

## Training the Next Physician Scientists

In this issue of *IOVS*, Ambati and Cahoon<sup>1</sup> provide thoughtful suggestions for increasing the number and success of medical doctors (MDs) who run active research programs. My own observations over the past 2 decades concur with those of Ambati and Cahoon<sup>1</sup>: our current Medical Scientist Training Program (MSTP) has failed to provide sufficient numbers of physician/scientists to assure that important observations from the clinic are brought to the lab for essential translational research. The MSTP program in the United States is quite expensive and, considering its declining output, appears inefficient. Ambati and Cahoon's<sup>1</sup> suggestions would cost no more and appear likely to have greater success. I hope that their ideas will encourage experimentation with new ways to assure that the research pipeline remains accessible to clinician-scientists.

As a basic scientist with no formal medical training, I have been able to observe the MSTP program and the training of ophthalmology residents from my perspective as a member of an outstanding ophthalmology department at an excellent university. It has been evident to me that most MD/PhDs from our training program do not continue on with active research programs. Those who do, face a difficult transition from their residency and specialty training to an independent research career. By making it easier for those committed to science to be successful in our very competitive research world, it would add greatly to efforts to bring clinical

observations to the lab and move scientific discoveries back to the clinic.

My own approach to this problem has been to learn all I could about clinical ophthalmology, and to work with clinicians to establish research teams that include observant clinicians and basic scientists. From my perspective, this approach has been very successful. However, it requires that basic scientists and clinicians actively "reach across" a cultural divide that is introduced during our training. That is, most basic scientists and clinicians inhabit two distinct cultures with different languages, different reward systems, and different measures of success. Finding ways to reduce the barriers to communication and cooperation is one of the most important paths to increased success in translational research. I think that Ambati and Cahoon's<sup>1</sup> suggestions would reduce these barriers from the clinical side. Active participation of basic scientists with their clinical colleagues and their patients would be another important step in this direction.

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### References

1. Ambati BK, Cahoon J. Rejuvenating clinician-scientist training. *Invest Ophthalmol Vis Sci.* 2014;55:1853-1855.