Regional Hospital) in Bowling Green, Kentucky. “If you saw me as a patient, you were the sickest of the sick or the most injured of the injured.

I did big, complex cases.”

The intensity of his case mix created a life of extreme busyness, which Dr. Snodgrass called a boon. “I really loved it. I was really in the moment all the time.”

Now, “I treat each canvas like a patient,” attending to it carefully, he said, a process that is “just like when you are doing a complex case. You’re in your own mind, working through it and solving problems, and that transfers over to the paint. It’s because you are so totally in the moment.”

### Relaxation and Expression

Dr. Bulger, a surgeon in the Division of Trauma, Burn, and Critical Care Surgery at the University of Washington (UW), and chief of surgery at Harborview Medical Center in Seattle, began quilting as a surgical resident, when another resident offered to teach her to make a quilt for the baby she was then expecting.

She began with no experience sewing anything but “surgical things,” she said, quickly coming to enjoy the craft.

Since then, Dr. Bulger has created a steady stream of quilts in a wide range of styles. She gently eschews the idea that quilting, with its aesthetic charms and meditatively repetitive motions, represents a kind of psychological corrective to the high-stress work of trauma surgery. Instead, she called it “a work-life balance sort of thing,” and explained, “It’s a great way to relax. It’s a great way to create things that you know give people joy or comfort.”

Indeed, Dr. Bulger has made some quilts for practical use, including as gifts for newborns and relatives’ wedding anniversaries. But she also feels quilting is an art form in itself. “I think anybody who quilts should probably be considered an artist,” she said.

She explained that the work can

be sophisticated and complex in style and technique, as well as an important vehicle for expression. Speaking of quilting's long history, she noted, "Some of the historical quilts were really a way for women in very suppressed environments to have their voices heard and show what they were thinking."

While she herself evinces no particular oppression, she, too, has focused her quilting on communicating her interests. On the 24th floor of the ACS headquarters in Chicago, Illinois, a quilt by Dr. Bulger (she calls it "the best one I've ever done") celebrates the ACS Committee on Trauma (COT)'s 100th anniversary in 2022. It also happens to reflect her own long history of working with the COT.

The quilt is divided into 37 panels, each of which Dr. Bulger carefully designed to reflect the COT's mission. For example, two panels contain two halves of the globe, reflecting the worldwide reach of Advanced Trauma Life Support® (ATLS®), a program that has been taught in more than 80 countries. (Dr. Bulger herself has helped promulgate ATLS in Rwanda and other countries via the ACS Health Outreach Program for Equity in Global Surgery, the College's domestic and global surgery volunteerism initiative.)

Elsewhere on the quilt, the range of colors for human figures captures the COT commitment to diversity, and one panel shows the US Capitol building in purple, a color chosen to combine the red motif of the Republican Party with the blue of the Democrats in a nod to bipartisanship in COT advocacy.

A large center panel shows the COT logo, which depicts a stylized injured patient. "We try

to keep the patient at the center of everything that we do in the Committee on Trauma," Dr. Bulger explained. "That's the core of the philosophy of the COT."

### Doing Good for Others—and Oneself

For all these surgeon-artists, making art objects is a vehicle to a refinement of their own lives. But it is more than that: all three are also interested in seeing their creative work help others.

Over time, Dr. Snodgrass has expanded his interest in art to focus on sharing the benefits he gains from it—even as this transcends his initial interest in

human anatomy and movement. "We focus so much on the anatomy. What's broken? Fix it," he said. "You have to pause and think that's actually a human being there, and that human being is made up of much more than their disease, and we have to say, 'What can we do to make this better emotionally for the patient?' I think art therapy is vastly underused."

He has developed a connection with Americans for the Arts, a nonprofit that advocates for the arts, to promote art therapy. He said his advocacy goal is for art therapy to be included in usual and customary insurance

A quilt by Dr. Eileen Bulger features bold colors in a traditional pattern.





This quilt—created by Dr. Eileen Bulger—celebrates the ACS COT 100th anniversary (2022) and reflects her long history of working with the committee.

coverage, thus facilitating its wider use.

In addition, he has established an online venture, the Williams-Snodgrass Art Gallery, through which he donates a portion of each gallery commission to Vanderbilt University Medical Center (VUMC). The funds support the VUMC Arts program, which adds comfort and compassion to the patient experience through multifaceted art offerings.

For Dr. Bulger, making the quilts themselves is a kind of philanthropic act. Several

years ago, she joined the UW Medicine Comfort Care Quilts Seattle which provides three hospitals in the Seattle area (including her own) free quilts for patients entering end-of-life care. She described the group as active and retired healthcare and social services professionals, as well as a few family members of former patients. Meeting on occasional weekends, they create and donate hundreds of quilts a year. “We put together at least 50 or so in a day,” Dr. Bulger explained.

Although Dr. Bulger is not

a founder of the Comfort Care group, she has helped propagate the concept. During her trauma and surgical critical care fellowship at Harborview, Ashley D. Meagher, MD, MPH, FACS, a mentee of Dr. Bulger, was an active member of the quilting group. When Dr. Meagher became an assistant professor of surgery at Indiana University School of Medicine in Indianapolis, she founded Indiana Comfort Care Quilting group which replicates the Seattle group’s model and provides hundreds of quilts to



“It’s a great way to create things that you know give people joy or comfort.”

Dr. Eileen Bulger

palliative care patients in Indiana each year.<sup>7</sup>

Dr. Bulger said donating quilts to patients benefits her as well. “It’s really nice to be able to offer something to the family when medical care has exhausted all its options,” she said, a situation she communicates often in her role as a trauma surgeon.

“I think the other nice thing about the quilts is that we learn a lot from talking to the family. We learn about the patient and what they would like, and we can usually find a quilt that kind of matches that,” including one case in which a former rodeo rider received a quilt depicting the horses he’d loved. “We say the quilt finds the right person.”

Dr. Lu, too, connects his artistic output with those who can benefit from it. “I’d never sell my instruments,” he said, “because I think there are enough people who do this and want to make a living. They ought to do it. So, I donate my violins.”

Specifically, Dr. Lu donates instruments to University of California, Los Angeles’s Herb Alpert School of Music and the Conservatory of Music at the Colburn School, both of which are tertiary-level music schools in Los Angeles. “I identify people who are on the professional track to pursue music and are in need of an instrument,” Dr. Lu explained, before providing a bespoke violin to such a person.

As with many philanthropic acts, the benefit is not only to the recipient but also to the giver.

“It’s a highly gratifying experience to have your instrument played and enjoyed in the concert hall,” Dr. Lu said. “It’s a remarkable type of experience to sit in the audience and hear that violin being played, and be proud of the sound that it produces, and know that it found the right home.”

### Multiple Purposes

In total, art and artisanship in surgery offer much more than what research suggests. It can refine a surgical technique, reduce stress, add outlets for self-expression, and offer opportunities to contribute to the community. Just as the art itself eventually finds the right home, so do surgeons—within their chosen craft or artistic practice, and with the many benefits it might bring them. **B**

**M. Sophia Newman** is the *Medical Writer and Speechwriter in the ACS Division of Integrated Communications in Chicago, IL.*

### References

1. Card EB, Mauch JT, Lin IC. Learner drawing and sculpting in surgical education: A systematic review. *J Surg Res.* 2021;267:577-585.
2. Smith R. A deep dive into the brain, hand-drawn by the father of neuroscience. Published January 18, 2018. Accessed April 29, 2024. <https://www.nytimes.com/2018/01/18/arts/design/brain-neuroscience-santiago-ramon-y-cajal-grey-gallery.html>
3. Cohen SM, Dai A, Katz JT, Ganske IM. Art in surgery: A review of art-based medical humanities curricula in surgical residency. *J Surg Educ.* 2023; 80(3):393-406.
4. Khullar D. What doctors can learn from looking at art. Published December 22, 2016. Accessed April 15, 2024. <https://www.nytimes.com/2016/12/22/well/live/what-doctors-can-learn-from-looking-at-art.html>
5. Gelfman D. The David sign. *JAMA Cardiol.* 2020;5(2):124-125. doi:10.1001/jamacardio.2019.4874
6. Von Sneider M. The surgeon as artist. No date. Accessed April 15, 2024. <https://cas.nyu.edu/content/dam/nyu-as/casEWP/documents/sneidersurgeon.pdf>
7. Gutierrez M. IU School of Medicine trauma surgeon brings comfort to patients through quilting. Published January 15, 2020. Accessed May 15, 2024. <https://medicine.iu.edu/blogs/surgery/surgeon-brings-comfort-to-patients-through-quilting>



## Where to Find These Artists



See Dr. Steven Snodgrass’s work on Instagram at @drstevesurgeon; visit the Williams-Snodgrass Art Gallery at [williamssnodgrassart.com](http://williamssnodgrassart.com).



View Dr. Bulger’s Committee on Trauma quilt at ACS headquarters in Chicago, Illinois; find Comfort Care Quilts Seattle on Facebook.



Get in touch with Dr. Lu’s luthier work via Angeles Violin Shop in Los Angeles, California.



# Get Ready for Clinical Congress 2024 in San Francisco

Thousands of surgeons and medical professionals will join the ACS in San Francisco, California, to attend Clinical Congress 2024, October 19–22.

ADDRESSING LONGTIME FEEDBACK REGARDING the timeline for Clinical Congress, this year's new Saturday-through-Tuesday meeting will provide the high-quality, innovative content attendees have come to expect—all while spending fewer days away from hospitals, clinics, and patients.

“Most of us belong to a number of surgical societies, and we attend those specialty meetings. But what distinguishes Clinical Congress is that we really are the House of Surgery for all surgeons. There is content that is relevant to every one of us, no matter the stage of our career, no matter our practice type or situation, no matter our specialty,” said Patricia L. Turner, MD, MBA, FACS, Executive Director and CEO. “We are mindful of all the things that come together to support us in our profession, and we try to cover all of that and deliver it to you in an efficient package.”

## **New: Early Specialty and Multidisciplinary Sessions, Focus on AI**

Clinical Congress content continually evolves to meet the needs of surgeons and other attendees. Taking advantage of a new format over a full weekend, exciting and significant changes include additional thematic and specialty content during the conference's first 2 days.

“We are adding new features to the front end of the conference that will be of real value and relevance to

all surgical specialties, including new thematic tracks on education, quality, and artificial intelligence (AI),” according to Ajit K. Sachdeva, MD, FACS, FRCSC, Director of the ACS Division of Education, noting that these tracks will provide an easy way for surgeons to follow sessions of interest in broad categories.

Specialty sessions on cardiothoracic surgery, vascular surgery, neurosurgery, and more will be available on Sunday and Monday, further allowing surgeons across the disciplines to conveniently attend the sessions that matter to them.

In addition, there will be an even greater emphasis on multidisciplinary panels. Sessions this year will include:

- “Fournier’s Gangrene: Multidisciplinary Management,” which is relevant to colorectal surgeons, urologic surgeons, and obstetric and gynecologic surgeons
- “Assessment and Management of Ocular, Orbital, and Skull-Based Injuries,” which is relevant to otolaryngologists, oral and maxillofacial surgeons, neurological surgeons, ophthalmologists, and trauma surgeons
- “Evaluation and Management of Patients with Secondary and Tertiary Renal Hyperparathyroidism,” which is relevant to endocrine surgeons, urologists, and general surgeons

**“I remember how important it was for me to be initiated and become a Fellow of the American College of Surgeons. Now, 28 years later, to be presiding over the event is quite special.”**

Dr. Henri Ford

“In our specialty society meetings, we find great content regarding our areas of expertise, but it’s rare to find something with the contribution of other disciplines,” said Fabrizio Michelassi, MD, FACS, Vice-Chair of the ACS Board of Regents and Chair of the Clinical Congress Program Committee. “The ACS, as the House of Surgery, brings all the surgeons together and provides the opportunity to create these multidisciplinary panels, which are of interest to a wide range of surgeons.”

The first part of the new track on AI is a special session immediately following the Martin Memorial Lecture. This session, “Generative AI Tools for Surgery: Will AI Change My Practice?” is being developed with the help of the ACS Health Informatics Committee and information technology staff and will focus on the use of AI in surgical care and surgical education.

“AI is growing by leaps and bounds, and it is rapidly becoming an integral part of what we do in surgery, both clinically and in education,” Dr. Sachdeva said. “It has developed into a discipline unto itself. So, we are trying to capture as much on AI, machine learning, and deep learning to support our practices and teaching. This first AI session, as well as the others taking place later in the conference, are going to help move the needle forward.”

In addition, the Scientific Forum’s “High-Impact Clinical Trials & Studies” session, which highlights recent clinical trials and studies from all surgical disciplines with an emphasis on research that

will directly impact surgical science and practice, also will return this year. Submit your study for consideration at [facs.org/clincon2024](https://facs.org/clincon2024).

### **New Fellows**

An annual highlight of Clinical Congress is the Convocation Ceremony, which confers Fellowship upon surgeons who have successfully met the College’s requirements and standards and who are committed to the ACS mission and values.

This year, reflecting the new conference timeline, the ceremony will take place on Saturday evening and will include recognition of Honorary Fellows, presentation of the Distinguished Service Award, installation of ACS Officers and Officers-Elect, and the Presidential Address.

“It is particularly special for me to attend the Convocation as a culmination of my year as ACS President,” said Henri R. Ford, MD, MHA, FACS. “I remember how important it was for me to be initiated and become a Fellow of the American College of Surgeons. Now, 28 years later, to be presiding over the event is quite special.”

The Convocation Ceremony also will be livestreamed for those unable to attend in person.

### **Broad-Based Content for All Surgeons**

The cornerstone of Clinical Congress is an unmatched scientific and clinical education program. In addition to the new specialty and multidisciplinary sessions, popular broad-based content relevant to all surgeons will return.



More than 100 Panel Sessions will be available, covering a wide range of content that includes core general surgery topics:

- “Appendicitis: What’s Old, What’s New?”
- “The Ever-Shifting Paradigm in the Treatment of Diverticulitis”
- “Ventral Hernias in Obese Patients: How Should We Do It?”
- “The Ugly Truth Behind the Concept of Subtotal Cholecystectomy”

A returning conference favorite is the “10 Hot Topics in General Surgery” session, during which Past-President E. Christopher Ellison, MD, FACS, and Regent Kenneth W. Sharp, MD, FACS, will moderate a wide-ranging, rapid-fire event that highlights important topics for general surgeons, including ultrasound diagnosis of inguinal hernia, endoscopic retrograde treatment for appendicitis, telesurgery, and more.

After a successful inaugural session in 2023, the Great Debates will again be a part of the Clinical Congress program—but now expanded into two sessions in order to provide extended presentation and discussion opportunities for expert panelists:

- “The Great Debate Session #1: Whole Blood Transfusion and Angioembolization in Pediatric and Adult Trauma: Life-Saving Adjuncts or Not Worth the Trouble?”
- “The Great Debate Session #2: The Challenges of Rib Fracture Fixation and Who Should Manage Specialty Surgical Complications”



Other clinical sessions of interest include a Panel Session where cases with “spectacular” significance will be presented and expert panel members will challenge each other regarding the care delivered and course of action taken; an overview of the impact of policy on the care of pregnant patients; sessions on cancer management of all types; and much more.

Many nonclinical but notable topics also will be represented, such as the intersection of a surgical career and parenthood, the role of surgeons in promoting sustainability in their practice, addressing mental health concerns in surgeons, and distinguishing medical students in a pass-fail system.

Beyond the Panel Sessions, attendees can expect to find much to learn and enjoy at Clinical Congress 2024.

## Prominent Named Lecturers

Each year, the Named Lectures are among the most popular elements of Clinical Congress. Eight lecturers, including internationally known surgeons and notable figures in healthcare, will share their perspectives on medicine and surgery.

The Martin Memorial Lecture, delivered immediately after the Opening Ceremony on Sunday, will be delivered by Lester Martínez-López, MD, MPH, the assistant secretary of defense for health affairs for the US Military Health System.

In his lecture, Dr. Martínez-López will share his unique insights as a military physician and current advisor to the secretary of defense and the undersecretary of defense for personnel and readiness to discuss “Combat Trauma: Lessons Learned and Future Challenges for Surgery.”

All lectures will be recorded and made available for on-demand viewing soon after the live presentations (see sidebar, this page).

## Special Sessions on Surgeon Education, Trauma Activations Fees

In addition to the Special Session on AI, the 2024 program will include a Special Session from the ACS Academy of Master Surgeon Educators® on the value of the surgical education group across the surgical disciplines. Panelists will discuss specific opportunities to engage and collaborate with the surgical specialties in order to recognize surgical educators and promote the value of continuing partnership.

The third Special Session, “Behind the Curtain of Trauma Activation Fees—Impact, Potential, and Peril for Modern Trauma,” will explore the the barriers and challenges related to trauma activation fees for modern trauma systems. These controversial fees are essential for trauma centers to cover costs necessary to meet readiness standards, but their reimbursement structure and impact on the business side of trauma are often opaque. This Special Session will examine the nature of trauma activation fees, their place in the

## 2024 Named Lectures



### Martin Memorial Lecture

*Combat Trauma: Lessons Learned and Future Challenges for Surgery*

Lecturer: Lester Martínez-López, MD, MPH



### Scudder Oration on Trauma

*Major Hepatic Injury: We Can Do Better*

Lecturer: Andrew B. Peitzman, MD, FACS



### John H. Gibbon Jr., Lecture

*Lung Cancer Revolution*

Lecturer: Jessica S. Donington, MD, MSCR, FACS



### Olga M. Jonasson Lecture

*Not on My Watch*

Lecturer: Jo Buyske, MD, FACS



### Charles G. Drake History of Surgery Lecture

*Dr. Charles B. Wilson: Cherokee Neurosurgeon*

Lecturer: Brian T. Andrews, MD, FACS, FAANS



### Distinguished Lecture of the International Society of Surgery

*Global Surgery—A Tale of Two Colleges*

Lecturer: Declan Magee, MBBS, FRCSI



### Herand Abcarian Lecture

*We Have Come a Long Way...Where Do We Go from Here?*

Lecturer: Ann C. Lowry, MD, FACS, FASCRS



### John J. Conley Ethics and Philosophy Lecture

*Surgical Professionalism and Autonomy in the 21st Century*

Lecturer: Mark C. Weissler, MD, FACS

trauma system, best practices for appropriate use of trauma activation fees, and how surgeons can engage to help shape the issue.

