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COMMENTARY

SAEM Training Grants: Hoping Prior Performance Indicates Future Results

Career development awards for new investigators from foundations, specialty societies, the National Institutes of Health (NIH), and other organizations have been considered critical to developing independent researchers. These grants provide awardees salary support (thus protected time) for research training and supervised research and ensure that they receive mentorship from accomplished researchers. This experience then provides the foundation for awardees to successfully compete for larger research grants (such as NIH R awards) and achieve research independence as recognized experts in their fields. The NIH and Agency for Healthcare Research and Quality (AHRQ) support this model and fund a career development award (K award) portfolio that has awarded over \$8 billion since 1957.¹

In the early 1990s, the Society for Academic Emergency Medicine (SAEM) sought to reduce the challenges faced by emergency physician-scientists who aim to become independent researchers and to advance the science of emergency medicine (EM).² SAEM funded several training grants and specifically established the Research Training Grant (1998) and the Institutional Research Training Grant (2002) as the flagship opportunities. Now funded by the SAEM Foundation, these grants are thought to be important initial opportunities for new investigators who desire to successfully compete for NIH and AHRQ K awards. However, the evidence for the value of these awards has been limited to a description of the trajectory of SAEM grant recipients.³ The Society had intended for the SAEM grants to prepare EM researchers to apply for K awards, just as the K awards prepare researchers to compete for and receive NIH independent research grants (R01).⁴

Assessing the value of research grants is critical for multiple reasons. First, individuals who contribute to the organizations that fund the SAEM Foundation's awards want to know that their donations are being invested efficiently and effectively with a high "return on investment." This return is commonly measured by assessing researchers' success at publishing their findings and securing additional research funds. Second, information related to the value of the awards can guide organizations such as SAEM to revise funding mechanisms, invest additional resources, or create new funding mechanisms

to meet their missions. Third, department chairpersons pay a significant share of the costs for each of their faculty members who receive an SAEM research award, often in excess of \$100,000 per year. To make this investment, the chairperson needs to be confident that the award will improve the likelihood of that faculty member developing into an independent researcher, with additional grant funding and publications.

In this issue of *Academic Emergency Medicine*, Dr. Safdar and colleagues,⁴ on behalf of the SAEM Grants Committee, have built on previous work and they compare individuals who received and who did not receive SAEM Research Training Grant and Institutional Research Training Grant awards. They found that SAEM training grant recipients were more successful in obtaining federal funding and received greater monetary awards than those who did not receive the SAEM awards. Both recipients and nonrecipients have similar numbers of publications after their awards.

This study has important limitations, which include only using NIH RePORTER to capture postaward funding, not measuring manuscript quality and having only a small number of grant recipients and nonrecipients. Despite these limitations the study has two key implications. First, donations to support research at SAEM have significant value in developing federally funded EM researchers, congruent with the goal of improving the disproportionately low level of NIH funding to EM. Thus, when individuals are considering the targets for their charitable giving, they should strongly consider supporting the SAEM Foundation research grants.

Second, SAEM should use these findings, in conjunction with the funding environment, to consider the makeup of its grant portfolio. After the doubling of the NIH budget between 1998 and 2003, a so-called "euphoria" period, the research community has experienced the "hangover" and now is experiencing the effect of a net decline in funding.⁵ These funding realities are reflected in the number of active NIH K awards each year, with only 346 K08 awards and 555 K23 awards being active in 2013. This was the lowest combined total since 2000, the second year of the K23's existence.⁶ To successfully compete for federal research funding in this environment, it is even more important to ensure that EM researchers are prepared. As the Research Training Grants have been considered a first step in obtaining an NIH Career Development Award (K08 or K23), these preliminary

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awards are even more important in this difficult funding environment to ensure that EM applicants for NIH K awards are highly competitive. Thus, increasing the number of training grants will strengthen the pipeline of emergency care researchers and support SAEM's mission of leading the advancement of emergency care through research.⁷

Emergency medicine research has come a long way since the Future of Emergency Medicine Research Conference in 1997. Because SAEM has invested in training grants to build the pool of active researchers, EM research has grown significantly.² Nevertheless, a shortage of adequately trained investigators still exists.⁸ Continued support of the career development awards is necessary to sustain the momentum. We now have evidence to justify that support.

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