Commentary: National Institutes of Health funding by thoracic surgeons: It is good to have a strong beacon rather than just a candle

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This paper by Hernandez and colleagues¹ is an excellent summary of cardiothoracic surgery funding from the National Institutes of Health (NIH), National Cancer Institute, and other governmental funding agencies and the change from 2010 to 2020. Most academic thoracic surgeons probably will find great interest in this paper. Recently, there have been a number of publications describing the rate and predictors of NIH funding in our specialty and how to write a successful grant proposal.²,³

In the current study, all Principal Investigators (PIs) on NIH-funded grants in June of the years 2010, 2015, and 2020 were identified. Sixty-one of 4681 (1.3%), 63 of 4484 (1.4%), and 60 of 4497 (1.3%) of cardiothoracic surgeons were PIs on NIH-funded grants in 2010, 2015, and 2020, respectively. These rates were somewhat greater than those for most other surgical specialties. While total funds and total funded grants increased, as one would expect due to inflation and budget increases, the total number of funded investigators stayed about the same and actually decreased slightly for cardiovascular-related grants. Most other surgical specialties saw increased proportions of NIH-funded PIs from 2010 to 2020, whereas the number of cardiothoracic surgery–funded PIs did not change. Total NIH costs for thoracic surgery–initiated grants increased 57% from 2010 to 2020 compared with a 33% increase in the total NIH budget. Whereas the majority of grants and costs were cardiovascular-related, increased NIH funding in cardiothoracic surgery was due mainly to funding for transplant- and oncology-related grants.

It is somewhat surprising and a bit disconcerting that awards to 5 surgeons accounted for 33% of NIH costs for Thoracic Surgery Principal Investigators (TS-PIs) in 2020, a phenomenon that was also observed for the years 2010 and 2015. Also, there were only two T32 training grants in all 3 years. This is not a good thing. Women have increased in the thoracic surgery workforce and have increased in proportion to men in receiving funding. This is a great thing. Under-represented minorities were not considered, and data regarding this may not be available.

What can we do as thoracic surgeons to improve our funding statistics? Dedicated time for research during training has been shown to improve academic productivity, the rate of NIH funding, number of publications, and rapidity of promotions. Emphasis on research, both basic and clinical, should continue, and those fortunate enough to receive a grant or publish a paper should be recognized. Young surgeons, especially those with research training, should be encouraged to submit grant proposals. There is no assurance that you will get funded if you submit a grant to NIH, but there is a 100% guarantee that you will not get funded if you do not submit a proposal. Grant writing is an art as much as a science. Have a good idea and present your thoughts in a convincing manner. Allow yourself to be...
mentored by experts in your intended field of research who have been very successful at receiving grants.

References