## Scientific Forum and More

The expansive Scientific Forum offers the latest high-quality, in-progress scientific and academic surgery reports. From research presentations to ePosters, the Scientific Forum offers researchers of all experience levels the opportunity to share their promising results in front of an audience of peers, mentors, and students.

Scientific Forum sessions take place Sunday through Tuesday and are arranged in a discipline-specific format (e.g., orthopaedic surgery, vascular surgery).

In addition, Video-Based Education Sessions will showcase detailed surgical procedures, while Meet-the-Expert Sessions and Town Hall Meetings will provide more informal learning experiences that will allow attendees to engage in conversations with surgeon thought-leaders and other colleagues. Additionally, the History of Surgery Poster Sessions will highlight the rich history of surgery.

In recognition of the ACS's commitment to surgeons in all stages of their careers, the Surgery Resident Program and Medical Student Program will return this year with information and education tailored to meet the unique needs of these cohorts.

## Networking and Social Events

Along with the wide spectrum of outstanding hands-on and didactic learning opportunities and timely discourse on relevant surgical topics, attendees also will have unparalleled access to peers.

“My favorite part of Clinical Congress is the interaction with surgeons of all practice patterns and specialties,” said Beth H. Sutton, MD, FACS, ACS President-Elect. “As a community surgeon, I get to interact with surgeons who are academic surgeons, who are professors and deans, who are on the cutting edge of research and everything that’s making our specialty move into the future. On the other side, I get to interact with surgeons from rural and small city practices. We all exchange ideas, get to know each other, and learn what each other needs.”

The capstone event for Clinical Congress is Taste of the City on Tuesday evening, which will showcase San Francisco’s world-class cuisine and provide impressive entertainment.

## Exhibit Hall Opportunities

Throughout the conference, attendees will be able to visit ACS Central, Innovation Theater, and more



than 125 companies that will display their products, innovations, and services. The Exhibit Hall provides an opportunity to explore the surgical marketplace by comparing products firsthand and planning purchases.

Two popular educational exhibits also will return this year. The ACS Surgical Metrics Project (see photo, this page) offers an opportunity for individual surgeons to learn more about the future of digital healthcare and optimize their practice through simulation, and the Surgical Ergonomics Hands-On Clinic features ergonomic coaches helping surgeons apply ACS Surgical Ergonomics Recommendations in a simulated environment to assess and reduce their physical burden in practice. Both stations had more than 500 attendees last year, and they are expected to be just as popular in 2024.



Access related video content online.





## CME Information

- For in-person registrants, up to 216.5 AMA PRA Category 1 Credits™ are available for attending live and on-demand sessions by February 24, 2025.
- For virtual registrants, up to 181.0 AMA PRA Category 1 Credits™ are available for viewing on-demand sessions by February 24, 2025.
- More than 40 sessions are designated as Credit to Address State Regulatory Mandates.
- More than 100 sessions are designated as Credit to Address Accreditation/Verification Requirements.
- 18 ticketed sessions offer Self-Assessment Credit.

## Plan Your Conference and Stay on Schedule

The content at Clinical Congress 2024 will cover a spectrum of surgical topics, and no matter how many sessions you plan to attend, the College offers several options to help you create a personalized Clinical Congress schedule.


The online, interactive Clinical Congress Program Planner is available now, and the mobile app will launch this fall.

In addition, the ACS will provide updates via email and the website, including through the daily *Clinical Congress News* that covers major events and interesting sessions.

## Register Today

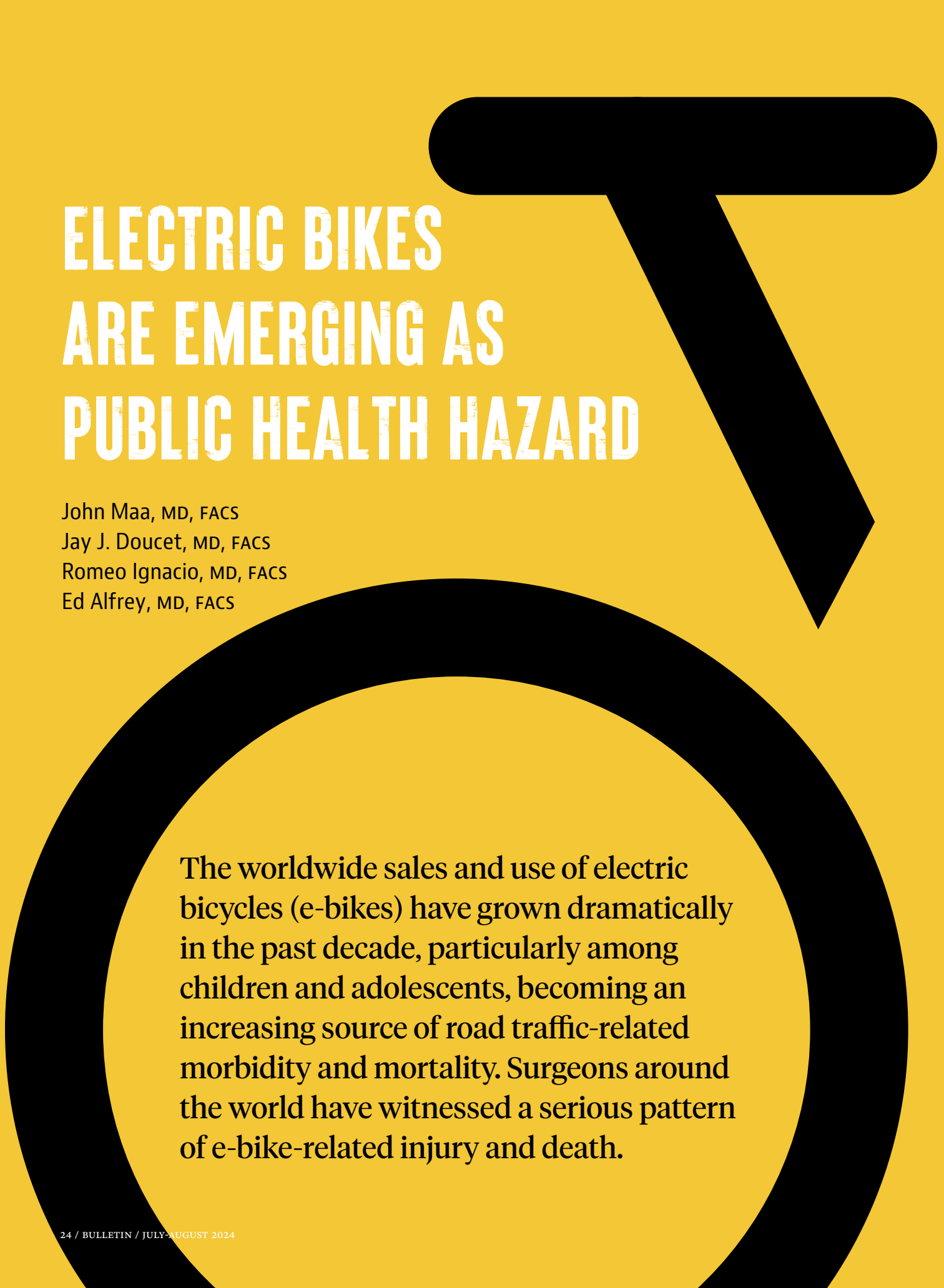
This hybrid event will again offer select content in a virtual, on-demand format, which will remain available for access through February 24, 2025.

Registration is now open—and the deadline to receive the early bird registration rate is August 26. Residents and medical students may register for free through October 9.

More information will be available in the coming months. Learn more and register today at [facs.org/clincon2024](https://facs.org/clincon2024). 







# **ELECTRIC BIKES ARE EMERGING AS PUBLIC HEALTH HAZARD**

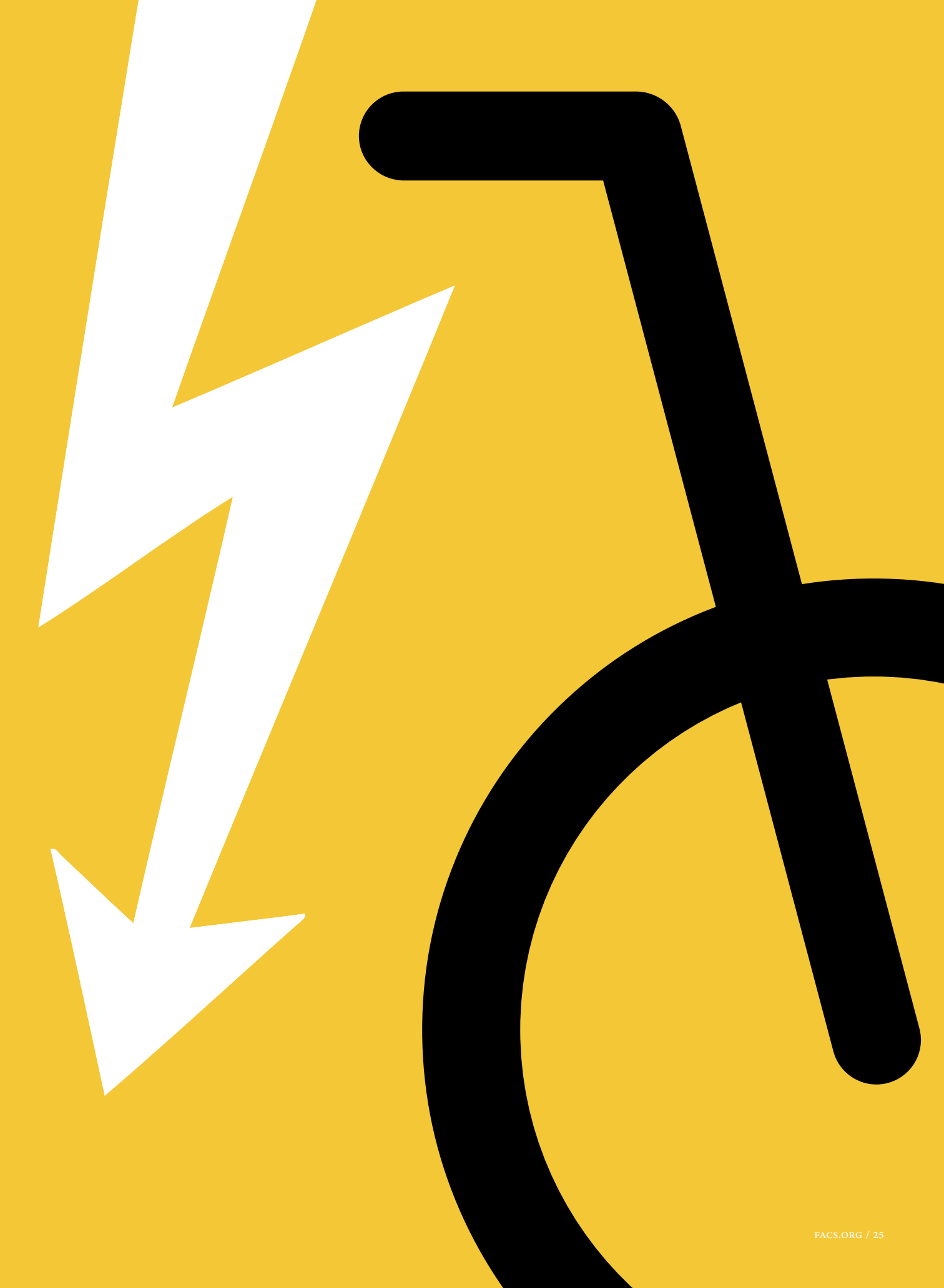
John Maa, MD, FACS

Jay J. Doucet, MD, FACS

Romeo Ignacio, MD, FACS

Ed Alfrey, MD, FACS

The worldwide sales and use of electric bicycles (e-bikes) have grown dramatically in the past decade, particularly among children and adolescents, becoming an increasing source of road traffic-related morbidity and mortality. Surgeons around the world have witnessed a serious pattern of e-bike-related injury and death.



E-BIKES ARE REGULATED quite differently around the world, and laws governing their use vary by individual states in the US. In some municipalities, they are banned; elsewhere, they are regulated as either bicycles, mopeds, motorcycles, or as motorized vehicles.

### History

The first patents for battery-powered bicycles were issued in France and the US in the late 19th century.<sup>1</sup> The French model used a lever system to power the bike rather than a pedal, and the original designs used batteries of lower efficiency compared to today.

The major advancement in the 20th century was the introduction of a pedal-assisted bicycle, also known as a pedelec—a low-powered e-bike that combines the rider’s pedaling and an electric motor. An electronic controller cuts power to the motor either when the rider is not pedaling, or when a certain speed (approximately 20 mph) is reached. Many jurisdictions classify pedelecs as bicycles rather than mopeds or motorcycles.

In 2024, there has been a rapidly growing combination of pedal-assist and throttle-style e-bikes, with a wide range of designs. Some more powerful e-bikes (Class 2) provide assistance regardless of whether the rider is pedaling and can be accelerated by throttle alone, thus more closely resembling mopeds. Another concern is that some controllers can be deactivated by a magnet or a series of keystrokes allowing speeds greater than 37 mph, which are comparable to motorcycles.

### Advantages of E-Bikes

Due to the increased speeds, e-bikes make it possible to commute longer distances in shorter time, as they quickly achieve relatively high speeds with minimal physical effort. E-bikes are particularly helpful when riding up hills or into strong headwinds.

E-bikes may represent an economical, environmentally friendly, and more sustainable mode of transportation that reduces greenhouse gas emissions compared to a car, and rising gasoline prices further increase the value of e-bikes.

### Disadvantages of E-Bikes

The higher e-bike speeds reduce reaction time for riders to avoid potential collisions. Attractive styling, naming, and bicycle-like appearance may not convey these risks to younger riders or parents. Special caution should be exercised in traffic and when traveling downhill, as the heavier battery can lead to faster acceleration and loss of control.

### Definition of an E-Bike, Classification in the US




E-bikes are part of a growing class of devices known as electric mobility devices, which include e-scooters, e-unicycles, e-skateboards, e-hoverboards, and the balance scooter Segway. The basic components of an e-bike are a battery, controller, and motor. Accessory components include the displays, throttles, and sensors.

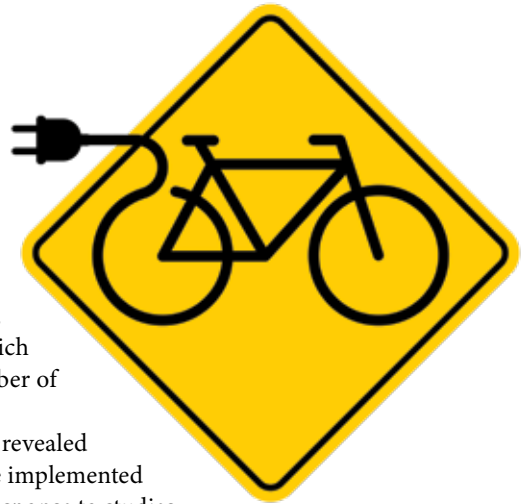
US federal regulations limit e-bikes to a motor with a power rating of less than 750 watts and require fully operable pedals.<sup>2</sup> Several nations set lower power limits ranging from 200 to 500 watts. However, conversion kits available online can alter many e-bikes by 1,000 watts or more to high-power models, thereby evading initial sale labeling requirements. These conversion kits are banned in some locations (i.e., the UK).

A major challenge for policymakers is the lack of a consistent classification around the nation or globe, with US state laws varying widely and sometimes in conflict. In some municipalities (i.e., Hong Kong) and colleges (i.e., some California state universities), e-bikes have been banned. Many nations restrict use to those who are 16 years and older. In Hawaii, registered e-bike owners must be 18 years old with a minimum age of 15 to operate an e-bike.

Regulations for helmet use also vary widely with

**TABLE 1. MANUFACTURER E-BIKE CLASSIFICATION**

|   | Class 1 | Class 2 | Class 3                 |
|---|---------|---------|-------------------------|
|  Presence of a throttle | No      | Yes     | No                      |
|  Helmet requirements    | No      | No      | Yes (in certain states) |
|  Maximum speed          | 20 MPH  | 20 MPH  | 28 MPH                  |



some states not specifying any helmet requirements for e-bike use. The variation in laws helps explain why the observed severity of injury differs across the US.

In the US, manufacturers currently classify e-bikes in three categories (see Table 1, page 26).

- *Class 1:* A pedal-assist e-bike equipped with a motor that provides assistance only when the rider is pedaling and ceases to provide assistance when the bicycle reaches 20 mph
- *Class 2:* Equipped with a motor that can be used exclusively to propel the bicycle with the use of a throttle, which also has a maximum speed of 20 mph
- *Class 3:* A pedal-assist e-bike equipped with a motor that provides assistance only when the rider is pedaling and ceases to provide assistance when the bicycle reaches 28 mph

California law requires manufacturers and distributors to permanently affix a label to each e-bike that includes the classification number, top speed, and motor wattage. Most e-bikes are manufactured overseas, and an estimated 990,000 were imported into the US in 2023, comparable to the 800,000 electric cars sold in 2022. In California, rebate programs seek to increase e-bike adoption to replace car usage.

The US Consumer Product Safety Commission (CPSC) recommends that children under age 12 should not operate any e-bike that travels more than 10 mph. The risk to children operating faster devices is acknowledged by many states that prohibit Class 3 e-bike operation by anyone younger than 16.

In 2023, the CPSC issued a statement highlighting that the existing classification is not part of its statutes.<sup>3</sup> To address the injuries and death occurring nationally, in spring 2024, the CPSC issued a call for public comment about rulemaking related to e-bike safety in the US.

## Worldwide Experience

The modern evolution of e-bikes began in Asia and were initially met with limited enthusiasm. Europe was the next early adopter, and numerous scientific articles described the novel e-bike dangers and risk of severe injuries (neurosurgical, orthopaedic, and maxillofacial), sometimes resulting from the poorly developed batteries. With increasing modifications

and safety features, e-bikes gained increasing popularity, especially in Asia, which hosts the largest number of e-bikes worldwide.

A worldwide review revealed several countries have implemented policies and laws in response to studies of injuries, especially in children. Laws regulating the limits of wattage, age, and areas of operation have been implemented. Notably, there is no unified legislation regarding e-bike power or speed limitations, and inadequate regulation likely contributes to the greater injury severity seen in e-bike riders compared to nonmotorized bicycles.

A 2017 study of 549 Israeli patients after e-bike crashes noted 65% suffered orthopaedic injuries.<sup>4</sup> E-bike riders are more likely to sustain fatal injuries after collision with a motor vehicle, which can partially be attributed to e-bike riders frequently sharing the road with cars and not using dedicated bicycle lanes.

