

# PEDIATRICS PERSPECTIVES

## The Missing Link of NIH Funding in Pediatric Research Training Program Restructuring

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**KEY WORDS**

research, funding, National Institutes of Health

**ABBREVIATIONS**

NICHHD—Eunice Kennedy Shriver National Institute of Child Health and Human Development

NIH—National Institutes of Health

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### PERSPECTIVE

The restructuring of pediatric and other academic programs is intrinsic to academia and has long been a reflection of leadership turnover. In pediatrics, department chairs turn over on average once every 5 years.<sup>1</sup> With such leadership changes comes enthusiasm and introduction of fresh ideas that herald novel departmental directions. Yet, in the era of extremely competitive National Institutes of Health (NIH) funding, the current standards for awarding training program support make new program development challenging.

As a faculty member at Yale University and Associate Chair for Research in Pediatrics, I stewarded a portfolio of departmental T32 and K12 awards that supported biomedical research training of residents, fellows, and junior faculty members in a broad array of pediatric subspecialties. When I drafted the successful Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHHD) K12 Child Health Research Center Program proposal and the T32 proposal to support basic science training, the Yale program had more than 20 years of continuous K12 support. At that time, the Yale Department of Pediatrics existed for more than 100 years and had decades of success in the training of physician-scientists. Each of the T32 and K12 proposals were funded on first submission.

Approximately 2 years ago, I relocated to the University of Florida with a strong portfolio of NIH research awards but lacking in T32 or K12 awards. Efforts were thus undertaken to climb into the echelon of NIH-supported training programs through submission of T32 and K12 applications. Patterned after the successful proposals I authored at Yale, the training plan had NIH-funded mentors, all of whom mentored physicians; had formal didactic training plans; trainee evaluation procedures; and a pool of bona fide candidates. Yet, the University of Florida-based proposals scored poorly. It was appropriately noted that the department was at the start of a rebuilding program, but the lack of demonstration of the effectiveness of newly proposed training programs was viewed to be a major weakness. Thus, a newly proposed program, structured along the lines of a proven training model, was judged by a benchmark applied to established programs.

It is recognized that the past success of established training programs is a harbinger of future academic achievements and deserves to be rewarded. But, we also need to recognize that support is needed for

more recently established programs and programs in the midst of restructuring. These needs may be especially pressing for programs that fill needed geographical and thematic niches. Florida, for example, is the third most populous state, yet ranks 16th as a state in NIH funding.<sup>2</sup> Despite 7 medical schools and 2 osteopathic schools, there are no T32 or institutional K12 programs focusing on biomedical pediatric research in the state. Of the medical and osteopathic schools in Florida, more than half are less than a decade old. And, for those medical schools that are older, there has been a focus on the need to meet the clinical needs of the state, which has a substantial physician shortage.<sup>3</sup>

It is important to recognize that our experience in obtaining NIH support for a new training program is not unique. Data are not readily publically available as to the number of T32 applications that are received by the NICHD and assigned to the different training grant review panels. Yet, data are available on NIH Reporter (<http://projectreporter.nih.gov/reporter.cfm>) pertaining to NICHD T32 awards given to support postdoctoral fellows of pediatric programs reviewed by the NICHD T32 review panels ZHD1-DRG 55, 59, and 90, over the years

2011, 2012, and 2013, respectively. These panels met once per year to review training proposals submitted to the NICHD. These data indicate a paucity of awards for new programs to pediatric programs (ie, not a competitive renewal). After the above noted panel and NICHD council reviews, 16 T32 awards were issued for pediatric-related postdoctoral training. Thirteen of these awards were competitive continuations from programs with an average of 11.9 years of previous T32 funding. Two awards went to new T32 applications: 2 after review by the 2011 panel, 1 after the 2012 panel review, and none to a new program after the 2013 panel review. Furthermore, the 3 new awards went to established institutions with other NIH T32 and/or NICHD K12 awards.

When examining the collective pediatric and nonpediatric awards that followed the reviews of these panels, 22 awards were issued as complete renewals for T32 programs with an average of 15.0 years of previous funding, and 4 new applications again to established programs.

Yet, as the above data reveal, climbing up the rungs of the funding ladder for relatively new and restructuring

programs is much more difficult than for longstanding programs. From a practical vantage, more than 5 years, at least, will need to pass before new program graduates can prove program effectiveness. Imposing this time frame is unrealistic for programs needed to meet regional or programmatic research needs. Furthermore, when new T32 and K12 training programs compete head-to-head with established programs, the outcome is predictable.

As such, we should consider creating a dedicated pool of T32 and K12 funding support for new and/or restructuring programs. Recognizing that successful programs are likely to continue to be successful, applicants with currently funded NIH-supported training programs could compete for a larger share of training grant support than new programs. The established cohort of programs would be judged among each other to gauge their relative success. New programs, in turn, would compete for a relatively smaller pool of funding. These programs would be judged on program structure. Applying this proposed model, pediatric programs that are either new or restructuring may be able to adequately compete for the missing link of NIH support.

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