The Looking to the Future Medical Student Program: Recruiting Tomorrow’s Leaders

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At the 2006 Society of Thoracic Surgeons (STS) annual meeting, the first Looking to the Future (LTTF) group of general surgery residents matriculated through a program designed to encourage residents who are considering, but not yet committed to, a career in cardiothoracic surgery. As the program has matured, more scholarships have been awarded with a high success rate of encouraging residents to apply for thoracic surgery residency programs. Medical student scholarships were added for the 2011 STS annual meeting, and have resulted in significant excitement among students and STS leadership alike by directly engaging those who may possibly apply for integrated 6-year (I-6) residency positions. The methods for mentoring and educating medical students are different from methods used for general surgery resident scholarship winners. The future of the LTTF program is dependent upon translating this excitement from a national to a local level.

The LTTF program for surgery residents had been coordinated by Robert S. D. Higgins and Stephen C. Yang, cochairs of the Best and Brightest Task Force (since renamed the LTTF Task Force), within the Workforce on Graduate Medical Education (since renamed the Workforce on Thoracic Surgery Resident Issues). From 2006 to 2012, general surgery resident scholarship recipients were assigned mentors for the STS annual meeting and participated in a variety of programs, including TechCon, the STS President’s Reception, and thoracic surgery resident-specific events. In 2006, the first year of the program, there were 66 applications for 10 awards. The success from the initial program in generating enthusiasm from both general surgery residents and faculty across the country led to an increased number of awards being coordinated and funded through Dr Higgins’ and Dr Yang’s task force. Applications increased to 83 for 20 awards in 2008. In 2009, there was a decrease in the number of applications to 48, despite an increase in funding for 27 scholarships. During this period, the development and promotion of an I-6 thoracic surgery residency program was being finalized by the American Board of Thoracic Surgery and the Residency Review Committee. The Workforce on Graduate Medical Education, in conjunction with the Best and Brightest Task Force, expanded the LTTF program to include medical students who are interested in, but not yet committed to, a career in cardiothoracic surgery.

The inaugural year for the medical student LTTF program was at the 2011 STS annual meeting in San Diego, California, with 82 medical students applying in the fall of 2010 for 10 awards. The selection criteria for the medical students mirrored the criteria established for general surgery residents, notably: (1) medical students interested in, but not committed to thoracic surgery; (2) preference given to students from institutions lacking a thoracic surgery residency program; (3) limiting the scholarship to one awardee per institution per year and attempting to minimize the repetition of institutions in consecutive years; and (4) create a diverse group based on sex, background, geographic area, and subspecialty interest. The first 10 medical students arrived in San Diego in 2011 and participated in a unique program designed specifically for them. They were also assigned faculty mentors (as were the general surgery residents), but a more formalized program was developed to educate the medical students about a career in cardiothoracic surgery and to introduce them to different levels and lifestyles within the specialty. Given their younger age and more limited experience in attending a national medical meeting, the medical students were deliberately provided with more structure on site to enhance their exposure to various educational didactics and to increase their interactions with practicing surgeons.

The first year of the medical student LTTF program appeared to engender even more enthusiasm, and given the larger number of applicants for the medical student program than for the resident program (82 versus 63), the number of medical student scholarships was increased to 20 in for the 2012 STS annual meeting. In the fall of 2011, 97 applications for the medical student program were received, versus 70 general surgery applications. In 2012, there were 84 medical student applicants, again outnumbering the 73 general surgery resident applicants. Twenty medical students, ranging from first year to fourth year, were selected to attend the 2012 and 2013 STS annual meetings (Fig 1). There was a notable increase in the competitiveness of the applicants, with students applying from all over the country and from a diverse group of institutions, including those with strong thoracic surgery residency programs and those without a thoracic
An increased interest in thoracic surgery at the medical student level mirrors the national data as seen in the number of traditional 2-year and 3-year thoracic surgery residency program and I-6 thoracic surgery residency program applications (Fig 2)[1].

Owing to the variable exposure to cardiothoracic surgery in medical school, and the goal of seeking out medical students without significant local cardiothoracic surgery mentors, the LTTF medical student program has been tailored to provide increased one-on-one time with faculty mentors and to offer a dedicated introductory program about cardiothoracic surgery. The 2012 and 2013 medical student agendas started on Saturday night with an informal group dinner for medical students and their mentors, followed by programming coordinated by faculty. Sunday morning has been the focus of the overall agenda, with a 4-hour program including talks dedicated to the history of cardiothoracic surgery addressing misperceptions of the field, planning for the fourth year of medical school with an interest in cardiothoracic surgery, and a panel presentation by residents or faculty (Table 1). The remainder of Sunday involved Tech-Con, a separate LTTF reception for both the general surgery residents and medical students, and the STS President’s Reception that...
evening. Monday and Tuesday’s events began with a 7:00 AM 60-minute question and answer session with a LTTF faculty member, and then attendance at plenary session lectures, including the Presidential Address and other named lectures. On Monday, scholarship recipients attended the thoracic surgery residents association luncheon, which covers topics relevant to thoracic surgery residents such as career advice, finding a job, and so forth. In 2012 and 2013, Women in Thoracic Surgery (WTS) has invited LTTF scholarship recipients, along with their own scholars, to their hosted reception and invited lecturer on Monday night. The medical student agenda has ended by Tuesday midday with students returning to their medical schools. Mentors were asked to take their students to dinner on Monday night, resulting in cardiothoracic faculty involvement on Saturday, Sunday, and Monday nights for each medical student.

The results of the overall LTTF program are clearly positive so far. For the general surgery resident program, Dr Yang presented “interim” results to the Thoracic Surgery Directors Association general session in 2009. With only 4 years’ worth of awards, 53 different institutions have sent a general surgery resident to participate in LTTF. More than a third of the participants were women, compared with only 14.2% of applicants to thoracic surgery residency programs in 2008 [2]. More than 80% of participants who were still in general surgery residencies had either matched or were applying to thoracic surgery residency programs. It is unclear how many people were truly interested in thoracic surgery at baseline, but the LTTF program either attracted many people to the field or served as a retention tool to prevent general surgery residents from losing interest. Comments from this group included “[t]he more exposure that surgery residents get in thoracic [t]he more likely they will go into the field”, and “[t]he STS can help dispel the myth that CT surgery is a dying field.”

The LTTF medical student program has been a unique opportunity to gather students at a national level and to educate and motivate them toward a career in cardiothoracic surgery. The first year of the program resulted in 82 applicants from 47 different schools. More than half of the accepted participants in the medical student program have been women. It will require a few more years of follow-up with the medical student participants to assess the effectiveness in cultivating their long-term interest in our field. This program is not cost effective for recruiting all potential future trainees. We must translate this enthusiasm and mentorship to a local level, involving all thoracic surgeons, at both academic and nonacademic practices. It is clear that even at medical schools without a thoracic training program, there is a significant interest in thoracic surgery (25 of the 97 applicants in 2012). The organizing committee for the LTTF medical student program will continue to engage students, and looks forward to increasing the participation by all thoracic surgeons.

**References**