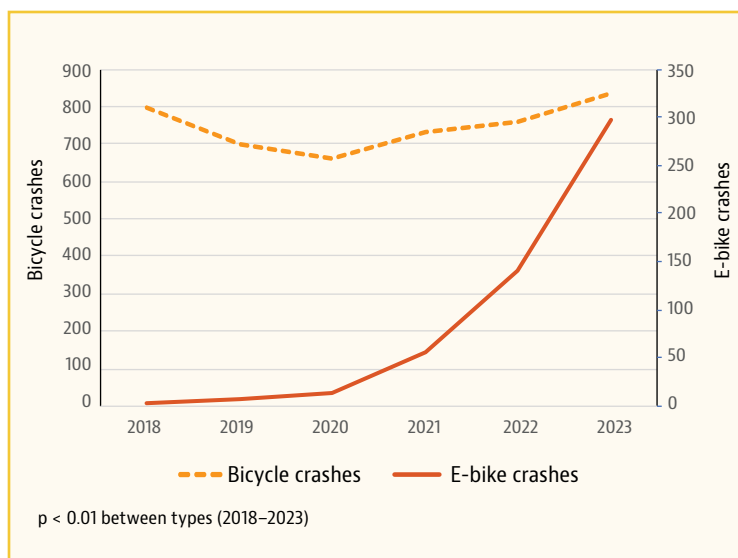
Pediatric populations appear to be particularly susceptible to serious injury, with a recent review noting 35% of all e-bike-related trauma occurs in patients under 18. A study of 561 Israeli pediatric patients noted higher rates of accidents involving motorized vehicles and greater incidence of head injuries, lower extremity trauma, and need for orthopaedic operations in the e-bike cohort, compared to conventional bicycles.<sup>5</sup> The greater proportion of head and neck injuries may be attributable to the larger head-to-body size and weight ratio in children.

A 2018 Dutch Level I trauma study of the 10-year history of bicycle accidents at their institution noted that e-bikes accounted for 2.9% of their accidents but represented 27.6% of the fatal bicycle accidents nationwide in 2017.<sup>6</sup> The Netherlands set the limit for e-bikes to 15 mph (routinely verified by police inspection) and set the minimum age of ownership to 16.

## US Experience

The US has seen two eras in e-bike injury—an early era with the majority of deaths in older patients who have the financial resources to purchase earlier generation and more expensive e-bikes but were

**FIGURE 1. BICYCLE AND E-BIKE CRASHES IN SAN DIEGO COUNTY**



than 10% of e-bike riders who crash and then present to the trauma center expired).<sup>7</sup> The e-bike injury pattern includes pelvic fractures, which are more commonly seen in motorcycle riders than bicyclists.

**San Diego**

A retrospective study of trauma center registries from one pediatric and five adult trauma centers in San Diego County were matched with collisions documented in the Statewide Integrated Traffic Records System (SWITRS) from 2018 to 2023. E-bike injuries increased between 2018–2023 (see Figure 1, this page).

In San Diego, the most common traffic violation (see Table 2, this page) for bicyclists was improper turns, but for e-bike riders, it was unsafe speed (18.6% versus 10.9%,  $p < 0.001$ ). Compared to bicycle injuries, injured e-bike riders are younger, more likely female, and their accidents occur in areas of higher socioeconomic status. Injury severity is higher in e-bike injuries, reflecting the injury mechanism.

**California**

A retrospective analysis of the SWITRS 2018–2023 database of e-bike injury collisions showed that e-bike incidents increased 18.6-fold over 5 years—from 184 to 3,429 events, rising from 1.5% to 4.9% of bicycle group accidents (see Figure 2, page 29). Mean SWITRS injury severity category of e-bike injuries was higher than bicycles ( $1.94 \pm 0.16$  versus  $1.74 \pm 0.16$ ,  $p < 0.001$ ).

**National**

According to the New York City Department of Transportation, bicycle deaths reached a 24-year high in New York City in 2023, as 30 people were killed on a bicycle, 23 of whom were riding e-bikes.<sup>8</sup> Three pedestrians also were killed by e-bike riders. Increased delivery services by e-bike, bidirectional bicycle lanes, riding in traffic, and a proliferation of e-bike city rentals have contributed to the increased injuries.

In February 2024, US researchers reported a dramatic 49-fold increase in e-bike riders with head trauma nationally over the past 5 years, which they attribute to a lack of safety regulations like mandatory helmets, speed limits for e-bikes, and age restrictions.<sup>9</sup>

Across the US, lithium-ion battery explosions in

**TABLE 2. TOP 3 VIOLATIONS IN SAN DIEGO COUNTY**

| Bike              |       | E-bike            |       |
|-------------------|-------|-------------------|-------|
| Improper turn     | 18.6% | Unsafe speed      | 10.9% |
| Auto right of way | 16.3% | Improper turn     | 9%    |
| Unsafe speed      | 16%   | Auto right of way | 5.5%  |

less skilled riding a bicycle. During the pandemic, sales of all bikes increased, and the closure of gyms and social distancing led some to purchase e-bikes as a safe option for outdoor exercise. In the second era, e-bike prices fell significantly and became more affordable, leading to a dramatic increase in pediatric use and injury.

**Marin County, California**

Marin is recognized as the birthplace of the modern mountain biking industry. For decades, MarinHealth Medical Center has been the primary hospital treating bicyclists injured across the county. In 2023, Marin surgeons began reporting the new hazards with e-bikes.

An analysis of the MarinHealth Medical Center trauma registry revealed that e-bike accident victims compared to regular bicyclists were nearly a decade older in age, more likely to require hospital admission, and had a higher risk of dying (more

e-bikes leading to fires have been reported. In 2023, 267 fires caused by lithium-ion batteries injured 150 and led to 18 deaths in New York City. Nevada’s Incline Village and the Port of San Diego banned e-bikes in areas where pedestrians travel.<sup>7</sup>

## Key Decision Points Surrounding E-Bike Use in the US

Policymakers in the US have several key decision points:

### Extending Helmet Laws

Helmet mandate legislation is effective, with an estimated 20% reduction in head injuries and a larger effect with more severe injuries. Any person under age 17 is required to wear a helmet when riding bikes in California, and all Class 3 e-bike riders, regardless of age, must wear a helmet. Law enforcement should be supported to enforce existing helmet laws, as it can be difficult to distinguish e-bike classes from afar. Requiring the use of motorcycle helmets that protect both the skull and neck should be considered for faster e-bikes.

### Enforcing Speed and Rider Limits

Several devices are marketed to bypass existing speed restrictions. “Tuning kits” can deactivate the speed limiter, turning a lawful e-bike into a nonstreet-legal motorcycle or moped. E-bike manufacture and product safety standards should be strengthened to prevent disabling the speed limiter, with fines for removing speed regulators. Restrictions on the number of individuals allowed on a single e-bike should be strengthened, as multiple riders are hazardous.

### Changing Nomenclature

New “multiclass” e-bikes can operate across multiple e-bike classes. “Out of class” e-bikes also exist with motors more than 750 watts that do not conform to the current manufacturer classification and reach speeds of motorcycles. Perhaps using the names “e-moped” or “e-motorcycle” would provide greater clarity to purchasers about the risks of these vehicles.

### Requiring Licenses for E-Bike Operation

Licensing and registration requirements for e-bike users under the age of 18 (or for all ages) are under consideration.

### Improving Road Safety Design

Infrastructure and road safety are central. Urban design can promote bicycle lanes and safe routes for e-bikes to travel. An unanswered question is the role of traffic accidents in the injuries being witnessed, and what steps to promote road safety should be prioritized. Should e-bikes travel on sidewalks and boardwalks or in streets, in protected bike lanes, and be allowed on multi-use trails and unpaved roads in open spaces?

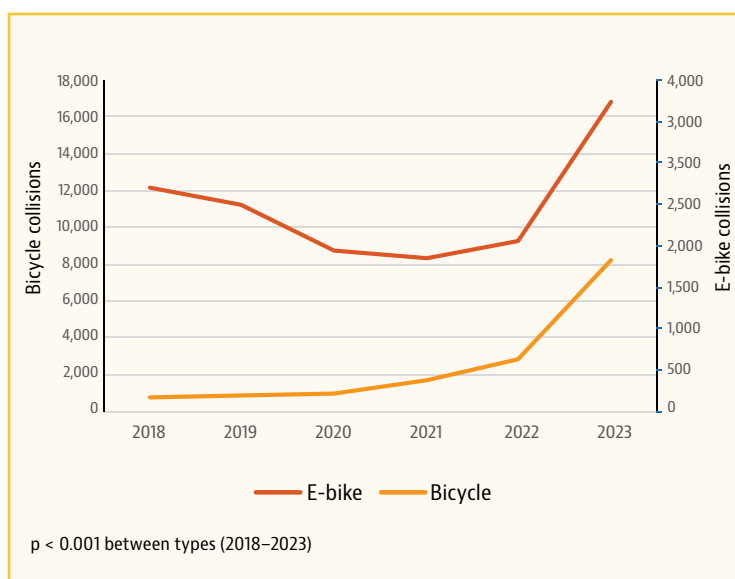
### Increasing Education and Awareness

E-bikes are commonly sold in bike shops or online without special license or training requirements. Regulations and community understanding of risks have not kept pace with the surge in use, and greater public education efforts are necessary. First-time violators could undergo special education or take an approved safety course when they receive citations for riding against traffic, on sidewalks, without helmets, and so on.

### Standardizing Laws

The wide variability in international and state laws should be addressed to promote rider safety and assist law enforcement. Currently, there is confusion as rules differ across the three different categories of e-bikes and across adjacent communities.

**FIGURE 2. ANNUAL CRASH RATES IN CALIFORNIA**



## California ACS Surgeon Advocacy and AB 1778

In 2021, the death of a 12-year-old after a Class 2 e-bike crash (while a helmeted passenger) catalyzed a statewide discussion of e-bike hazards. In August 2022, the city of Carlsbad approved an emergency declaration on e-bike safety after two deaths in a 17-day period. In June 2023, the city of Encinitas declared a local state of emergency regarding e-bikes after the death of a 15-year-old. Later in 2023, SB 381 by California Senator David Min commissioned the Mineta study to investigate e-bike policy and inform efforts to improve the safety of e-bike users.

In December 2023, Northern California ACS members joined Marin Assemblyman Damon Connolly at the press conference when AB 1778 was introduced. This legislation will create an e-bike enforcement pilot program in Marin County to prohibit a person under the age of 16 from operating a Class 2 e-bike, to align with Class 3 e-bike laws.

Current California law does not impose an age restriction to operate a Class 2 e-bike, which may help explain the rise in serious injuries and deaths. In 2024, the three California ACS Chapters joined as sponsors of AB 1778 and testified in support before the Senate Transportation Committee. The bill passed unanimously. Three other e-bike bills are currently under consideration in California (see Table 3, page 31).

A review of the Congressional legislative database by the ACS Division of Advocacy and Health Policy revealed that a majority of proposed federal legislation supports e-bikes, by designating areas in national forests where their use is permitted, extending grants for e-bike share programs, or creating tax credits for individual purchase.

One bill seeks to strengthen safety standards by preventing the evasion of speed limitations through a switch or manufacturer-provided software. A review of the statewide legislative database revealed that as of April 2024, New Hampshire, New Jersey, and New York are considering legislation to require e-bike registration. Florida and New York are considering licensure, and some states are considering insurance and age restriction requirements similar to California.

### Next Steps for Surgeons

Surgeons can help prevent e-bike injuries by:

- Catalyzing public education safety campaigns
- Assembling scientific evidence to inform policymakers
- Speaking about safety during ACS state advocacy days
- Working with the ACS to update its Statement on Bicycle Safety and the Promotion of Bicycle Helmet Use<sup>10</sup>

#### Left:

Dr. John Maa, alongside e-bike accident patient Amelia Stafford, testifies before the California Senate Transportation Committee.

#### Right:

Marin Supervisor Mary Sackett and California Assemblymember Damon Connolly join ACS Northern California Chapter surgeons Drs. John Maa and Edward Alfrey (from left to right) when AB 1778 was introduced.





**TABLE 3. CALIFORNIA BILL SUMMARY**

|                |   |
|----------------|---|
| <b>SB 1271</b> | Will create battery standards for e-bikes and require a label identifying the highest class of which it is capable (Orange County)                |
| <b>AB 2234</b> | Would authorize the County of San Diego to prohibit individuals under the age of 12 from riding a Class 1 or 2 e-bike (Encinitas)                 |
| <b>AB 1774</b> | Would prohibit the sale of a product to modify the speed capability of an e-bike to exceed existing classifications (Orange County)               |
| <b>AB 1778</b> | Will create a Marin County e-bike enforcement pilot to prohibit a person under the age of 16 years from operating a Class 2 e-bike (Marin County) |

- Collaborating with scientific and epidemiology partners, including the American Academy of Pediatrics, Centers for Disease Control and Prevention, and public health officials
- Working with policymakers, elected officials, Congress, and officials such as Transportation Secretary Pete Buttigieg

The rise in e-bike use, especially among children and adolescents, presents a significant public health challenge due to the associated increase in injuries and fatalities. The lack of uniform regulation and enforcement across jurisdictions exacerbates these risks. While e-bikes offer economic and environmental benefits, their higher speeds and potential for severe injuries necessitate urgent action. Policymakers must address key issues such as helmet mandates, speed regulations, and public education to enhance safety. And importantly, surgeons and public health officials play a crucial role in advocating for these changes to mitigate the risks and ensure safer e-bike use globally. **B**

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#### References

1. Really Good E-Bikes. History of electronic bikes: Where did e-bikes come from? July 2022. Available at: <https://reallygoodebikes.com/blogs/electric-bike-blog/history-of-electric-bikes#>. Accessed June 6, 2024.
2. US Federal Register. Electric bicycles; advance notice of proposed rulemaking; request for comments and information. Available at: <https://www.federalregister.gov/documents/2024/03/15/2024-05472/electric-bicycles-advance-notice-of-proposed-rulemaking-request-for-comments-and-information>. Accessed June 6, 2024.
3. Yobbi D. CPSC: The industry's 3 class e-bike framework is not part of our statutes. *Bicycle Retailer*. March 1, 2023. Available at: <https://www.bicycleretailer.com/industry-news/2023/03/01/cpsc-3-class-e-bike-framework-not-part-our-statutes#.ZAm2YXZBxPZ>. Accessed June 6, 2024.
4. Tenenbaum S, Weltsch D, Bariteau Jason, Givon A, et al. Orthopaedic injuries among electric bicycle users. *Injury*. 2017;48(10):2140-2144.
5. Avrahamov-Kraft E, Yulevich A, Sweed Y. Pediatric electrical bicycle road accidents. *Eur J Pediatr Surg*. 2022;32(1):120-126.
6. de Guerre LEVM, Sadiqi S, Leenen LPH, Oner CF, et al. Injuries related to bicycle accidents: An epidemiological study in The Netherlands. *Eur J Trauma Emerg Surg*. 2020;46(2):413-418.
7. Maa J, Alfrey E. Marin Voice: Trauma surgeons make plea for more e-bike safety. *Marin Independent Journal*. December 6, 2023. Available at: <https://www.marinij.com/2023/12/06/marin-voice-trauma-surgeons-make-plea-for-more-e-bike-safety/>. Accessed June 6, 2024.
8. Collins K. Why bicycle deaths in New York City are at a 24-year high. *New York Times*. March 7, 2024. Available at: <https://www.nytimes.com/2024/03/05/nyregion/nyc-cyclist-deaths-ebike.html#>. Accessed June 6, 2024.
9. Fernandez AM, Li KD, Patel HV, et al. Electric bicycle injuries and hospitalizations. *JAMA Surg*. 2024;159(5):586-588.
10. American College of Surgeons. Statement on Bicycle Safety and the Promotion of Bicycle Helmet Use. March 15, 2023. Available at: <https://www.facs.org/about-acs/statements/statement-on-bicycle-safety-and-the-promotion-of-bicycle-helmet-use/#>. Accessed June 6, 2024.

# ACS Fosters Workplace Support for Surgeons Building Careers and Families

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## Compared with the general US population, female surgeons are three times more likely to report fertility challenges and six times more likely to use assisted reproductive technology (ART).<sup>1</sup>

IN A RECENT SURVEY OF 859 surgeons, 25% of female surgeons required ART to become pregnant, and 42% reported a prior pregnancy loss—rates that are 2–3 times higher than the national average.<sup>2</sup> Overall, female surgeons in that study were almost twice as likely to have a major pregnancy complication compared with female nonsurgeon partners (48.3% versus 27.2%).<sup>2</sup>

One of the primary reasons for these adverse outcomes may be the choice by many female physicians to delay childbearing until after medical training, which for most surgeons is not until at least age 30. This reality is corroborated by a survey of more than 4,500 physicians from 2022 that demonstrated the median age of first birth for women surgeons was 32 years compared with 23 years in the general population.<sup>3</sup> Unfortunately, it is well established that advanced maternal age is an independent risk factor for infertility, major pregnancy complications, and congenital anomalies, with risk increasing significantly after the

age of 35 (see Figure 1, page 35).

In addition to age-associated risks, female surgeons encounter numerous other obstacles to a healthy pregnancy. Rotating and night shifts, as well as working more than 40 hours per week, are associated with adverse pregnancy outcomes.<sup>4,5</sup> A recent systematic review and meta-analysis of these factors identified a 10% increase in the rate of preterm delivery for women working more than 55.5 hours per week,<sup>5</sup> and another large survey of female physicians demonstrated a 1% increase in major pregnancy complications with each additional hour worked per week.<sup>3</sup>

Additionally, surgeons are routinely exposed to known occupational reproductive hazards such as radiation, bloodborne pathogens, surgical smoke, and toxic chemicals that likely have unmeasurable effects on pregnancy outcomes.<sup>6</sup>

A lack of standardized policies and institutional support contributes to surgeons waiting to have children and/or feeling uncomfortable asking for accommodations

during pregnancy. Inadequate parental leave, financial strain, and concerns about burdening colleagues further compound the hurdles surgeons face in building their families. These challenges are experienced most acutely by trainees who may not feel empowered to self-advocate for workplace support. It is paramount that surgical culture evolves to better support our colleagues so that we can mitigate the risks of adverse pregnancy outcomes and reduce the obstacles to building a family for future surgeons.

