Identifying barriers to basic science research among academic surgeons
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In an analysis of challenges that academic surgeons across the country face in pursuing basic science research, surgeon-scientists at Baylor College of Medicine in association with colleagues from institutions around the country identified three main factors that are impeding surgeons' ability to be successful in basic science research: clinical demands, work-life balance and increased administrative duties. Their report appeared this week in the *Annals of Surgery*.

"Over the past 15 years, interest among surgeons in conducting basic science research has been steadily declining, so we undertook a study of academic surgeons to ask them to identify the main obstacles that keep them from doing basic science research," said Dr. Sundeep Keswani, lead author on the paper, associate professor of surgery at Baylor and director of surgical research and a pediatric/fetal surgeon at Texas Children's Hospital. "If we as surgeons don't address surgical issues from a basic science standpoint, who will do it? More importantly, how will we continue the legacy of surgical advancement that has been borne out of surgical scientific discoveries that have benefited so many patients? We are the only ones that will be focused on these surgical diseases and can move our field forward."

Keswani was a part of the Basic Science Committee of the Society of University Surgeons, which was tasked with identifying these barriers. The committee was established by Dr. David Hackam, the surgeon-in-chief of Johns Hopkins Children's Center, in 2014 when he was president of the society, and chaired by Dr. Allan Goldstein, surgeon-in-chief of the Mass General Hospital for Children and senior author of the study.

The first step, however, was to identify that basic science research was in fact declining among academic surgeons rather than being a perceived problem. To do so, the committee tracked funding from the National Institutes of Health and found that the amount of funding for this type of research to academic surgeons has declined in the past 10 years compared to basic science funding in other hospital departments. They also found that the number of basic science abstracts presented at the annual Academic Surgical Congress declined by 50 percent over the past five years.

"The significant reduction of funding from the NIH over the last decade has been disproportionate for surgeons, and the consequence is a generation of young surgical trainees who believe that basic science is not worth pursuing," said Keswani.

The committee then surveyed academic surgeons across the country based on what they thought the barriers were. More than 1,100 surgeons responded, equally representing division chiefs and chairmen, senior faculty, junior faculty and trainees in surgery. From this data, they identified three major challenges:

- Clinical demands
- Work-life balance
- Excessive administrative duties

"We either need to address these issues on a national level or resign ourselves to the likelihood that surgeons will not be making the fundamental discoveries about the disease that we as surgeons treat and that will be to the detriment of our patients," said Keswani.

Provided by Baylor College of Medicine