2026 ACS Surgeons and Engineers: A Dialogue on Surgical Simulation Meeting promoted collaboration between surgeons, surgical educators, academic engineers, and the simulation industry to improve simulation-based surgical education and training.

The 2026 ACS Surgeons and Engineers: A Dialogue on Surgical Simulation meeting was held in person at ACS Headquarters in Chicago, IL, on March 10-11, 2026, with optional premeeting workshops. The ACS Surgeons and Engineers Committee of the ACS Division of Education served as the Program Committee for this meeting, and 150 attendees from the United States and 7 other countries attended to discuss technology-enhanced surgical education through simulation.

The keynote address, "25 Years of Simulations and Surgical Learners: An Educator's Odyssey," was delivered by Neal E. Seymour, MD, FACS, surgery residency program director for UMass Chan Medical School-Baystate and vice chair for education in the Department of Surgery at Baystate Health. The keynote framed the meeting by reflecting on the evolution of simulation in surgical education and highlighted how artificial intelligence will likely drive the next evolution of surgical training.

The panel session, "Optimizing Surgical Performance Through Mental Skills," brought together Dimitrios Stefanidis, MD, PhD, FACS, FASMBS, FSSH, and Carter Lebares, MD, FACS. The session highlighted mental skills as an important dimension of surgical performance and emphasized the value of structured training in human performance science in surgical education. The panel session, "Virtual Reality in Medical Education and Training: From Classroom to Clinic," featured Rand Kittani, BS; Claudius Conrad, MD, PhD; Blair Rowitz, MD, FACS; and Joe Bradley, BSE, MS, MBA, PhD. The discussion underscored how immersive technologies can support education, planning, and skills development across the continuum from classroom instruction to clinical application.

The debate, "Is Sustainability an Option in Surgical Simulation?," featured Leonie Heskin, MB BCh BAO, BArch, MArch, MSc(Bioeng), FRCSI, PhD; Deborah Rooney, PhD; and S. Swaroop Vedula, MBBS, MPH, PhD. The session generated lively discussion, and attendee feedback suggested an opportunity to continue the conversation in future years with even clearer framing of the environmental, operational, and financial dimensions of sustainability.

Optional workshops added a more hands-on dimension to the 2026 program. "Transforming Surgical Performance and Education Using Mixed-Reality Technology: How to Get Started in Cross-Disciplinary Teams" was led by Inki Kim, PhD; Avinash Gupta, PhD; and Duo Wang, PhD, all from the University of Illinois Urbana-Champaign. "SSERE-AI: Experiential Learning Tutorial on AI for Surgical Simulation and Education Research" was led by S. Swaroop Vedula, MBBS, MPH, PhD, and Emily Guan, MSE, from Johns Hopkins University.

A total of 100 abstracts were submitted across four categories: Research Abstracts, Research in Progress, Challenges in Surgical Education, and Promoting Technology and Collaboration. Fifteen highly scored abstracts were selected for podium presentations, and 37 outstanding abstracts were presented as poster presentations. Several podium and poster presentations were made by young investigators, including medical/surgical trainees and engineering students. Together, these presentations showcased work in artificial intelligence, virtual and augmented reality, 3D printing, motion analysis, simulation device design, team performance, and collaborative innovation.

The presented abstracts are available on the 2026 Surgeons and Engineers meeting webpage, extending the reach of the scientific content beyond the in-person event.
https://www.facs.org/for-medical-professionals/conferences-and-meetings/surgeons-and-engineers/2026/

Nineteen DIY simulators/models were featured in the third Do-It-Yourself (DIY) Simulator/Model Competition, continuing one of the meeting's most distinctive and highly rated program elements. The first-place awardee was Ibrahim Gomaa, MD, from Mayo Clinic for the “Thyroid Biopsy Ultrasound Training Model.” The People's Choice Award, as voted on by meeting attendees, was awarded to Rozlan Basha, BS, from Edward Via College of Osteopathic Medicine for “VCOM Virginia Laparoscopic Box Trainer.”

Among the 150 attendees, 48 completed the post-meeting feedback survey. 100% of survey respondents rated the meeting overall as good or better, and 89.6% reported that the program

content was relevant to topics of interest to both surgeons and engineers. 81.3% of the survey respondents indicated they are inspired to attend future Surgeons and Engineers Meetings.

The meeting featured support from exhibitors BRC, Lazarus 3D, VirtaMed, and VitVio. Karl Storz provided an industry educational grant. The ACS Division of Education and Surgeons and Engineers Committee thanks these partners for their support of the meeting.

For additional information, please visit the meeting's webpage (www.facs.org/surg-eng) or contact Josh Vognsen, MSHS, CHSOS, at jvognsen@facs.org.