As leaders in the surgical community, the ACS established the Board of Governors (BoG) Infertility & Pregnancy Complications Task Force (ACS BoG IPC Task Force) to study the gaps in workplace support for pregnancy, parental leave, and lactation for surgical trainees and practicing surgeons.

The ACS BoG IPC Task Force focused on the importance of workplace support for infertility, pregnancy, parental leave, and lactation for surgical trainees and practicing surgeons. The group

was charged with providing guidance to surgical training programs and departments with the goal of promoting the well-being of surgeons, and thus created two resources, described in this article: Statement on the Importance of Workplace Support for Pregnancy, Parental Leave, and Lactation for Surgical Trainees and the separate Statement for Practicing Surgeons, both of which were approved by the Board of Regents during its February 2024 meeting. The statements subsequently were endorsed by the American Board of Surgery (ABS), American Board of Colon and Rectal Surgery, American Board of Neurological Surgery, American Board of Oral and Maxillofacial Surgery, American Board of Plastic Surgery, American Board of Thoracic Surgery, and Society of Gynecologic Surgeons.

The ACS statements provide frameworks for trainees and practicing surgeons who are planning families and include support for ART and/or prenatal medical care, clinical duty adjustments during the third trimester, parental leave of appropriate paid duration, and lactation support. Additionally, the list of resources for family planning was developed as a compilation of valuable external references on these topics (see Table 1, page 36). Additional resources are in development to aid surgeons and surgical trainees as conversations

on these topics arise, especially with their respective department/division chairs, program directors, and other institutional leaders.

### **Summary of Existing Society and Board Policies**

As the household structure in the US evolves and more women are in the workplace, the need for comprehensive legislation for paid parental leave becomes increasingly apparent. Despite changing societal norms and the wealth of data highlighting the benefits of paid parental leave, such legislation remains conspicuously lacking. Paid parental leave, particularly when extending beyond recovery from childbirth, is associated with improved family bonding, decreased postpartum depression, longer breastfeeding duration, retention of women in the workforce, increased employee morale, and gender pay equity.<sup>7</sup>

However, the US remains the only developed country lacking a paid parental leave program, leaving families without job protections, health insurance benefits, and wages. While the Family and Medical Leave Act provides up to 12 weeks unpaid leave for eligible employees (see Table 1A, page 36), currently 16 states also have adopted paid leave policies, although many still require a combination of short-term disability, paid time off, sick leave and/or vacation. There is no federal law ensuring

comprehensive accommodation for pregnant and postpartum workers. The Americans with Disabilities Act only recently expanded to include temporary impairments such as those related to pregnancy.

The paucity of parental leave policies nationally and statewide is not due to a lack of data demonstrating its benefit. Paid parental leave that provides additional time for bonding beyond recovery from childbirth has been linked to improved vaccination rates, better family connection, retention of women in the workforce, and equalized gender pay.<sup>7</sup>

Many surgical societies have issued statements supporting surgeons and trainees choosing to build their families (see Table 1A, page 36). These statements support more flexibility and autonomy for surgeons and surgical trainees in making life decisions regarding family and parental leave. The organizations emphasize that a surgical career should not preclude an individual's choice to be a parent, and the decision to have children should be free from criticism. There should be unanimous support for healthy pregnancy and outcomes without fear of repercussions or bias toward those surgeons who choose to have children.

Broad support for the following exists: paid parental leave of at least 6 weeks without extending training, inclusive of birthing

## Figure 1. Infertility and Pregnancy Complications in Surgeons

### Female surgeons experience higher rates of infertility



Rates of using assisted reproductive technologies and incidence of pregnancy loss are 2-3 times higher than the general population.

### Female surgeons experience higher rates of pregnancy complications



Working 40 hours per week, rotating shifts, and night shifts are associated with adverse pregnancy outcomes, including preterm delivery and miscarriage.

### Surgeons face unique workplace exposures that can affect pregnancy outcomes



Exposure to occupational reproductive hazards, including radiation, bloodborne pathogens, surgical smoke, and toxic chemicals can impact pregnancy.

### Surgical trainees face challenges for family planning, pregnancy, and return to work



Lack of formalized institutional policies make it difficult for trainees to ask for workplace accommodations, parental leave extensions, or lactation and childcare support.

### Considerations for surgeons pursuing surrogacy or adoption are lacking



Alternate pathways for family-building are often overlooked in policies that can be exclusionary for surgeons navigating parental leave in these specific circumstances.

and nonbirthing parents, as well as parents through fostering, adoption, or surrogacy; extensions to leave according to institutional and individual policies, which should not be a factor in career progression or promotion; and adjustments in duty hours and responsibilities after 30 weeks gestation, lactation support for breastfeeding surgeons, including hygienic lactation space and flexible breaks to express milk without bias or penalty.

The ABS has acknowledged the need to take time away from training for certain significant life events, including a new child or other personal matters such as the care of a seriously ill family member.<sup>8</sup> The ABS requires 48 weeks of clinical activity for each year of residency with the remaining 4 nonclinical weeks used for vacation, conferences, and interviews. However, there is flexibility to allow the 48 weeks to be averaged over the first 3 years and the last 2. There also are options to extend the final year of training or to complete 5 years of training over a 6-year period if prior approval is obtained. In addition, the Accreditation Council for Graduate Medical Education (ACGME) now requires sponsoring institutions to have policies that include a minimum of 6 paid weeks off for medical, parental, and caregiver leave.<sup>9</sup>

### Unique Challenges for Surgical Trainees around Family Planning

Surgical training is long and arduous, with unique challenges for surgeons choosing to start a family. Surgical trainees routinely work rigid schedules with long hours (more than 40-hour weeks and up to 24-hour calls), night work, and potential exposure to occupational reproductive hazards.<sup>6</sup> Since workload and patient care are shared among colleagues in a training program, there is a sense of team responsibility and fear of overburdening colleagues with undue work. Additionally, trainees are more likely to fear negative repercussions due to the hierarchical structures and power differentials inherent to surgical training.

Given these concerns, many trainees delay childbearing altogether during residency and fellowship. It can be difficult to obtain time off to pursue ART or attend obstetrical appointments. During pregnancy, trainees often do not feel empowered to ask for clinical duty adjustments due to fear of negative repercussions and guilt about burdening colleagues despite evidence demonstrating associations of increased obstetric complications and preterm birth with long working hours and night work.<sup>3-5</sup>

After delivery, trainees face challenges receiving appropriate

**Table 1. Resources for Family Planning**

## 1A. Family and Parental Leave

### Parental Leave Policies



- US Department of Labor Family and Medical Leave Act
- Accreditation Council for Graduate Medical Education Resident Leave Policy
- American Board of Surgery Parental Leave Policy for General Surgery Trainees
- The American College of Obstetrics and Gynecology (ACOG) Paid Parental Leave Policy
- Parental Leave Policies in Graduate Medical Education: A Systematic Review (published in *The American Journal of Surgery*)

### Statements by National Organizations



- ACS Statement on the Importance of Workplace Support for Pregnancy, Parental Leave, and Lactation for Surgical Trainees
- ACS Statement on the Importance of Workplace Support for Pregnancy, Parental Leave, and Lactation for Practicing Surgeons
- Association of Women Surgeons (AWS) Maternity Leave Policy for Surgical Residents
- AWS Comprehensive Initiative for Healthy Surgical Families during Residency and Fellowship Training

### Examples of Institutional Parental Leave Policies



- Northwestern Resident Parental and Family Leave Policy
- University of Utah Urology Residency Leave Policy
- Massachusetts General Hospital General Surgery Residency Guide for Expectant and New Parents

## 1B. Breastfeeding

### Statements by National Organizations



- American Academy of Pediatrics Policy Statement on Breastfeeding and the Use of Human Milk
- Optimizing Support for Breastfeeding as Part of Obstetric Practice. Committee opinion from ACOG Breastfeeding Expert Work Group and Committee on Obstetric Practice
- American Academy of Family Physicians Policy Statement on Breastfeeding and Lactation for Medical Trainees

## 1C. Fertility Preservation

### Statements by National Organizations



- American Medical Association Statement on Support for Fertility Preservation for Trainees
- An American Society for Reproductive Medicine (ASRM) Ethics Committee opinion on planned oocyte cryopreservation for women seeking to preserve future reproductive potential

## 1D. Infertility/Assisted Reproductive Technology

### General Information



- ASRM
- Society for Assisted Reproductive Technology
- Fertility Out Loud
- Fertility IQ
- Evidence-Based Outcomes after Oocyte Cryopreservation for Donor Oocyte In Vitro Fertilization and Planned Oocyte Cryopreservation: A Guideline from ASRM

### Insurance Coverage Resources



- Summary of State and Territory Infertility Laws

parental leave. Despite recent increases in the duration of family leave offered by the ABS and the requirement for at least 6 weeks of paid leave by the ACGME, trainees often are hesitant to extend their time off due to the desire to complete their training program on time.

Returning to work presents additional challenges, including limited access to appropriate time and space for lactation/breastfeeding and difficulty finding affordable childcare. Long work hours and the need to make up missed call further compounds time demands and stress for trainees in the postpartum period, with potentially adverse effects on maternal mental health and well-being. Postpartum depression is relatively common, and timely, confidential, and accessible support is essential.

Although there is widespread support from surgical societies, there often is a lack of individualized support at institutional and program levels with wide variation in family leave. Few policies detail any support beyond parental leave. Some institutions, such as the Massachusetts General Hospital General Surgery Residency Program, have instituted comprehensive parental support policies, addressing accommodations for preconception and family planning, pregnancy loss,

pregnancy, and postpartum period, lactation and childcare resources, and access to mentors. These exemplary programs serve as models for other surgical residencies and fellowships (see Table 1A and 1B, page 36).

### **Fertility Preservation and Egg Freezing**

Oocyte and/or embryo cryopreservation was initially used to preserve future fertility in patients undergoing gonadotoxic treatments. Since 2012—when in vitro fertilization (IVF) and pregnancy rates with cryopreserved oocytes were shown to compare favorably with those with fresh oocytes—this technology has been increasingly used by women to augment future fertility or to delay childbearing. Given the choice to delay pregnancy until after the completion of training and knowing the risks associated with advanced maternal age, many young surgeons now opt to pursue oocyte or embryo cryopreservation to safeguard their future fertility options.

Oocyte cryopreservation results in pregnancy and live birth rates similar to those using fresh oocytes and is supported by the American Society for Reproductive Medicine pregnancy as a means to enhance women's reproductive autonomy (see Table 1C and 1D, page 36). These recommendations caution

against viewing this procedure as a guarantee of future fertility, as there are insufficient data regarding long-term and age-related outcomes.

Similar to IVF and other forms of ART, oocyte cryopreservation and storage are rarely covered by insurance and can cost more than \$20,000. Since the procedure is mostly pursued by surgeons who are still in training, the out-of-pocket cost can represent an insurmountable financial burden. Some institutions and companies may offer discounts to trainees but the out-of-pocket cost usually is still substantial. While coverage should ultimately be provided by insurance companies for fertility-related procedures, this change is unlikely to occur anytime soon. As such, additional support from institutions, departments, and other external sources may be needed to fill the gap so that oocyte or embryo cryopreservation remains an option for surgeons who would otherwise be unable to afford it.

### **Special Considerations for Adoption and Surrogacy**

For many reasons, an individual may choose to build their family through adoption or surrogacy. Single parents, same-sex couples, and those who have undergone unsuccessful fertility treatments are more likely to choose these options. Among survey respondents who used adoption

## Figure 2. Best Practices Guidelines for Family Planning and Childbearing



Provide at least 6 weeks of parental leave after vaginal delivery and at least 8 weeks after Cesarean section for birthing parent.



Provide at least 6 weeks for nonbirthing parent.

### 1 Enable access to family planning and prenatal appointments

Allow flexibility in scheduling prenatal and family planning appointments, including related to fertility preservation and assisted reproductive technology, and provide adequate time off for infertility management.



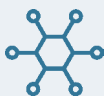
### 2 Limit length of operative cases and call during third trimester of pregnancy

Consider accommodations to operative schedule and cessation of overnight calls and 24-hour shifts in the third trimester.



### 3 Minimize exposure to known reproductive hazards

Provide adequate protection and control environmental factors when exposures are anticipated and allow for modifications.



### 4 Provide easy access to lactation facilities and support for expressing breast milk

Allow breaks for breastfeeding during the workday and provide a private, safe, and convenient place for pumping and storing milk.



### 5 Work toward cultural change around childbearing in the surgical field

Parental leave should not be a factor in decisions regarding career progression, access to leadership, and research or academic promotion.



or surrogacy, almost 20% were in same-sex relationships, and another 22% pursued these options after undergoing unsuccessful attempts at ART.<sup>2</sup>

Like ART, adoption and surrogacy can be costly. In the same study, 60% of surgeons who used adoption or surrogacy reported spending more than \$40,000.<sup>2</sup> Since these processes are also generally not covered by insurance, most of the cost must be paid out of pocket.

Surgeons who pursue adoption or surrogacy represent less than 5% of those who desire parenthood. Given that few surgeons expand their family through these methods, it is not surprising that these individuals often lack time for parental leave.<sup>2</sup> Because these pathways to building a family are less common and may be overlooked, it is critical that policies explicitly address and include these options.

#### Updated ACS Statements and Resources

The ACS is dedicated to “improving the care of the surgical patient and safeguarding standards of care in an optimal and ethical practice environment,” as outlined in the organization’s mission statement. However, the current work environment has not been optimal for surgeons who have suffered from increased rates of infertility, pregnancy complications, and lack of resources and

support for family planning.

The ACS is committed to addressing these concerns. To that end, the BoG IPC Task Force includes surgeons in academia and private practice at varying career levels and roles to ensure diverse viewpoints were considered when developing the new statements and resources (see Table 2, online version of the article only).

Specifically, the revised statements outline best practices for parental support in training programs and for surgeon employers (see Figure 2, this page), and the list of resources for family planning provides useful information for expectant surgeons, and surgical residents (see Table 1, page 36).

Adoption of these recommendations alleviates the burden on trainees or junior-level surgeons from having to self-advocate in a traditionally hierarchical profession. These policies should be extended to all parents, regardless of approaches to childbearing, adoption, or surrogacy.

The ACS BoG IPC Task Force supports the message that surgical trainees and surgeons seeking to start a family should feel empowered to request support or accommodations from their training program or employer, and they should not face barriers related to inadequate time and resources or challenges resulting from a lack of understanding or cooperation. Seamless integration



# The current work environment has not been optimal for surgeons who have suffered from increased rates of infertility, pregnancy complications, and lack of resources and support for family planning.

of pregnancy and family planning into surgical training and surgical practice is necessary for the continued well-being and overall support of the surgeon.

In the last few decades, there has been a concerted effort to better understand the challenges faced by surgical trainees and practicing surgeons as they navigate the journey of building a family—from infertility struggles to pregnancy complications to returning to work postpartum.

Not only do the statistics related to these experiences mandate action, but the lack of clear and consistent policies aimed at supporting the needs of the modern surgical family suggests that there is a pressing need for change. Without ongoing dialogue and dynamic policy creation and assessment, the challenges faced by surgeons will persist, resulting in burnout and other adverse outcomes when surgeons are faced with pregnancy-related discrimination.<sup>10</sup>

Starting from training and extending throughout professional practice, the implementation of formalized policies and supportive infrastructure are crucial to promoting a culture of support for childbearing, in which aspiring and current parents can advocate for their needs without fear of repercussions or workplace discrimination.

The ACS BoG IPC Task Force represents a pivotal national

initiative to formally address current data regarding infertility and pregnancy complications in the surgical workforce, supports educational resources to mitigate risk factors for obstetric complications in surgeons, and advocates for financial and workplace support for parenthood planning. **B**

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## References

1. Phillips EA, Nimeh T, Braga J, Lerner LB. Does a surgical career affect a woman's childbearing and fertility? A report on pregnancy and fertility trends among female surgeons. *J Am Coll Surg.* 2014;219(5):944-950.
2. Atkinson RB, Castillo-Angeles M, Kim ES, et al. The long road to parenthood: Assisted reproduction, surrogacy, and adoption among US surgeons. *Ann Surg.* 2022;275(1):106-114.
3. Lai K, Garvey EM, Velazco CS, et al. High infertility rates and pregnancy complications in female physicians indicate a need for culture change. *Ann Surg.* 2023;277(3):367-372.
4. Zhu JL, Hjollund NH, Andersen AM, Olsen J. Shift work, job stress, and late fetal loss: The National Birth Cohort in Denmark. *J Occup Environ Med.* 2004;46(11):1144-1149.
5. Cai C, Vandermeer B, Khurana R, et al. The impact of occupational shift work and working hours during pregnancy on health outcomes: A systematic review and meta-analysis. *Am J Obstet Gynecol.* 2019;221(6):563-576.
6. Anderson M, Goldman RH. Occupational reproductive hazards for female surgeons in the operating room: A review. *JAMA Surgery.* 2020;155(3):243-249.
7. Burtle A, Bezruchka S. Population health and paid parental leave: What the United States can learn from two decades of research. *Healthcare.* 2016;4(2):30.
8. American Board of Surgery. General Surgery Leave Policy: Policy governing leave during residency training for surgeons applying for initial board certification in general surgery. Available at: <https://www.absurgery.org/resources/abs-policies/policy-leave/>. Accessed May 30, 2024.
9. Accreditation Council for Graduate Medical Education. Resident Leave Policy Available at: <https://www.acgme.org>. Accessed May 30, 2024.
10. Huang R, Hewitt DB, Cheung EO, et al. Burnout phenotypes among US general surgery residents. *J Surg Educ.* 2021;78(6):1814-1824.



Dr. Tyler Hughes

# ACS Communities Platform Turns 10

Tyler G. Hughes, MD, FACS, and Jerry Schwartz

THE INTERNET was initially conceived by the Defense Advanced Research Projects Agency in the late 1950s. The purpose was to develop a communications system that would be difficult to disrupt in the event of a nuclear war.

By the early 1970s, university students could use an early version of the internet (known as the Advanced Research Projects Agency Network), but it was not user friendly

and was text-based only. It was not until 1993 when what we would recognize as the internet became publicly available.

Like other advances that affect civilization in a major way, this platform grew far beyond those first steps and is now used in every spectrum of human endeavor. Medicine is no different. Because of the internet and digital technology, printed textbooks and “snail mail” are reaching obsolescence.

Google and artificial intelligence can now answer almost any question in moments and with reasonable accuracy. To lose one’s smartphone is to be cut off from the rest of the world.

