



Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

CORRESPONDENCE

Digital Mentorship in Cardiothoracic Surgery in the Coronavirus Disease 2019 Era



TO THE EDITOR: Dr Whitson's article¹ synthesizes the attributes of successful traditional thoracic surgery (TS) residents. We commend Dr Whitson for recognizing academic productivity may be attributed to strong mentorship. A survey of TS trainees confirmed 84% of respondents had a mentor, of which most viewed mentorship as impacting their specialty choice and as critical to success.² Mentorship and sponsorship continue to play a critical role in surgical career development and have been associated with increased faculty retention and career longevity.³

Coronavirus disease 2019 has limited in-person engagement with mentors; therefore many have taken to innovative ways through the digital world. Structured programs, such as the American Association for Thoracic Surgery Member for a Day and The Society of Thoracic Surgeons Looking to the Future Scholarships, have turned to virtual platforms to publicize and organize their programming. Social media, especially Twitter, has become a place for information sharing, collaboration, networking, and mentorship. The Thoracic Student Medical (@ThoracicStudent) and Thoracic Surgery Resident Associations (@TSRA_Official) host networking and career development webinars for over 3900 followers. Although traditional forms of mentorship are vital to a trainee's career, the #CTSurgery Twitter community offers accessibility to a diversity of mentors that does not discriminate by geographic location or medical school. For example, the Women in Thoracic Surgery (@WomeninThoracic) used Twitter to host speed mentoring events with female cardiothoracic surgeons, which is critical to engaging women, an underrepresented minority in TS. A survey of 282 individuals revealed that TS trainees were more likely to use social media to network, learn about the field, and promote professional interests. In fact 93% of women reported social media enabled them to build a larger network of same-sex mentorship.⁴

Although traditional forms of in-person mentorship cannot be replaced by digital mentorship, virtual platforms can complement traditional mentorship opportunities and create equitable access to research collaboration, scholarship, and informal networking. It allows mentees to find mentors that cater to unmet needs that stem from remote learning and other pandemic restrictions. We encourage aspiring cardiothoracic surgeons, as the mentors of tomorrow, to take part in the #CTSurgery community and construct new paradigms for digital mentorship.

Samantha Xu, MPH

Case Western Reserve University School of Medicine
9501 Euclid Ave
Cleveland, OH 44106
email: samantha.xu@case.edu

Chi Chi Do-Nguyen, DO

Department of Cardiothoracic Surgery
University of Michigan
Ann Arbor, Michigan

Tara Karamlou, MD, MSc

Department of Thoracic and Cardiovascular Surgery
Cleveland Clinic
Cleveland, Ohio

REFERENCES

1. Whitson BA. Attributes of successful thoracic surgery residency matriculants: could it be mentorship? *Ann Thorac Surg.* 2021;112:2076.
2. Stephens EH, Goldstone AB, Fiedler AG, et al. Appraisal of mentorship in cardiothoracic surgery training. *J Thorac Cardiovasc Surg.* 2018;156:2216-2223.
3. Odell DD, Edwards M, Fuller S, Loor G, Antonoff MB. The art and science of mentorship in cardiothoracic surgery: a systematic review of the literature. *Ann Thorac Surg.* 2022;113:1093-1100.
4. Corsini EM, Luc JG, Antonoff MB. Women in thoracic surgery: social media and the value of mentorship. *J Thorac Dis.* 2021;13:464-472.

Mentorship, Sponsorship, and the Emerging Role of Social Media



REPLY TO THE EDITOR: Thank you to Xu and colleagues¹ for their very thoughtful letter in response to my commentary² on the article by Drake and colleagues³ and to the journal for the privilege of replying. Xu and colleagues are correct in their observation and extremely forward thinking in terms of the ever-growing role of digital and social media in thoracic surgery. This evolving presence is one that precedes the coronavirus disease 2019 era and will supersede it as well!

Two important points in the letter from Xu and colleagues need further emphasis. First the need for mentorship and sponsorship are critically important to the developing thoracic surgery trainee and early career surgeon yet are distinct and separate needs. The mentorship role is one of primarily *advising*, whereas the sponsorship role is one of *advocation*. It is the need and ability to sponsor that leads us to the second important point: The ability of digital and social media to facilitate access across diverse mentors without geographic, social, or temporal restrictions.

