See Article page 1431.

Commentary: Building an academic cardiothoracic surgical program: The Baylor experience

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CENTRAL MESSAGE

Multiple strategies are available to programs large and small to support, promote, and enhance academic surgical programs.

The premise of the academic surgeon pursuing research and teaching while rendering clinical care has been challenged since its conception by Halsted as one of the “four horsemen” of Johns Hopkins more than a century ago. Although a minority in the medical community, surgeons’ contributions to medical innovation have nevertheless been robust and longstanding. From Lister’s discovery of the principles of antiseptics to Starzl’s advancement of solid organ transplantation, surgeons’ academic accomplishments have claimed Nobel Prize stature in the leadership of academic medicine.

And yet, notwithstanding the high research impact of surgeon-scientists, the academic success of all clinician-

investigators faces growing challenges from new clinical and regulatory burdens.¹⁻³ Yarboro and colleagues in their accompanying commentary note several important strategies to combat these challenges.⁴ Like our University of Virginia colleagues, we have found that the mainstay of academic accomplishment is a culture of excellence, as embodied in the legacy of our department’s namesake, Dr Michael E. DeBakey. At the core of this culture of excellence is a robust academic infrastructure, supplemented by the power of a “just culture” wherein innovation is propelled by a diversity of thought and the freedom to speak out to respectfully question accepted norms of practice.⁵

Invaluable in our culture are our academic relative value unit and faculty promotion programs, which leverage the transparency of point systems recalibrated annually by our department mission committees to incentivize academic priorities—the former an expanded version of a model reported by the University of Virginia group.^{6,7} Our 70-member Office of Surgical Research likewise reinforces our commitment to research with “close to home” clinical trials, grant management, and biostatistical and other support for our faculty and trainees. Together with our internal grant review program, through which each proposal for external funding is reviewed by peers with extramural funding, this academic support infrastructure has catalyzed a 6-fold growth in our research portfolio over the past 5 years to more than 200 translational research grants and clinical trials.

The academic aspirations of our faculty and trainees are encouraged through other resources as well. Our Office of Education supported one of our junior residents in realizing her vision of a 7-year Global Surgery Residency, the only such National Resident Matching Program-listed track in the United States.⁸ Our multifaceted research engagement program (interactive educational workshops plus support

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from our research infrastructure) was associated with an increase in publications by our general surgery residents.⁹ Our seed grant program, highlighted annually during our all-department Research Day, has returned more than \$5.7 million in extramural funding on \$340,000 invested. Our Surgery Incubator sponsors faculty prototyping grants and Speed Networking with collaborators at neighboring institutions, advancing more than 50 inventions into patent disclosures and even commercial entities. Annually, our Continuing Medical Education office sponsors conferences drawing more than 1000 participants, and our Communications office garners more than a million social media impressions.

A NASA-inspired human performance analytic embedded in our clinical quality conferences exemplifies our just culture, supporting nonjudgmental identification and amelioration of “human factors” in surgical complications.^{9,10} A collaboration with the American Airlines Flight Safety Academy yielded online error reporting and leadership training programs for residents and faculty. Finally, our Social Equity Committee guides us in exploring potential gender and racial biases in our department. They led us this summer in a compelling grand rounds on bias, featuring a police violence victim interviewed by his cousin, a faculty member.

Our top-decile reputational score in *US News and World Report* and our Association of American Medical Colleges faculty satisfaction score of 85%—15 points higher than our cohort peers—reflect the return on investment that

fostering academic support can have on department vitality. Although creating extensive infrastructure may be challenging for smaller divisions or departments, we believe the model of cultural support for the academic mission can be advantageous for any program.

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