George F. Sheldon, MD, FACS, was among the first in medicine to recognize the incredible power and implications of the internet on surgeons, and therefore, the ACS. Through his drive and vision, the ACS web portal was born. The portal provided ACS

members with a single sign-on, personalized gateway to the internet.

Launched in 2006, the portal contained “communities” for specialties, subspecialties, chapters, and demographic groups, as well as for various interests. Communities featured core content, Really Simple Syndication known as RSS feeds, reports/reviews/editorials, surgical videos, links to related websites and podcasts, important meeting dates, algorithms, and more. Each user had a My Page with tabs for My Profile, My CME, My Chapter, My Cases, and My Bookmarks.

By the time smartphones were introduced in 2007, portals became even more accessible, but members still needed to log in to view content. Around this time, Philip R. Caropreso, MD, FACS, began using listserv technology for the Iowa Chapter of the ACS, and this subsequently evolved into a national listserv for rural surgeons.

Rural surgeons used both the portal and listserv to communicate about surgery, which was useful in relieving

their professional isolation. As “internet 2.0” took hold, David B. Hoyt, MD, FACS, ACS Executive Director at the time, saw the potential for joining surgeons together to take advantage of their colleagues’ knowledge and experience and initiated the search for a vendor that could connect members with each other in a true two-way fashion. His vision included hearing the thoughts and needs of members directly to help steer educational initiatives, quality programs, and leadership.

After identifying the College’s core platform needs, Dr. Hoyt and his team chose from a handful of vendors. Tyler G. Hughes, MD, FACS, former community administrator for the ACS web portal’s Rural Surgery Community, was selected to serve as Editor-in-Chief. Not only would the ACS Communities platform be mobile-friendly and available via an app, but it also would be delivered in real-time or daily digest emails according to user preference.

On August 6, 2014,

*acscommunities.facs.org* successfully launched. The number of communities quickly expanded; today, there are more than 100 communities, each with its own discussions, library, events, and announcements. Communities are both open (any member may join or leave) and closed (viewable only to members of that community), and many have a community administrator(s) to keep things active.

Since its launch, the platform received nearly 6.3 million pageviews, and more than 50,000 members of the College have agreed to the site’s terms of use. In all, 6,825 unique contributors have posted approximately 156,000 discussion group posts, created nearly 27,000 threads, and viewed library items more than 437,000 times.

The ACS Communities platform continues to be a valued and popular benefit of membership. In 2020, Bernardi et al. published an analysis\* on the quality and safety of information exchanged in the communities. The top 10 most active communities were

## Considering the pace of computer technology, for a platform like the ACS Communities to remain vibrant and active for more than 10 years is remarkable.

General Surgery, Colon and Rectal Surgery, Breast Surgery, Rural Surgery, Women Surgeons, History of Surgery, Endocrine Surgery, Bariatric Surgery, Practice Issues and Economics, and Trauma Surgery.

Over the years, a number of administrators have served the communities. As examples, Michael R. Starks, MD, FACS, headed the Endocrine Community until this year when Leon Kushnir, MD, FACS, assumed that role. Scott R. Steele, MD, MBA, FACS, was the initial editor for Colon and Rectal Surgery, helping set the tone for that very successful community. Other stalwart administrators of note are Britt H. Tonnessen, MD, FACS (Vascular), Michael D. Sarap, MD, FACS (Ohio Chapter), and Girma Tefera, MD, FACS (Surgical Volunteerism). Community administrators have done an outstanding job working through the vicissitudes of managing mass communications.

A few communities have grown largely as the result of their administrators' engagement. Unlike the initial specialty communities for which members were populated using the College's association management database, communities of special interest require

members to join as they wish.

The History of Surgery community began with several dozen members and has grown to nearly 1,000 members. Don K. Nakayama, MD, MBA, FACS, has led that community for many years, contributing dozens of interesting essays on surgical history. Similarly, Surgeon Writers has grown to approximately 400 surgeons who share writing tips, publication tips, and books or articles they've written. That community is led by Carol E. H. Scott-Conner, MD, PhD, MBA, FACS.

The newest community is Sustainability, formed in response to members' requests for a community of surgeons to discuss environmental impacts of OR practices and equipment. The Sustainability admins are Colleen M. Fitzpatrick, MD, FACS, and Benjamin Miller, MD, FACS.

Considering the pace of computer technology, for a platform like the ACS Communities to remain vibrant and active for more than 10 years is remarkable. The Oxford Dictionary defines community as "a feeling of fellowship with others, as a result of sharing common attitudes, interests, and goals." Indeed, over the course of this past decade, thousands of conversation threads (nearly

27,000) have helped to establish a great sense of fellowship and community—all with the goal to serve all with skill and trust. **B**

### Disclaimer

The thoughts and opinions expressed in this viewpoint article are solely those of the authors and do not necessarily reflect those of the ACS.

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\*Bernardi K, Shah P, Askenasy EP, et al. Is the American College of Surgeons Online Communities a safe and useful venue to ask for surgical advice? *Surg Endosc.* 2020;34(11):5041-5045.



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Dr. Atilla Soran

# $^{18}\text{F}$ -FDG PET/CT in Early Stage Breast Cancer Comes with Financial Burden

Atilla Soran, MD, MPH, FACS

Mehmet Ali Nazli, MD

Osman Toktas, MD

Serdar Ozbas, MD, FEBS

APPROXIMATELY 13% of women have a lifetime risk of developing breast cancer.<sup>1</sup> Early diagnosis is particularly essential as treatment options are improving, and mortality, morbidity, and costs associated with diagnosis and treatment are decreasing in early stage breast cancer. Accurate staging also is critical for making management decisions and predicting outcomes in individuals with newly diagnosed breast cancer. Staging workups are performed on patients who have an increased likelihood of distant metastases.

Although it is not usually recommended for early stage breast cancer, fluorine 18 fluorodeoxyglucose positron emission tomography/computed tomography (<sup>18</sup>F-FDG PET/CT) is used extensively as a metastatic diagnosis for breast cancer.<sup>2</sup> While there are insufficient data for assessing the cost-effectiveness of <sup>18</sup>F-FDG PET/CT in early stage breast cancer, there are abundant data on the efficacy of <sup>18</sup>F-FDG PET/CT in patients with symptoms of metastatic breast cancer. In the era of healthcare cost saving initiatives, the cost of <sup>18</sup>F-FDG PET/CT is an essential consideration, particularly in middle- and low-income countries.

### Let’s Look at the Data

Data on 970 early stage breast cancer patients (stage I and II) diagnosed between January 2015 and December 2020 at 16 different centers in Türkiye were collected retrospectively. In this cohort, no patients received neoadjuvant systemic therapy. Following the diagnosis of breast cancer, all patients with no symptoms for metastases underwent an <sup>18</sup>F-FDG PET/CT scan. The scan results of the patients and the site of distant metastases were recorded.

In this study, we used the cost of <sup>18</sup>F-FDG PET/CT reimbursement in Türkiye, an upper middle-income country, to evaluate the financial impact on the health system.

Approval of the study was obtained from the Van Yüzüncü Yıl University Ethics Committee. The mean

age of patients was 51.6 (SD ± 12.4) years. According to the TNM (tumour, node, metastasis) classification, clinical stages of patients in this cohort were 28.5%, 39.7%, and 31.8% for stage I, stage IIA, and stage IIB, respectively.

<sup>18</sup>F-FDG PET/CT scans detected distant metastasis in 22 patients (2.3%). Of these 22 patients, four patients (0.4%) had mediastinal lymph node positivity, one patient (0.1%) had adrenal metastasis, and 17 patients (1.8%) had lung or bone or lung and bone metastases (see Table, this page).

In 22 patients whose <sup>18</sup>F-FDG PET/CT scans showed distant metastasis, 45.5% were luminal type, 50% were HER2-positive, and only one patient was triple negative. Eleven (50%) patients had more advanced disease and 10 out of these 11 patients upstaged to stage IIIA. Four patients had the same stage comparing preoperative clinical/image evaluation and final pathology report,

**Table.**  
**Distribution of Patients According to Clinical Stage in <sup>18</sup>F-FDG PET/CT Positive**

|                                   | Clinical Stage |      |      |      |      |
|-----------------------------------|----------------|------|------|------|------|
|                                   | I              | IIA  |      | IIB  |      |
|                                   |                | T1N1 | T2N0 | T2N1 | T3N0 |
| <b>Lung (n)</b>                   | 1              | -    | -    | 1    | -    |
| <b>Bone (n)</b>                   | -              | -    | 3    | 9    | 1    |
| <b>Lung+ Bone (n)</b>             | -              | -    | -    | 1    | 1    |
| <b>Mediastinal Lymph Node (n)</b> | -              | -    | 2    | 2    | -    |
| <b>Adrenal (n)</b>                | -              | -    | 1    | -    | -    |

and seven patients were downstaged after the final pathology report.

Internal mammary lymph node positivity was detected in eight patients (0.8%) by <sup>18</sup>F-FDG PET/CT scan. Six patients were in stage IIB, and the rest had stage I and IIA.

### **Physicians Can Do Better: Time to Think about Costs**

In 2024, the estimated number of invasive breast cancer cases in the US is 310,370.<sup>1</sup> The overall 5- and 10-year relative survival rates for invasive breast cancer are 91% and 85%, respectively, mostly because two-thirds of these women are diagnosed with localized-stage disease. Despite these facts and National Comprehensive Cancer Network guidelines stating that routine systemic staging is not indicated for nonmetastatic (M0) cancer in the absence of systemic symptoms,<sup>2</sup> breast care specialists—especially in developing countries—prefer to order <sup>18</sup>F-FDG PET/CT scans during the diagnostic procedures in early stage breast cancer.

Türkiye is a developing country and, based on World Bank data, gross domestic product per capita in 2023 was \$11,938.80.<sup>3</sup> The National Social Insurance Service was established in Türkiye to

cover the majority of the population, including white- and blue-collar workers in the commercial and public sectors. These individuals were financed by payroll earnings, but there has been a surge in insurance companies for healthcare over the previous 2 decades. From 2000 to 2022, healthcare spending rose exponentially, especially in the past 4 years, where healthcare expenditures more than tripled since 2019.<sup>4</sup>

One out of every four women diagnosed with cancer in Türkiye has breast cancer, and according to the Turkish Cancer Statistics report, 19,211 women were diagnosed with breast cancer in a year. Similar to other countries, breast cancer is the most diagnosed cancer among women.<sup>5</sup> Although guidelines are well known among breast care specialists, it is important to focus on increased testing for breast cancer such as ordering <sup>18</sup>F-FDG PET/CT scans in a developing country where healthcare spending is limited.

<sup>18</sup>F-FDG PET/CT is widely used for staging of breast cancer. It is mainly performed to investigate the distant spread of the disease. The cost of these scans in developing, middle-, and low-income countries should be considered, but the fact that the patient is exposed to around 25 mSv of radiation

**Physicians, as well as the government and private insurance sectors in countries coping with exorbitant healthcare costs, should focus on reducing unjustified breast cancer diagnosis and treatment.**



should not be ignored. Furthermore, patients' fear due to false-positive results (which may necessitate additional tests such as biopsies), as well as patients' anxiety while waiting for additional tests to confirm the absence of metastasis, should be recognized and managed appropriately.

The cost of the <sup>18</sup>F-FDG PET/CT scan may pose an additional challenge for middle- and low-income countries. For example, in Türkiye, the National Social Insurance Service pays about \$145 for each PET/CT scan, whereas private insurance companies pay more (\$1,500). Private hospitals or radiology clinics may have considerably greater costs. Because the National Social Insurance Service covers the majority of the costs of breast cancer-related diagnoses and reimburses the cost of every scan, regardless of disease stage, breast care physicians can readily order such a test.

<sup>18</sup>F-FDG PET/CT coverage is similar for private insurance companies. Our study demonstrated that, as stated in the guidelines, the effect of the scans is very low in guiding the clinician to decide the stage and treatment plan of early stage breast cancer. In our study, 97% of patients without symptoms showed no evidence of distant metastases. One can estimate that the total cost of <sup>18</sup>F-FDG PET/CT scans for this cohort of patients was up to \$1,455,000, depending on the insurance coverage.

Another improper use of the <sup>18</sup>F-FDG PET/CT scan in an upper middle-income country is to conduct the scan after neoadjuvant systemic therapy and before surgery, even if the preoperative neoadjuvant systemic therapy scan is negative for distant metastases (e.g., in stage IIB patients), which doubles the expense.

The use of <sup>18</sup>F-FDG PET/CT in asymptomatic patients should be limited not only because of the radiation dose received by the patient, the patient's fear of being diagnosed with metastatic breast cancer, and the impact of false positivity on treatment, but also because it adds unnecessary costs to the

healthcare system and the patient's wallet.

Physicians, as well as the government and private insurance sectors in countries coping with exorbitant healthcare costs, should focus on reducing unjustified breast cancer diagnosis and treatment. While these days we're discussing the financial toxicity of cancer care, we might consider de-escalating unneeded and ineffective diagnostic tools such as <sup>18</sup>F-FDG PET/CT in early stage breast cancer. **B**

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#### References

1. American Cancer Society. Cancer Facts & Figures 2024. Available at: <https://www.cancer.org/content/dam/cancer-org/research/cancer-facts-and-statistics/annual-cancer-facts-and-figures/2024/2024-cancer-facts-and-figures-acf.pdf>. Accessed May 2, 2024.
2. National Comprehensive Cancer Network. Breast guidelines. Available at: [https://www.nccn.org/professionals/physician\\_gls/pdf/breast.pdf](https://www.nccn.org/professionals/physician_gls/pdf/breast.pdf). Accessed May 2, 2024.
3. The World Bank in Turkey. Overview. Available at: <https://www.worldbank.org/en/country/turkey/overview>. Accessed May 2, 2024.
4. Statista. Total health expenditure in Turkey from 2000 to 2022. Available at: <https://www.statista.com/statistics/1272834/health-expenditure-in-turkey/>. Accessed May 2, 2024.
5. Koçak AT, Arslan S, İlik Y. Posttreatment experiences of breast cancer survivors in Turkey: A qualitative study. *Semin Oncol Nurs*. 2022; 38(6):151351.



Dr. Preston Miller

# ACS Mastery in General Surgery Program Continues to Support Graduating Residents

Preston R. Miller III, MD, FACS

A GROUP OF ACS LEADERS convened a decade ago to discuss the training of general surgeons in the US. Two issues were front and center at that meeting: The large majority of those finishing general surgery residencies chose to pursue specialty fellowships rather than enter general surgery practice. There was no postgraduate program in general surgery available that provided advanced clinical experience to those who desired further clinical training as well as mentorship in nonclinical aspects of practice such as leadership, practice management, billing, and medicolegal matters.

To begin addressing these issues, a steering committee developed the ACS Transition to Practice Program. In 2018, this program was expanded and rebranded as the Mastery in General Surgery Program, underscoring its aim to provide a mastery of the elements of general surgery practice. Since its inception, 46 sites have participated nationwide, and more than 110 surgeons have completed the program. The 10-year anniversary of the program offers an opportunity to reflect upon and evaluate the current and future states of the program.

Unfortunately, the supply of general surgeons within the US continues to be a problem. While there is debate as to whether this is an overall workforce shortage or a maldistribution, the outcome is the same. For many Americans, access to general surgery care is not available in or near their communities.

Published statistics vary, but this trend is expected to worsen over the next couple of decades, and conservative estimates put the deficit of general surgeons at more than 19,000 by the year 2030.<sup>1</sup> This shortage disproportionately affects rural and other underserved areas where general surgeons are vital to the survival of smaller hospitals. For more information on the supply of surgeons, read the *Bulletin* article, “Physician Workforce Data Suggest Epochal Change,” in the April 2024 issue.

At the same time, more than 80% of graduating general surgery residents continue to seek specialty

fellowship training just as they did at the inception of the program in 2014. Some of these trainees may go on to practice general surgery but most will seek practice largely confined to the specialty in which they completed their fellowship.

Interest in the specialty remains the most common driver in seeking fellowships but 55% note lack of confidence in performing cases independently as playing a role in choosing fellowship training.<sup>2</sup> Based on available data, we are training specialists, but failing to train general surgeons who are desperately needed.

Addressing the shortage of general surgeons is a complex task that requires a multipronged approach, including advocacy and legislative solutions, in which the College is actively engaged and supports. Additional efforts are aimed at mitigating graduate medical education issues, addressing problems related to student loans, and highlighting the surgical needs of underserved populations and areas.

## **Future Enhancements to the Program**

The Mastery in General Surgery Program is positioned to play a vital role in building a solution to this shortage. The issues that existed during the creation of the program, such as graduates seeking specialty training rather than entering general surgical practice, still exist, and, in some cases, have worsened over the intervening decade. Reflecting on these ongoing trends and evaluating achievements over the past 10 years, the program steering committee has developed new initiatives.

Upcoming improvements intended to enhance the program include developing a repository of resources, implementing a more structured accreditation program, and increasing the number of accredited programs in the US.

There is a wealth of educational resources available for those entering the practice of general surgery. Some are easy to find, and some are more difficult. Moving forward, one of the important additions to

# Ongoing mentorship after surgical residency is vital in helping new graduates successfully navigate the steep learning curve of clinical and professional development.

the program will be a centralized, curated archive of resources for education on clinical topics as well as nonclinical areas such as management/leadership skills, billing practices, contract negotiations, and other relevant areas.

Program administrators have developed a more structured accreditation program for sites to ensure the availability of a standard set of resources and experiences. While there will not be a prescriptive curriculum, the accreditation standards will provide a solid, dynamic framework of concepts within which associates will learn. Central components of this framework will be autonomy of practice with mentorship and flexibility of training plans to allow for specific associate goals. For example, associates may choose to emphasize advanced endoscopy, robotics, critical care, or rural practice contingent upon the resources of the program site.

## The Value of Mentorship


Ongoing mentorship after surgical residency is vital in helping new graduates successfully navigate the steep learning curve of clinical and professional development. Traditionally, this important role has been assumed by senior surgeons. The pressures of current surgical practice, though, have diminished the ability of established practices to fulfill this role.

A few years ago, the program was contacted by a graduate from a general surgery residency who had done quite well and had entered the practice of general surgery after finishing residency. She entered a practice that had agreed to provide her with ongoing guidance as she began to build her practice. Unfortunately, she was unable to find partners willing to discuss clinical ideas or help with challenging cases as everyone was exceptionally busy at several hospitals managing their own practices.