The influence of digital and social media, particularly for thoracic surgery trainees and early career surgeons, is powerful for both mentorship and sponsorship. Sponsorship emerges in following individuals or societies,

retweeting or reposting, and promoting interesting perspectives, milestones, research, papers, presentations, or life events. As Xu and colleagues also state, social media is able to help grow mature, large networks of mentors, particularly for women.⁴

Although adept use of digital and social media in the current coronavirus disease 2019 era is vitally important to keeping us all connected, in building and maintaining relationships, and for sponsoring our peers, it will not cease to be of intrinsic value as we emerge to in-person events. On the contrary the use of digital and social media will only enhance those in-person events and facilitate connectivity to our peers in different time zones, geography, or social conditions and include their voices in the conversations. As Xu and colleagues state, we should “encourage aspiring cardiothoracic surgeons, as the mentors of tomorrow, to take part.”¹

Bryan A. Whitson, MD, PhD

Division of Cardiac Surgery
Department of Surgery
The Ohio State University Wexner Medical Center
N-825 Doan Hall
410 W 10th Ave
Columbus, OH 43210
email: bryan.whitson@osumc.edu

REFERENCES

1. Xu S, Do-Nguyen CC, Karamlou T. Digital mentorship in cardiothoracic surgery in the coronavirus disease 2019 era. *Ann Thorac Surg.* 2022;114:598.
2. Whitson BA. Attributes of successful thoracic surgery residency matriculants: could it be mentorship? *Ann Thorac Surg.* 2021;112:2076.
3. Drake JA, Diggs LP, Martin SP, et al. Characteristics of matriculants to thoracic surgery residency training programs. *Ann Thorac Surg.* 2021;112:2070-2075.
4. Corsini EM, Luc JG, Antonoff MB. Women in thoracic surgery: social media and the value of mentorship. *J Thorac Dis.* 2021;13:464-472.

Diversity and Inclusion in the Virtual Era



TO THE EDITOR: In the October 2021 issue of *The Annals of Thoracic Surgery*, Han and colleagues¹ reviewed the past 55 years of Presidential Addresses to The Society of Thoracic Surgeons. We read with vigor the lessons from these distinguished surgeons and their lifetime of experiences in leadership. We commend the authors for their thoughtful compilation of invaluable legacy knowledge. Many aspects of the review resonated with us, particularly the need for the specialty to promote diversity and inclusion, 1 of the 6 common themes of some Presidential Addresses.

In the current era of increased awareness, this is the opportune time to call for systemic changes in recruitment paradigms, beginning with ensuring adequate opportunities for underrepresented

minorities. One promising strategy is allocating resources that mitigate financial barriers. In a recent survey, 36.9% of aspiring cardiothoracic surgeons cited financial constraints including application fees and additional costs of “away” rotations as barriers to the field.² Initial changes have already begun in this arena, including the provision of visiting elective scholarships to unrepresented minorities to offset travel and living expenses. These programs often include additional networking and mentorship opportunities such as meetings with program directors. Despite their benefit, these scholarships are extremely selective, often limited to 1 or 2 students per year, and out of reach for most applicants.

Unique to the 2020 application cycle, the COVID-19 (coronavirus disease 2019) pandemic has forced programs to adapt recruiting tactics including expansion of programs’ online presence, virtual journal clubs, and even online externships, which provide additional opportunities to network with faculty.³ Limited preliminary data have suggested that virtual interviews have helped improve diversity of residency programs.⁴ For instance, virtual platforms, by obviating travel and financial constraints facing underrepresented applicants, may promote diversity. However, there are also likely drawbacks to virtual platforms, and additional or complementary strategies may be necessary to mitigate bias. As we emerge from the COVID-19 pandemic, we are hopeful that programs will continue to provide virtual opportunities to engage with underrepresented applicants and reduce the inequities that previous Presidents of The Society of Thoracic Surgeons have challenged our specialty to address.

Lin Chen, BA

Case Western Reserve University School of Medicine
9501 Euclid Ave
Cleveland, OH 44106
email: lxc451@case.edu

Tara Karamlou, MD, MSc

Division of Pediatric Cardiac Surgery
Heart, Vascular and Thoracic Institute
Cleveland Clinic
Cleveland, Ohio

Alejandro C. Bribriescio, MD

Section of Thoracic Surgery
Department of Thoracic and Cardiovascular Surgery
Heart, Vascular and Thoracic Institute
Cleveland Clinic
Cleveland, Ohio

REFERENCES

1. Han JJ, Mays JC, Iyengar A, et al. Wisdom from past presidents of The Society of Thoracic Surgeons. *Ann Thorac Surg.* 2021;112:1372-1377.