See Article page 1419.

Commentary: American Association for Thoracic Surgery Summer Intern Scholarship: Captivating the interest of medical students

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CENTRAL MESSAGE

To accommodate necessary growth in the field of cardiothoracic surgery, we must continually review impactful programs that increase exposure to the specialty.

The projected cardiothoracic (CT) surgeon workforce is dwindling while the need for CT procedures is increasing.¹ To accommodate necessary growth in the field, significant early exposure to CT surgery is critical. This is especially true given that general surgery residents have decreasing thoracic surgery exposure, and integrated CT surgery residents often commit to the specialty by their second year of medical school.^{2,3} Chan and colleagues⁴ report the experience of the American Association for Thoracic Surgery (AATS) Summer Intern Scholarship, an 8-week program that pairs first- and second-year medical students with an AATS member who sponsors them at a host institution. Awardees submit a final report and attend the AATS Annual Meeting. The authors examined a database of all awardees from the program's inception in 2007 to 2017; they also administered a questionnaire sent to awardees about their experience.

There were 356 awardees from 41 medical schools and 39 host institutions over the 11-year period. Most awardees were male (64%) and from American medical schools (94%); racial distribution was not reported. Questionnaire responses were impressive. The program was recommended by 98.7% of respondents, and 81% cited this program as influential in their specialty choice, irrespective of the resulting specialty. Most reported exposure to their sponsor daily (63%) and exposure to the operating room at least weekly (88%). All the respondents performed research,

and approximately one half published or presented their work.

There were some limitations due to the ad hoc nature of the questionnaire. It was sent to the 72% of awardees with known e-mail addresses, and there was a 29% response rate, so the sample represented only 21% of awardees. The respondents were 3 to 13 years removed from the program, with recent respondents still in training. While 15% of all awardees pursued CT surgery, at least 37% of respondents pursued or were planning to pursue the specialty. Thus, the respondents were a heterogeneous group in terms of career stage and unlikely to be representative of the awardees overall.

In addition, some demographic data, such as race/ethnicity, was unavailable. Women were in the minority (36%) of awardees, with a wide range reported year-to-year (20%-47%). The overall award rate also varied widely (22%-100%). Understanding these demographic changes is important for increasing diversity in the program and our specialty. Other scholarships, such as the Women in Thoracic Surgery scholarship, provide mentorship for underrepresented groups and report increased recruitment into CT surgery.⁵

There are several ways to increase interest in CT surgery via meaningful exposure.⁶⁻⁸ The AATS Summer Intern Scholarship employs a multipronged approach through research, mentorship, and clinical experiences and is associated with an increase in CT surgery commitment. The authors offer excellent suggestions to improve the program

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and its continued evaluation, such as a standardized curriculum and creation of an alumni mentorship network. In addition, questionnaires administered immediately after the program would increase representation and accuracy, and long-term follow-up would help determine which aspects of the program are most impactful. As a specialty, we could then continue to invest in increasingly effective programs.

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See Article page 1419.

Commentary: Test drive in cardiothoracic surgery

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Exposure to cardiothoracic surgery is limited in both medical school and general surgery residency, and a lack of exposure can lead to a poor perception and decreased interest in the field.¹ Current projections suggest that by 2025 there will be a shortage of at least 1500 cardiothoracic surgeons, or 25% of the projected need.²

Due to the decreased interest and increased need, there have been many programs and scholarships designed to increase exposure and experience to cardiothoracic surgery.² A decade ago, the American Association for Thoracic Surgery (AATS) took on this challenge with the implementation of an 8-week summer intern scholarship for medical students. This scholarship serves to provide valuable early clinical exposure to cardiothoracic surgery and offer longitudinal mentorship.

Boxiang Jiang, MD, and Stephanie G. Worrell, MD

CENTRAL MESSAGE

Early exposure to cardiothoracic surgery and longitudinal mentorship are the cornerstones to develop medical students' interest into a successful career in surgery.

Chan and colleagues³ eloquently describe the over-a-decade experience with more than 680 applicants to the AATS Summer Intern Scholarship. During the 8-week internship, 88% of the medical students had weekly operating room experience, and the majority interacted with their sponsoring surgeons on a weekly basis.

Beyond just clinical observation, the scholars were paired with a cardiothoracic surgeon who could act as a mentor. A survey of North American general surgery residents has shown that mentorship plays a strong role in promoting interest in the field.⁴ A separate survey of general surgery

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