The Mastery in General Surgery Program was a way for her to gain exposure to mentorship and advanced training in the field. After spending a year in the program, she is now working with a group of

surgeons and building a thriving practice of her own. Mentorship for those seeking to enter general surgery practice is a central pillar of the program.

With these new cornerstones in place, the Mastery in General Surgery Program is positioned to serve as an important part of the solution to the surgeon workforce shortage and maldistribution of general surgeons throughout the US. The goal is to double the number of sites in the next 5 years. Academic medical centers will play a vital role in this expansion, but key to the growth will be new sites, including community training programs, especially in rural areas, hospital systems, and large private practices.

For information on starting a new site or other questions about the program, email [MasteryGS@facs.org](mailto:MasteryGS@facs.org) or visit [facs.org/MasteryGS](https://facs.org/MasteryGS). 

## Disclaimer

The thoughts and opinions expressed in this viewpoint article are solely those of the author and do not necessarily reflect those of the ACS.

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## References

1. Oslock WM, Satiani B, Way DP, Tamer RM, et al. A contemporary reassessment of the US surgical workforce through 2050 predicts continued shortages and increased productivity demands. *Am J Surg*. 2022;223(1):28-35.
2. Quinn M, Burns B, Taylor M. Early autonomy may contribute to an increase in the general surgical workforce. *Cureus*. 2020;12(2):e7108.

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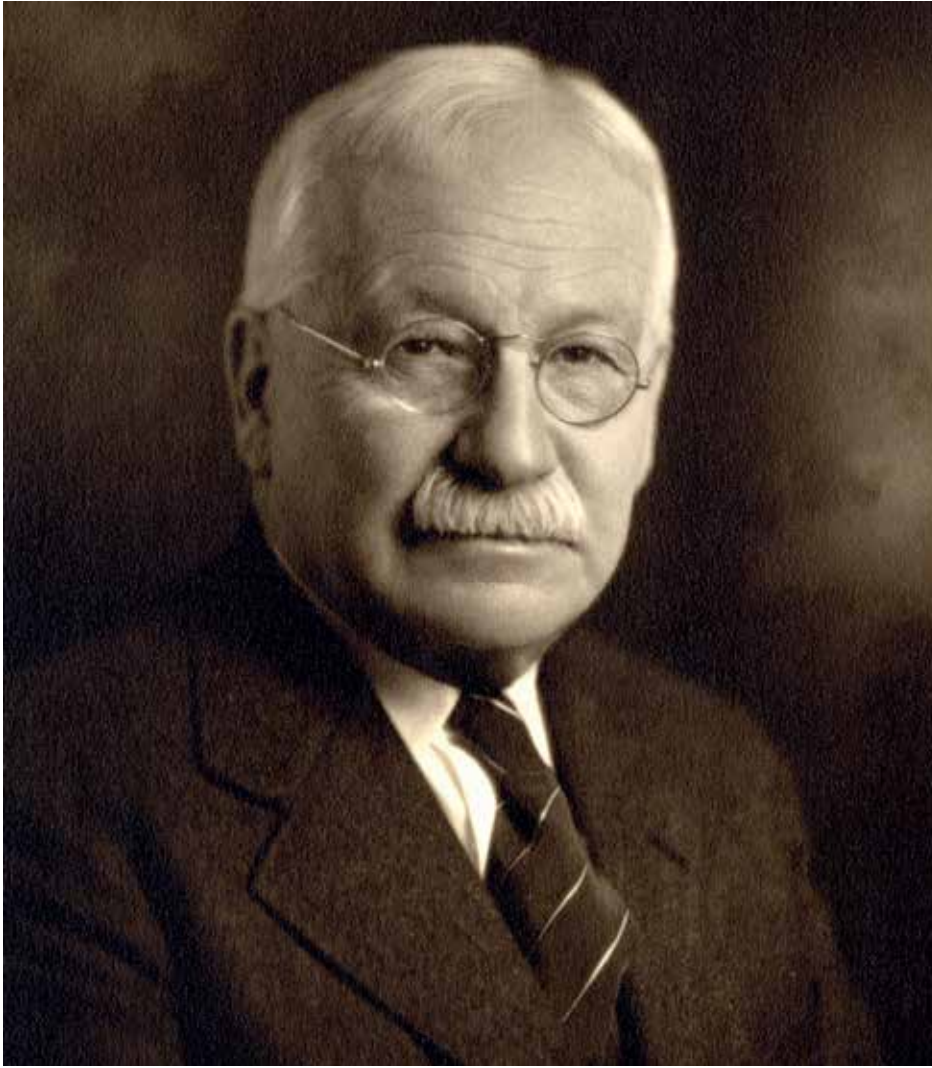
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Dr. John M. T. Finney

# First ACS President Lives Life as “Surgeon’s Surgeon”

Thomas F. Dodson, MD, FACS

MY GREAT grandfather, J. S. Houston of Alabama, was a physician in the late 19th century. Understandably, the rigor and excellence of today's training and practice are very different from what my grandfather experienced 150 years ago. One of the catalysts for the evolution of medical education was John M. T. Finney, MD, FACS, who later became the first ACS President and was known as the "Surgeon's Surgeon," often consulting with many of his colleagues about their surgical issues.

Dated July 18, 1876, the first letter my great grandfather received from the Medical Department of the University of Louisville was written by Dr. J. W. Bodine, dean of the faculty. It informed my great grandfather that his examination at the completion of his studies was "satisfactory."

The school was, of course, proprietary, and the nine members of the faculty depended on the fees for their livelihood.

Most medical schools of that time only required the ability to read and write, and although the letter went on to say that my great grandfather would be "recommended as worthy" to receive an MD degree, it was likely that he had not seen any patients during the two 4-month series of lectures nor had he participated in any courses with the exception of anatomy.<sup>1</sup>

My great grandfather received his second letter from Dr. Bodine on March 22, 1877, and it confirmed that his diploma was being sent in a "tin case" to avoid damage. Once his diploma was in hand, Dr. Houston was free to travel, largely on horseback, to see patients with a variety of ills and supported only by the few medicines in his bag and his own common sense. He didn't know, of course, that just a few decades later, two individuals, Dr. Finney and Abraham Flexner, MD, and one institution, Johns Hopkins University, were about to come on the scene and completely

change the standards for both medical education and surgery.

In 1876, Johns Hopkins University opened its doors, thanks to the beneficent gift of \$7 million from its namesake. Johns Hopkins Hospital was founded just 13 years later in 1889, and the medical school followed in 1893. Dr. Flexner was born in 1866, the sixth of nine children. He was unable, on his own, to afford college, but he was fortunate that his brother, Jacob, a pharmacist, gave him \$1,000, which allowed him to enter Johns Hopkins University at the age of 17.<sup>2</sup> Realizing that his limited funds made a lengthy college education impossible, he vowed to finish the college requirements in 2 years. In his autobiography, Dr. Flexner wrote, "I did nothing in these 2 years in Baltimore but work, for the time was short."

After graduation from Hopkins, Dr. Flexner started a college preparatory school in Louisville, Kentucky,

in 1890, married a well-to-do actress, and wrote a scathing book about the inadequacies of American colleges.

This book came to the attention of Henry Pritchett of the Carnegie Foundation,

Dr. Abraham Flexner

and Pritchett asked Dr. Flexner “if he would like to make a study of medical schools.”

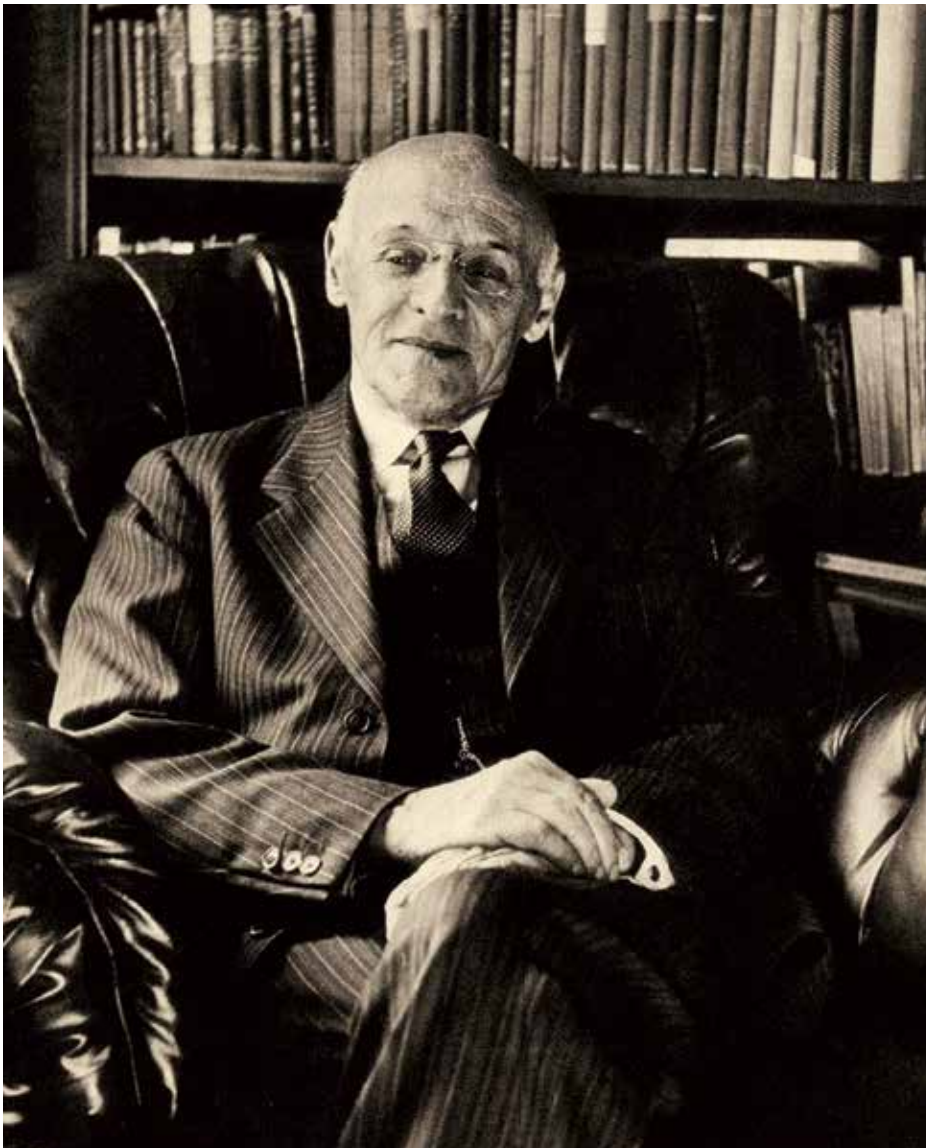
Shortly thereafter, in 1908, with an answer in the affirmative, Dr. Flexner began a tedious, and at times, exhausting

survey of the medical schools in Canada and the US.

Prior to starting this monumental task, he went to Baltimore and interviewed multiple members of the Hopkins faculty. The standards they espoused became the template for all of the medical schools that he visited.<sup>3</sup> In his autobiography, Dr. Flexner stated, “In the course of a few hours, a reliable estimate could be made respecting the possibilities of teaching modern medicine in almost any one of the 155 schools that I visited in the United States and Canada.”

The culmination of his work, *Medical Education in the United States and Canada Bulletin Number Four*, became the intellectual scythe of medical education, and as Dr. Flexner wrote, “Schools collapsed to the right and left, usually without a murmur.” By 1930, only 66 medical schools in the US remained open.

Only 3 years before Dr. Flexner’s birth, in 1863, with the American Civil War raging a short distance from the Finney plantation, Dr. Finney was born near Natchez, Mississippi. The war was at its midpoint and gunfire could be heard just a short distance away. His mother died that same year, and thanks to the care of “four foster mothers,” he received the love and attention that he needed.<sup>4</sup> One of his four foster mothers, Mrs. Turpin, insisted on taking baby Finney (5 months old) into her own home, and her care was so profound that Finney’s father





## In 1913, when the ACS was working to select its first president, the organization passed over more well-known names and chose Dr. Finney as its first president.

added the “T” to his son’s name.

After the Civil War ended, young Finney had had a variety of homes due to the peripatetic nature of his clergyman father’s “calling.” With his grandfather and father having attended Princeton University (and his brother enrolled at the institution at that time), and thanks to the generosity of his fourth foster mother, he, too, attended Princeton.

Graduating in the class of 1884, he went on to Harvard Medical School, noting that his 3 years there were “among the most fruitful years of [his] life.” After his time at Harvard, Dr. Finney was selected as a Resident Surgical Staff member at Massachusetts General Hospital, and he completed 18 months in that institution. In 1889, he left Boston and went to Baltimore to work under William S. Halsted, MD, FACS(Hon), of Johns Hopkins.

About a year later, still not having operating privileges at Johns Hopkins, he opened a private practice at Union Protestant Hospital (now Union Memorial Hospital).<sup>5</sup> However, when Dr. Halsted was away from Baltimore, Dr. Finney was often left in charge of the service. Gradually, Dr. Finney’s reputation grew.

In 1913, when the ACS was working to select its first president, the organization passed over more well-known names and chose Dr. Finney as its first president. As noted by John L. Cameron, MD, FACS, in his 2008 Presidential Address to the ACS, “Finney was chosen . . . because he was a sound surgeon with strong moral and ethical values, and an outstanding human being.”<sup>5</sup>

Dr. Finney went on to serve with the American Expeditionary Force in Europe for 2 years, and he served for 3 years as interim chair at Johns Hopkins

after Dr. Halsted’s demise.

He later served as president of the American Surgical Association and Southern Surgical Association before he died in 1942. **B**

**Dr. Thomas Dodson** is a Professor Emeritus in the Department of Surgery at the Emory University School of Medicine in Atlanta, GA.

### References

1. Ludmerer KM. *Learning to Heal: The Development of American Medical Education*. New York: Basic Books, Inc., 1985.
2. Flexner A. *I Remember; The Autobiography of Abraham Flexner*. New York: Simon and Schuster, 1940.
3. Duffy TP. The Flexner Report—100 years later. *Yale J Biol Med*. 2011;84(3):269-276.
4. Finney JMT. *A Surgeon’s Life*. New York: J. P. Putnam’s Sons, 1940.
5. Cameron J L. John Miller Turpin Finney: The First President of the American College of Surgeons. *J Am Coll Surg*. 2009;208(3):327-332.

# Wrong Surgery, Retention of Foreign Object Top 2023 Sentinel Event List

Lenworth M. Jacobs Jr., MD, MPH, FACS

**The Joint Commission's Sentinel Event Data 2023 Annual Review shows the persistence of two significant types of surgical errors: wrong surgery and unintended retention of a foreign object.**

EACH ACTIVITY represents 8% of the total events reported, and they rank second and third respectively among the leading types of 1,411 sentinel events reported during 2023.

The majority of the events (96%) were self-reported. Falls were the most frequently reported sentinel event, comprising 48% of all event types.

Both wrong surgery and unintended retention increased from 2022 to 2023—wrong surgery by 26% and unintended retention of a foreign object by 11%—demonstrating the need for surgical teams to consider procedural and organizational modifications, as well as technological systems that could reduce the frequency of these “never events.”

## Wrong Surgeries

The 112 wrong surgeries reported to The Joint Commission during 2023 included invasive procedures performed at the wrong site or on the wrong patient, or an unintended procedure.

The leading outcomes of these errors were severe temporary harm (39%), unexpected additional care or extended stay (39%), and permanent harm to the patient (14%). Most wrong surgery sentinel events (62%) were wrong-site procedures.

Leading contributors to wrong surgeries, according to those who reported them, included no or insufficient timeout procedures, preoccupation or task fixation limiting situational awareness, and no or inadequate shared understanding among team members.

## Unintended Retention of a Foreign Object

The 110 sentinel event reports of unintended objects left behind during 2023 included sponges (35%), guide wires (10%), and fragments of instruments or devices such as catheter or Foley balloon fragments (8%). Other retained items were dental retractor cords, cottonoids, surgical specimens and, though infrequently reported, surgical scissors.

Leading outcomes associated with these errors included severe harm to the patient (50%),

unexpected additional care or extended stay (41%), or other or no harm (9%).

Consistent with previous years' sentinel event reports, contributors to unintended retentions included count or other policies not being followed; a lack of shared understanding; no or inadequate team communication before, during, or after a shared team task; and preoccupation or task fixation limiting situational awareness.

## Additional Findings from Another Recent Study

The top contributors to wrong-site surgery were failure to follow policy/protocol (83.8%) and failure to review medical records (41.2%), according to a study published by *The Joint Commission Journal on Quality and Patient Safety*.<sup>1</sup> This study's authors reviewed 68 wrong-site surgery closed claims from a medical malpractice company.

Surgical services most frequently responsible for the claims were orthopaedics (35.3%), neurosurgery (22.1%), and urology (8.8%). The most common types of procedures resulting in claims were spine and intervertebral disc surgery (22.1%), arthroscopy (14.7%), and surgery on muscles/tendons (11.8%). Death resulted from 7.4% of the cases.

## Universal Protocol Part of the Solution

The Joint Commission's Universal Protocol is designed to help reduce the incidence of wrong surgery. The protocol follows a three-step process:

- Verification
- Marking of the operative site
- Final timeout to reconfirm the right patient, procedure, and site

The Wrong-Site Surgery chapter in the recently published *Patient Safety*<sup>2</sup> recommends prevention strategies, including strict adherence to the protocol, good teamwork, and aggressive education of all

# Surgeons need to pay vigilant attention to this problem and take steps to make these sentinel events “never events.”

employees in the risk factors and root causes for these events.

## Other Prevention Strategies

A *World Journal of Surgery* article<sup>3</sup> outlines four kinds of interventions shown to be effective in preventing unintended retention of foreign objects:


- Technology
- Communication
- Practice or guideline changes
- Multiple interventions

Using radiofrequency (RF) technology to prevent retained sponges<sup>4</sup> and improving communication at handover of one team to another in the OR to reduce retained swabs<sup>5</sup> resulted in the best outcomes. RF technology was associated with a reduction in both near misses and unresolved miscounts, as well as cost savings.<sup>4</sup>

Researchers using a computer-aided diagnosis (CAP) system to capture 1,053 post-operated images found possible retained surgical items in 150 images, with specificity of 85.8%, according to a study published in the *Journal of the American College of Surgeons*.<sup>6</sup> These results suggest that a CAP system can help to establish a more effective protocol than the current standard practice for preventing the retention of surgical items.

A self-administered checklist for safe surgery can encourage the patient and family members to ask questions and be part of the surgery process, helping to mitigate errors, according to a paper published in the *Journal of PeriAnesthesia Nursing*.<sup>7</sup>

Wrong surgeries and the unintended retention of foreign objects continue to be significant challenges. To minimize these sentinel events, surgical teams must adhere to the universal protocol and create safe surgical environments marked by situational awareness, teamwork, a shared understanding, and good communication.

Technology also can be used to enhance current best practices, communication, and procedures. Surgeons need to pay vigilant attention to this problem and take steps to make these sentinel events “never events.” 

## Disclaimer

The thoughts and opinions expressed in this column are solely those of Dr. Jacobs and do not necessarily reflect those of The Joint Commission or the American College of Surgeons.

**Dr. Lenworth Jacobs** is a professor of surgery at the University of Connecticut in Farmington and director of the Trauma Institute at Hartford Hospital, CT.

## References

1. Tan J, Ross JM, Wright D, Pimentel MPT, et al. A contemporary analysis of closed claims related to wrong-site surgery. *Jt Comm J Qual Patient Saf*. 2023;49(5):265-273.
2. O'Neill P, La Punzina CS. Wrong-Site Surgery. In: Agrawal A, Bhatt J (eds) *Patient Safety*. Springer, Cham.
3. Sirihorachai R, Saylor KM, Manojlovich M. Interventions for the prevention of retained surgical items: A systematic review. *World J Surg*. 2022;46(2):370-381.
4. Primiano M, Sparks D, Murphy J, Glaser K, et al. Using radiofrequency technology to prevent retained sponges and improve patient outcomes. *AORN Journal*. 2020;112(4):345-352.
5. Lean K, Page BF, Vincent C. Improving communication at handover and transfer reduces retained swabs in maternity services. *Eur J Obstet, Gynecol Reprod Biol*. 2018;220:50-56.
6. Kurisaki K, Soyama A, Hamauzu S, Yamada M, et al. Clinical validation of computer-aided diagnosis software for preventing retained surgical sponges. *J Am Coll. Surg*. May 2024;238(5):856-860.
7. Krenzischek D, Card E, Mamaril M, Rossol N, et al. Patients' perceptions of importance for self-administered correct site surgery checklist: A multisite study. *Journal of Perinesth Nurs*. 2023;38(4):e27.



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# Social Determinants of Health Screening Influence Cancer Outcomes

Kelley Chan, MD

Amanda B. Francescatti, MS

Rebecca A. Snyder, MD, MPH

## Despite major advances in cancer prevention and treatment, significant disparities in cancer care and outcomes persist.

THE INFLUENCE OF social determinants of health (SDOH) on the continuum of cancer care has been recently recognized. SDOH are defined by the World Health Organization as the “conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life.”<sup>1</sup>

Drivers of SDOH encompass conditions that exist upstream, such as socioeconomic conditions, environmental conditions, institutional power, and social networks, which interrelate to ultimately influence downstream factors, including health behaviors, health conditions, and outcomes.<sup>2</sup>

Patients with socioeconomic disparity experience a 22% higher cancer mortality rate compared to those without socioeconomic disparity.<sup>3</sup> Disparities exist not only in cancer mortality but also have been reported in incidence, stage at diagnosis, treatment, and survival.<sup>3</sup> Mitigating social risks for patients with cancer may improve equity among underserved populations. While there is a growing body of knowledge about the influence of SDOH on cancer outcomes, less is known about how to successfully screen and address these determinants.

Healthcare systems are now being tasked with the responsibility to understand and address SDOH among their patients to improve quality of healthcare delivery and outcomes. Providers and systems are encouraged to integrate social care

into the delivery of healthcare by screening for social risk factors and addressing identified needs by connecting patients with internal resources or external community-based services. In fact, recent policy by the Centers for Medicare & Medicaid Services has mandated the collection and reporting of SDOH screening measures from hospitals reporting to the Hospital Inpatient Quality Reporting Program.<sup>4</sup>

To date, single institution and healthcare system studies have demonstrated the feasibility of routine SDOH collection in the outpatient oncology and ambulatory care settings.<sup>5,6</sup> However, challenges faced by healthcare systems seeking to understand and address SDOH include the lack of a standardized screening process and limited data on the efficacy of contemporary SDOH screening tools.

Implementation of SDOH screening tools that are integrated into healthcare delivery systems will support the collection of patient-centered data elements that can inform policy, payment redesign, and delivery of guideline-concordant care. Still, further work is necessary to evaluate workflow integration, standardize SDOH screening tools, and identify best practices to document and provide resources for identified needs and risk factors.

In a key step toward understanding how cancer programs can better address the unique needs of their patient populations to ensure high-quality, multidisciplinary, and comprehensive cancer care

## The CoC is dedicated to improving survival and quality of life for all patients with cancer through accreditation standards and promotion of quality assessment and improvement.

delivery, the ACS Commission on Cancer (CoC) will launch an SDOH Screening Survey among its CoC-accredited cancer programs in the coming months.


The study aims to:

- Determine current SDOH screening practices within the outpatient oncology setting
- Describe facilitators and barriers to SDOH screening
- Understand availability of resources to address identified needs
- Examine patient characteristics, institutional characteristics, and treatment and outcomes associated with SDOH screening

Community engagement has been increasingly recognized as an important step in translating innovative approaches to patients from diverse settings. Results of this study are critically important to increasing our understanding of how the needs of diverse populations can be identified and addressed throughout the continuum of cancer care.

The CoC is dedicated to improving survival and quality of life for all patients with cancer through accreditation standards and promotion of quality assessment and improvement. The study of SDOH screening and resources represents a unique opportunity to improve equity in cancer care delivery and to benefit the diverse population

served by the ACS CoC cancer programs.

Details about the survey will be released in an upcoming issue of the Cancer Programs News. Email questions to [cancerresearchprogram@facs.org](mailto:cancerresearchprogram@facs.org). 

**Dr. Kelley Chan** is an ACS Clinical Scholar with the CoC Cancer Programs in Chicago, IL.

### References

1. World Health Organization. Social determinants of health. Available at: [https://www.who.int/health-topics/social-determinants-of-health#tab=tab\\_1](https://www.who.int/health-topics/social-determinants-of-health#tab=tab_1). Accessed March, 28, 2024.
2. Alcaraz KI, Wiedt TL, Daniels EC, Yabroff KR, et al. Understanding and addressing social determinants to advance cancer health equity in the United States: A blueprint for practice, research, and policy. *CA Cancer J Clin*. Jan 2020;70(1):31-46.
3. Singh GK, Jemal A. Socioeconomic and racial/ethnic disparities in cancer mortality, incidence, and survival in the United States, 1950-2014: Over six decades of changing patterns and widening inequalities. *J Environ Public Health*. 2017;2017:2819372.
4. Centers for Medicare and Medicaid Services. CMS framework for health equity. Available at: <https://www.cms.gov/priorities/health-equity/minority-health/equity-programs/framework>. Accessed March 28, 2024
5. Hao SB, Jilcott Pitts SB, Iasiello J, et al. A mixed-methods study to evaluate the feasibility and acceptability of implementing an electronic health record social determinants of health screening instrument into routine clinical oncology practice. *Ann Surg Oncol*. Nov 2023;30(12):7299-7308.
6. LaForge K, Gold R, Cottrell E, et al. How 6 organizations developed tools and processes for social determinants of health screening in primary care: An overview. *J Ambul Care Manage*. Jan/Mar 2018;41(1):2-14.





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# Dr. Robert Montgomery Receives 2024 Jacobson Innovation Award

ROBERT A. MONTGOMERY, MD, DPhil, FACS, a pioneer in transplant surgery, is the recipient of the 2024 ACS Jacobson Innovation Award.

Dr. Montgomery, chair of the Department of Surgery at NYU Langone Health, H. Leon Pachter, MD, Professor of Surgery in the Department of Surgery at NYU Grossman School of Medicine, and director of the NYU Langone Transplant Institute, all in New York, New York, was presented with the honor last month in Chicago, Illinois.

Through this international surgical award, the ACS recognizes living surgeons who have initiated a new development or technique in any surgical discipline. It was established with a gift from Julius H. Jacobson II, MD, FACS, a vascular surgeon known for his innovations in microsurgery, and his wife, Joan.

Dr. Montgomery received the award in its 30th year, joining a cohort that includes

Francis DeBois, MD, who revolutionized the treatment of gallbladder disease with a mini-laparotomy for cholecystectomy; transplantation pioneer Thomas Starzl, MD, FACS; and M. Judah Folkman, MD, FACS, who founded the field of angiogenesis and developed angiogenesis inhibitors.

“The College is the thing that connects all of us together,” Dr. Montgomery said. “So, to be recognized by this gigantic community—which includes so many luminaries—is a really big deal.”

## Career Highlights

For more than 20 years at Johns Hopkins University in Baltimore, Maryland, Dr. Montgomery helped develop numerous improvements to transplantation, including laparoscopic live-donor nephrectomy, long-distance live-donor shipping of kidneys, and desensitization and paired-donation modalities, which his

team then used to transplant more than 700 patients.

Dr. Montgomery led teams that completed the first 3-way paired donation and the first 2-way, 3-way, 4-way, 5-way, 6-way, and 8-way domino paired donations. He also co-led the first 10-way open-chain kidney donations and performed the first chain of transplants started by an altruistic donor.

In 2016, he moved to NYU Langone Health, taking the helm of a surgical department of 175 faculty and 300 staff members across Manhattan, Brooklyn, and Long Island. He has vastly expanded transplant services at the medical center and led the creation of new lung and heart transplant programs and pediatric kidney, heart, lung, and liver programs, as well as an expansion of the allogeneic bone marrow transplant program.

Dr. Montgomery and his team also completed the first and second successful pig-to-human kidney xenotransplants in



Dr. Robert Montgomery (left) and ACS President Henri R. Ford, MD, MHA, FACS.

**“The College is the thing that connects all of us together. So, to be recognized by this gigantic community—which includes so many luminaries—is a really big deal.”**

Dr. Robert Montgomery

September and November 2021; two gene-edited, pig-to-human heart transplants in decedents in 2022; and the longest functioning pig-to-human kidney xenotransplant to date in 2023.

Throughout his career, his innovations in caring for patients with complications have included the creation of a dedicated incompatible transplant program and some of the first successful transplants in patients with catastrophic antiphospholipid syndrome. He is considered a world expert on kidney transplantation for patients who are highly sensitized or ABO incompatible, and he receives patients with highly

complex cases who are referred to him from around the globe.

Dr. Montgomery completed his medical degree at the University of Rochester School of Medicine in New York, and a doctorate in molecular immunology at the University of Oxford in England. His surgical training (including as an intern, resident, chief resident, and fellow in transplant surgery) was at The Johns Hopkins Hospital. He also was a postdoctoral fellow in human molecular genetics at Johns Hopkins University.

An ACS Fellow since 2003, Dr. Montgomery is a past ACS Scholar and a past recipient of the ACS Faculty Fellowship and the ACS George H. A. Clowes Jr.,

MD, FACS, Memorial Research Career Development Award.

### **Advice for Young Surgeon-Scientists**

Asked how he would advise the next generation of surgeon-scientists, Dr. Montgomery noted that some success comes down to “being at the right place at the right time with the right mentors, the people who inspire you and invest in you.”

However, he noted that success often hinges on persistence: “I think the trick is to just really be prepared. There’s nothing that replaces hard work. There’s nothing that replaces resilience and failing and picking yourself up and never giving in to the





voices inside your head that tell you you're never going to achieve what you want to achieve. You have to put in that time and that effort and do the work."

In addition, he said innovation is often linked to resisting the status quo: "You have to immerse yourself in whatever field you choose so that you really understand what the unmet needs are. What are the things that, if you could come up with a new approach or a new idea, would make a big difference?"

He connected that kind of scientific insight back to clinical care. "I learn from my patients. I think that's another secret," he said. "If you're not doing that, I think you're not going to be that well-informed to be able to translate new ideas into

patient care. A lot of those ideas come from your contact with individual patients."

### Ongoing Breakthroughs

The patient story he may have received his boldest insights from, however, is his own. Affected by genetic cardiomyopathy, Dr. Montgomery received the first implantable cardiac defibrillator given to a practicing surgeon in 1989. In 2018—after receiving a heart transplant at NYU Langone Health and recognizing that his survival depended on a donor's death—he was motivated to make xenotransplantation a clinical reality for others.

While the Jacobson Innovation Award recognizes lifetime achievement, Dr. Montgomery's work in surgical innovation

is not yet complete. This year, he added to his stream of xenotransplantation breakthroughs by providing the sixth xenotransplant at NYU Langone Health to a woman whose severe disease necessitated both a pig kidney and heart pump. She lived with the organ for 47 days, ultimately dying about 3 months after the transplant surgery. Dr. Montgomery anticipates moving xenotransplantation to phase I and phase II clinical trials in 2025. He also predicted that within 10 years, after further clinical trials, xenotransplantation "will be commonplace."

To submit a nomination for the 2025 Jacobson Innovation Award, see the Honors Committee news story on page 71. **B**

 Access related video content online.



Opposite page: Top: Physicians and staff from the NYU Langone Transplant Institute. From left: Erin Fitzgerald, MD, FACS, Brigitte Sullivan, MBA, Cinda Grisbach, Massimo Mangiola, PhD, Elaina Weldon, MSN, ACNP-BC, Dr. Robert Montgomery, Christopher L. Wolfgang, MD, FACS, and Nicole Ali, MD.

This page: Dr. Montgomery gathered with family, friends, coworkers, and ACS leadership.

# Dr. Mark Savarise, ACS Regent

ACS Regent Mark T. Savarise, MD, MBA, FACS,  
passed away July 2 at the age of 58.



DESCRIBED AS A BEACON of dedication and compassion in the medical community, Dr. Savarise was a highly skilled general surgeon who recently retired from clinical service at the University of Utah (U of U) in Salt Lake City.

“Mark was the surgeon we all aspire to be. Integrity, honesty, excellence, professionalism, technical expertise—Mark had it all,” said Thomas K. Varghese, MD, MS, MBA, FACS, who worked with Dr. Savarise at U of U. “His patients adored him. We—his colleagues—cherished our time with him. He performed every activity he was involved with at the highest level. He was one of the kindest souls in the House of Surgery and was tireless in his work for his trainees and patients.”

An ACS Fellow for 25 years and a Regent since 2021, Dr. Savarise generously served in many leadership positions with the College, including as Chair of the Young Fellows Association; as a member of the Health Policy Advisory Council, Advisory Council for General Surgery, Advisory Council for Rural Surgery, and Bylaws Committee; and on the Board of Regents. He also was a member of the ACS Foundation Board of Directors, playing an important role in growing the organization’s philanthropic support.

According to friend and colleague Raminder Nirula, MD, MPH, FACS, Dr. Savarise exemplified the qualities of what it means to be a FACS.



“He did this through fostering not only his own professional growth and development but that of numerous trainees to whom he gave his time so willingly,” said Dr. Nirula. “To the countless surgeons whose practices he affected through his work at the College, we remain indebted. To the lives of patients and families he touched, they remain a testament to his ability to establish and maintain patients’ confidence in his ability and integrity as their surgeon. To me, Mark always unselfishly shared his passion, wisdom, and experience that helped me in so many ways.”

When Dr. Savarise first became a Regent, he shared his surprise: “I’m just an ordinary general surgeon out there in practice who gets up in the morning and goes to the clinic or the operating room. I’ve been engaged with the College since being a young surgeon, and the College means everything to me in organized medicine. I have found my place here. I am very proud of the work the College does. I’ve been involved with member services, advocacy, and research and optimal patient care, so I just want to be here to help push things along, grow the House of Surgery, fight for us in advocacy, and promote our programs.”

In fact, Dr. Varghese said one of their favorite activities each year was attending the ACS Leadership & Advocacy Summit in Washington, DC, and then visiting Capitol Hill to raise awareness on critical legislative issues.

Dr. Savarise earned his medical degree from the University of Colorado in Denver and completed a general surgery residency at U of U. He then served 4 years as a US Airforce Medical Corp staff surgeon. Later, Dr. Savarise thrived as a private practice surgeon in Sandpoint, Idaho, before being recruited back to the U of U as a clinical associate professor, medical director of outreach and network development, and section chief of community general surgery. He also was an attending general surgeon at the George E. Wahlen Department of Veterans Affairs Medical Center in Salt Lake City.

ACS First Vice-President Tyler G. Hughes, MD, FACS, reflected on Dr. Savarise and how being a remarkable surgeon involves much more than knowledge or technical skill.

“Mark was a great surgeon who had the knowledge and skills required, but also could communicate and inspire,” said Dr. Hughes. “To me, he represented the sort of person the American College of Surgeons has at its core. Our organization is less with him gone. I hope you take a moment and consider this man for the fine work he did for patients and surgeons in his all too short life. We could each learn from his example.”

Dr. Savarise is survived by his wife Yvonne. **B**

Dr. Mark Savarise, Dr. Tom Varghese (left), and their U of U colleagues visited the US Capitol while attending the ACS Leadership & Advocacy Summit.

# Dr. Mehreen Kijat Receives Clowes Award



MEHREEN T. KISAT, MBBS, MS, has been selected to receive the 2024 ACS George H. A. Clowes, MD, FACS, Memorial Research Career Development Award for her project, “Molecular and Computational Enrichment of Microbial DNA in Plasma to Improve Diagnosis of Sepsis.” Dr. Kijat is an assistant professor in the Division of Acute Care and Regional General Surgery at the University of Wisconsin School of Medicine and Public Health in Madison.

Dr. Kijat’s research will tackle the complicated issue of recognizing when antibiotics are required to treat sepsis in trauma patients.

“Sepsis is a life-threatening condition caused by

the body’s extreme response to an infection, and it can lead to organ failure, tissue damage, and death,” she said. “The challenge is that it can be hard to recognize sepsis in trauma patients because the natural way in which the body responds to the traumatic injury itself can mimic symptoms of sepsis.”

Dr. Kijat is designing and evaluating ways to more rapidly identify patients with sepsis and quickly pinpoint the type of infection-causing pathogens that are present so clinicians can make more informed decisions about when and which antibiotics to administer. In addition, she will focus on improving molecular and computational approaches to detect the DNA fragments of infection-causing bacteria in a patient’s blood.

The Clowes Award is offered through the generosity of The Clowes Fund, Inc., of Indianapolis, Indiana. Its purpose is to provide support for the research of a promising young surgical investigator. The award consists of a stipend of \$45,000 for each of 5 years and is not renewable thereafter.

More information is available at [facs.org/clowes](https://facs.org/clowes). Applications for the 2025 Clowes Award are due by **August 30, 2024.** **B**



# Nominate Colleagues by September 5 for Prestigious ACS Awards

The ACS Honors Committee is inviting members to submit nominations for various awards.

## Honors Committee

THIS REGENTAL COMMITTEE is responsible for administering and recommending nominees for six College awards and honors to the Board of Regents for their final approval. The committee is particularly interested in nominations of candidates from a wide range of surgical specialties and geographical locations, especially for Honorary Fellowship.

Submissions for all awards are accepted throughout the year and considered for selection annually according to the following schedule:

### January

- Distinguished Lifetime Military Contribution Award

### May

- Distinguished Service Award
- Jacobson Innovation Award
- Lifetime Achievement Award

### September

- Honorary Fellowship
- Sheen Award

Nominations must be received by **September 5** in order to be included on the next Honors Committee meeting agenda. Nominations received after that date will be held for future consideration.

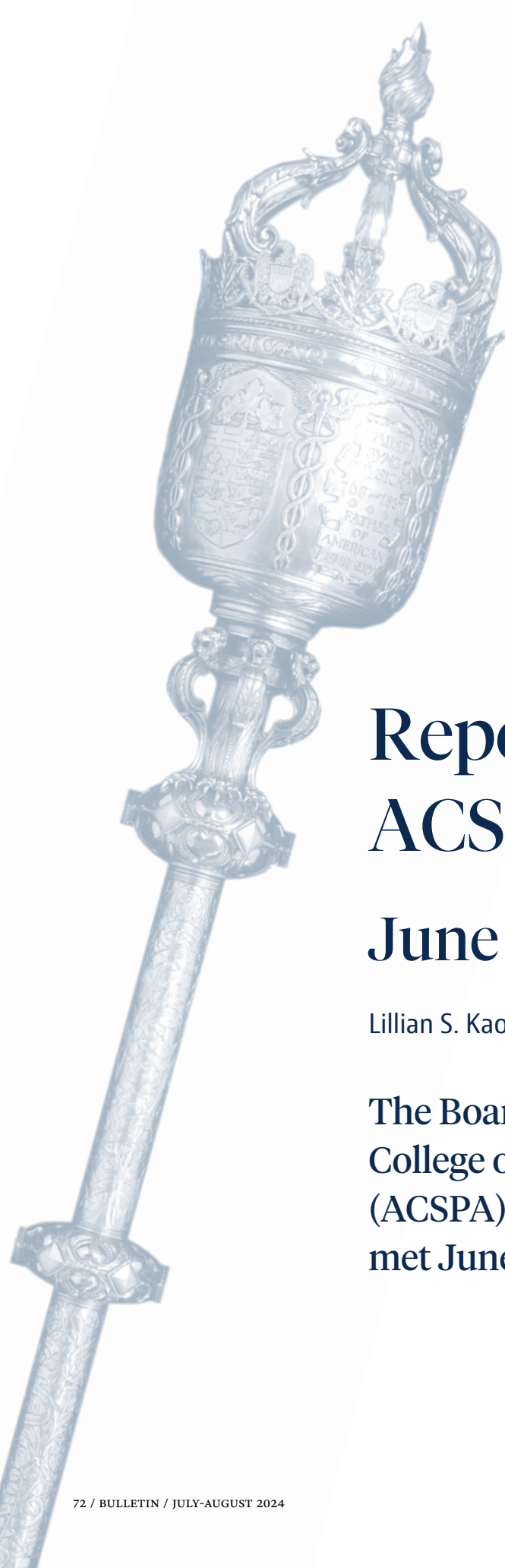
Visit [facs.org/honorscommittee](https://facs.org/honorscommittee) for award criteria and instructions for submitting a nomination. **B**

### Note

Nominations do not automatically lead to selection, and not all awards or honors are presented annually.

### 2023–2024 Honors Committee Members

- Henri R. Ford, MD, MHA, FACS, *Chair*
- Anthony Atala, MD, FACS
- E. Christopher Ellison, MD, FACS
- James W. Fleshman, MD, FACS
- Fabrizio Michelassi, MD, FACS
- Anton Sidawy, MD, FACS
- Beth H. Sutton, MD, FACS
- Douglas E. Wood, MD, FACS



# Report on ACSPA/ ACS Activities

## June 2024

Lillian S. Kao, MD, MS, FACS

The Board of Directors of the American College of Surgeons Professional Association (ACSPA) and the ACS Board of Regents (BoR) met June 14-15 in Chicago, Illinois.

THE FOLLOWING IS A SUMMARY of key activities discussed and was current as of the date of the meeting.

### **ACSPA**

The ACSPA, a 501(c)(6), allows for a broader range of activities and services that benefit surgeons and patients, including expanded legislative advocacy and political programming, such as the ACSPA-Political Action Committee (SurgeonsPAC).

### **ACS**

The BoR accepted resignations from 11 Fellows and changed the status from Active or Senior to Retired for 72 Fellows.

The Regents also approved the Statement on Trauma Activation Fees. This statement will be available later this year; additional details will be shared via the weekly *ACS Brief* email.

### **Education**

A strategic analysis of the Division of Education conducted at the June 2022 BoR meeting reviewed programs and products, identified internal and external challenges, defined future vision, and established priorities for moving forward. A status update of the recommendations presented during the most recent meeting included:

- Impact on volunteer committees
- Ongoing financial assessments
- Program and staff changes
- Regental Education Advisory Committee activities

Additional analyses and discussion concentrated on:

- Adoption of new technologies in surgical education
- Future opportunities in surgical education
- Inclusion of preceptoring, proctoring, mentoring, and coaching in surgical education

The Division of Education also reported on the following key activities.

### **Academy of Master Surgeon Educators®**

The Academy of Master Surgeon Educators was launched in 2017 to recognize and assemble a cadre of renowned master surgeon educators to work closely with the ACS Division of Education and advance the science and practice of avant-garde surgical education and training. The 2024 Symposium will be held September 27 to address “Mentorship and Coaching of Mid-Career Surgeon Educators.” The Academy will host several sessions during Clinical Congress 2024, including “Value of the ACS Academy of Master Surgeon Educators Across the Surgical Specialties” and “Recent Advances in Surgical Education.”

### **ACS Cognitive Simulations: Cases Essential to Surgical Practice**

This e-learning product uses cognitive simulation to teach postgraduate year-3+ surgical residents how to approach complex decision-making and management of surgical problems—from preoperative assessment to perioperative care and management, including complications. The program currently includes 55 cases with more scheduled to be released in fall 2024.

### **ACS Fundamentals of Surgery Curriculum® (FSC)**

Launched in 2005, the FSC is a highly interactive, case-based, online curriculum that addresses the essential content areas surgical residents need to master in the early years of training. It includes 108 interactive case simulations in 14 domains. In 2023, 1,139 residents from 179 residency programs participated in the curriculum.

### **ACS Surgeons as Educators Course**

Designed to provide surgeons with the knowledge and skills to enhance their abilities as teachers and administrators of surgical education programs,

this 6-day intensive course includes sessions that incorporate a comprehensive review of surgical education principles and practice, and use a variety of contemporary educational frameworks and effective education strategies to achieve the best outcomes. The course—now offered twice a year—was held in March 2024, with future courses planned for September 2024 and March 2025.

#### **ACS Surgeons as Leaders: From Operating Room to Boardroom Course**

The 2024 course, held March 24–27 in Durham, North Carolina, was redesigned to increase individualized learning and interaction with the faculty. A record 235 applications were received for 64 seats. The 2025 course will be held March 23–26 in Durham, North Carolina, to address today’s evolving challenges in healthcare from a leadership perspective.

#### **Clinical Congress 2024**

To facilitate increased participation by practicing surgeons, the footprint of Clinical Congress 2024 in San Francisco, California, has been moved into the weekend, starting on Saturday, October 19, and ending Tuesday, October 22. Thematic sessions on cardiothoracic surgery, vascular surgery, neurological surgery, education, quality, and artificial intelligence will occur October 20. Additional multidisciplinary sessions will be held October 20–21. A record 2,413 abstracts and 354 video submissions were received this year for the Scientific Forum and Video-Based Education sessions, respectively.

A didactic “Inclusive Excellence: Diversity, Equity, and Inclusion Certificate Course” will be offered at Clinical Congress 2024, with a longitudinal portion that will extend throughout the academic year. Three pathways for learners will be offered, and it is expected that 75 participants will receive a certificate in June 2025.

#### **Fellowship in Surgical Ethics**

Offered for the first time in 2015, the Fellowship in Surgical Ethics is sponsored by the ACS Division of Education and The MacLean Center for Clinical Medical Ethics at The University of Chicago. The program is intended to prepare surgeons for careers that combine clinical surgery with scholarly studies in surgical ethics and to provide the specialized knowledge, skills, and training to develop leaders in the field of surgical ethics. Recipients selected for 2024–2025 include Melanie L. Fritz, MD, of Madison, Wisconsin, and Joy Obayemi, MD, of Ann Arbor, Michigan.

#### **Surgical Education and Self-Assessment Program (SESAP®)**

SESAP continues to establish new benchmarks in self-assessment of cognitive skills and guided learning to achieve expertise in surgery. New SESAP features support personalized education such as building customized assessments to reinforce learning, receiving weekly or bi-weekly links to questions via “SESAP Small Bites,” creating flashcards, and comparing scores and performance with peers enrolled in the program. *SESAP Advanced* focuses on complex and controversial content. *SESAP 19* is expected to be released in October 2025.

#### **Research and Optimal Patient Care**

The Division of Research and Optimal Patient Care (DROPC) encompasses the areas of continuous quality improvement, including ACS research and accreditation programs.

#### **Trauma Programs**

The 2024 Committee on Trauma Annual Meeting, held March 6–8 in Chicago, featured Spotlight Discussion sessions to provide members an opportunity to lead discussions on a topic of interest to

elicit feedback for potential use in program areas and workgroups. The most popular topics included:

- Back to the Future: TeleTrauma Is Here to Stay, So How Do We Actually Get It Done?
- Creating the Future: Defining Pathways for Sustainable Funding of Our Trauma Centers
- Energizing States for Regional Medical Operations Coordinating Center Development

The 2024 ATLS Global Symposium, held March 8–9 in Chicago, was attended by 300 individuals from more than 45 countries. The program included abstracts, updates, feedback to enhance ATLS, networking opportunities, and a presentation of the Country Anniversary Awards. A workgroup has been established to conduct a needs assessment and develop a strategic plan for future symposiums.

The MyATLS App, an innovative educational product enhancing the ATLS program, is expected to launch in 2024. The initial version will contain ATLS 10 content. Gaming options will be included to reinforce educational objectives. A variable pricing model will be implemented based on educational components, hardships, and varying learners. The app will be available globally and will use an equity model with free content for those that live in low- and middle-income countries. ATLS 11 content is scheduled to be available in 2025.

The 2024 TQIP Annual Conference, “Enhancing Quality through Communications,” will be held November 12-14 in Denver. The keynote speaker is Jeff Evans, who helped his blind adventure partner climb Mount Everest. A general session and breakout sessions will delve into how to use improvisation to foster better communication within the trauma team. An Executive Engagement session, “Effective Communications with Hospital Leadership,” will be offered along with sessions on trauma survivorship,

registry, data quality, and using data to improve patient outcomes.

The STOP THE BLEED® (STB) program continues to focus on empowering, educating, and informing individuals in bleeding control techniques with virtual, in-person, and interactive training. Through April 30, the STB program had 3,878,062 overall participants from 164 countries and 158,319 global instructors. The interactive course has been viewed more than 357,000 times.

## ACS Foundation

The mission of the ACS Foundation is to secure financial support for the College’s charitable, educational, and patient-focused initiatives. The ACS Foundation Greatest Needs Fund supports program activities that are not directly aided by public or grant funding and do not produce revenue. As of May 3, the Greatest Needs Fund received \$281,935 for fiscal year 2024.

Also, as of May 3, Foundation staff and Board members raised \$2,927,629 in donations and grants. Gifts from individuals totaled \$2,478,989, including leadership gifts of \$1,000,000 from the Carlino Family and \$750,000 from Pon Satitpunwaycha, MD, FACS. The average individual gift was \$1,488. Corporate support reached \$448,640 and primarily focused on surgical education programs at Clinical Congress and patient education initiatives. The average gift received from corporate donors was \$5,982. **B**

**Dr. Lillian Kao** is Chair of the ACS Board of Governors, as well as division director of acute care surgery, the Jack H. Mayfield, MD Chair in Surgery, and vice-chair for quality of care in the Department of Surgery at the McGovern Medical School at The University of Texas Health Science Center at Houston.

# Member News

## Drebin Is Named President-Elect of the ASA



Jeffrey A. Drebin, MD, PhD, FACS, was named president-elect of the American Surgical Association (ASA). He will take over as president in April 2025. A surgical oncologist specializing in pancreaticobiliary, upper gastrointestinal, and liver surgery, Dr. Drebin is chair of the Department of Surgery at Memorial Sloan Kettering Cancer Center in New York, New York.

## Dent Joins ABS Board of Directors



Daniel L. Dent, MD, FACS, recently began a 3-year term as a member of the Board of Directors for The American Board of Surgery (ABS). Dr. Dent has been a councilor of the ABS since 2018 and is the current chair of the General Surgery Board. He also has served as the chair of the General Surgery Certifying Exam Committee. Dr. Dent is chair of the Department of Medical Education and a professor of surgery in the Division of Trauma and Emergency Surgery at The University of Texas Health Science Center at San Antonio. For the ACS, he is a member of the Advisory Council for General Surgery.

## Rohs Leads Northwest Health Hospitals



Thomas J. Rohs Jr., MD, FACS, is chief medical officer for all Northwest Health hospitals in Indiana. The healthcare network includes outpatient medical centers, urgent care centers, and physician offices, with more than 3,000 employees and 700 physicians. Dr. Rohs practiced general and trauma surgery in Kalamazoo, Michigan, for the past 25 years. During that time, he served as the trauma medical director at Ascension Borgess Hospital and held numerous leadership positions, including chief of the medical staff, chief medical officer, regional president, and CEO.

## Szeto Is Chief of Penn Cardiovascular Surgery



Wilson Y. Szeto, MD, FACS, has been appointed chief of the Division of Cardiovascular Surgery at Penn Medicine in Philadelphia. He also is the Julian Johnson Professor of Cardiothoracic Surgery II at the University of Pennsylvania School of Medicine. With Penn since 2006, Dr. Szeto most recently served as vice chief of clinical operations and quality in the Division of Cardiovascular Surgery and surgical director of transcatheter cardio-aortic therapies.



Have you or an ACS member you know achieved a notable career highlight recently? If so, send potential contributions to Jennifer Bagley, MA, *Bulletin* Editor-in-Chief, at [jbagley@facs.org](mailto:jbagley@facs.org). Submissions will be printed based on content type and available space.

## Clarke Is Named to US Cancer Advisory Board



Callisia N. Clarke, MD, MS, FACS, will be appointed as a member of the National Cancer Advisory Board. The board guides the director of the National Cancer Institute in setting the course for the national cancer research program and complements the Cancer Moonshot. Dr. Clarke is chief of the Division of Surgical Oncology and an associate professor of surgery at the Medical College of Wisconsin in Milwaukee. For the ACS, she serves on the Committee to Advance Diversity, Inclusion, and Equity, as well as the Cancer Research Program Education Committee.

## Cameron Directs Hopkins Surgery



Andrew M. Cameron, MD, PhD, FACS, is director of the Department of Surgery at Johns Hopkins Medicine in Baltimore, Maryland. He also is the surgeon-in-chief of The Johns Hopkins Hospital, as well as chief of the Division of Transplantation and a professor of surgery at Johns Hopkins Medicine.



## Mukkamala Is AMA President-Elect



Srinivas B. Mukkamala, MD, FACS, is president-elect of the American Medical Association (AMA). Following a year-long term as president-elect, he will be installed as AMA president in June 2025. Dr. Mukkamala—an otolaryngologist and head and neck surgeon—practices in his hometown of Flint, Michigan.

## Schumacher Moves to Tufts



Lana Schumacher, MD, MS, FACS, a cardiothoracic surgeon, is the new director of the Center of Innovation and chief of thoracic surgery at Tufts Medical Center and associate professor at Tufts University School of Medicine in Boston, Massachusetts. She previously served as director of robotic thoracic surgery at Massachusetts General Hospital Network and program director of robotic surgical education at Massachusetts General Hospital in Boston. [B](#)

The following articles appear in the July and August 2024 issues of the *Journal of the American College of Surgeons*. A complimentary online subscription to *JACS* is a benefit of ACS membership. See more articles at [facs.org/jacs](https://facs.org/jacs).

## **Locally Advanced Adenocarcinoma of the Esophagus: Is Esophagectomy Associated with Improved Overall Survival?**

*Sarah P. Kramer, MD, James Swanson, Mitchel Fernando, and colleagues*

Esophagectomy in cT4 esophageal adenocarcinoma poses a technical challenge, and its benefit has not been well established. This propensity-score matched National Cancer Database analysis of patients with cT4 non-metastatic esophageal adenocarcinoma shows a survival benefit for esophagectomy in cT4a and cT4b esophageal adenocarcinoma compared with nonoperative management.

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## **Six Square Miles of Urban America: Association between Firearm Discharge, Injury, and Fatality**



*William B. Risinger, MD, Chinweotuto V. Uma, MD,  
Matthew V. Bennis, MD, FACS, and colleagues*

The interpretation of firearm injury incidence is incomplete without accounting for background exposure. Gunshot acoustic detection captures firearm discharge, which is a measure of firearm exposure. Using acoustic detection in conjunction with a collaborative firearm injury database, the relationship between firearm exposure and injury can be explored.

## **Sustaining Lifelong Competency of Surgeons: Multimodality Empowerment Personal and Institutional Strategy**

*Todd K. Rosengart, MD, FACS, Jennifer H. Chen,  
MD, Nancy L. Gantt, MD, FACS, and colleagues*

This review focuses on maintaining and ensuring competency of an aging surgeon workforce. The authors provide evidence-based guiding principles as part of a comprehensive “whole-of-career” strategy that can be adopted at personal, institutional, and national levels.

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