



Desperately seeking diversity

It is worthwhile to consider the basis for success in achieving diversity in MD programs and the failure to do so in PhD programs and to ask what can be done to remedy the situation. One reason medical schools have been more successful in achieving diversity than PhD programs is that more attention has been paid to the need for diversity.

As the result of great efforts to improve diversity among the nation's medical students, 46% of 2004 graduates from US medical schools were women and 14% were from underrepresented minority groups (1). This shows a steady improvement over the same statistics from ten years ago, when 42% of medical school students were women and 12% were members of these groups (2). Unfortunately, the picture in doctoral programs in the basic sciences is much bleaker for underrepresented minorities. As of 2002, only 6% of students receiving PhDs in the biomedical sciences were from underrepresented minority groups, while 44% were women (3).

Directors and admissions officers of PhD programs are only just beginning to understand the importance of diversity; to a large extent, this emerging awareness is being driven by NIH policies, which now require training programs to demonstrate diversity. Failure to do so can and does result in loss of funding.

Stimulated by such a possibility, my colleagues and I at Columbia University College of Physicians & Surgeons were prompted to reach out. My assignment four years ago was to contact the Department of Biological Sciences at Hunter College in New York City. Over 50% of the students at Hunter College are members of underrepresented minority groups. Since Hunter College and Columbia University's Health Sciences campus are about five miles from one another, I thought, "This will be easy — I'll give a talk and invite some of the Hunter students to visit labs at Columbia. One thing will lead to another, and before you know it, they will be applying to our graduate training programs."

Wrong! I found out that the perception of Columbia among many Hunter students was that we are ensconced at an elite, uncaring institution that is not a friendly place for minority students. After I recovered from my shock (Columbia University is actually a very friendly place — but one

that had not made enough effort to reach out), I realized that something more was needed in order to reverse years of inadequate efforts to achieve diversity in our graduate training programs.

I decided to set up a summer research fellowship program for minority students. In the past four years, about 50 students have participated in this program. I match each student with a mentor. Students spend eight to ten weeks working in a lab and present their work in a poster session at the end of the summer. The responses to the program have been largely positive, as multiple students from the program have applied to graduate programs and several are currently enrolled at Columbia University.

This program has been the most successful one at our medical school in terms of attracting minority students to the opportunities available at Columbia University for training in the biomedical sciences. Of course, the long-term hope is that a graduate of the program will join our faculty in the basic sciences following completion of graduate school and postdoctoral training. When this happens, we will know that we have succeeded.

What have I learned from this experience? First, being at a great university in a great and diverse urban environment does not guarantee success in recruitment of a diverse graduate student body. An effort to reach out still has to be made; everyone means well, but it is easy to forget about the issue of diversity while being crushed under the pressure of grant deadlines, papers, and teaching loads. Fundraising to extend the pilot program is ongoing so that minority students from other New York City undergraduate programs can participate in the Columbia University Summer Research Fellowship program. More importantly, I have learned that the greatest reward comes from students whose lives are touched by someone who makes an effort.

In an ideal world, if similar programs existed at major medical centers around

the country, the small number of minority students enrolled in basic science graduate programs would expand quickly, and in 10 to 15 years, it would no longer be unusual to meet minority faculty in these programs.

Of course, much more needs to be done beyond programs such as the one that we have here at Columbia University. Support systems for minority students have to be developed and become more sophisticated. The challenges for minority students are different from those addressed by the current Columbia University program and will likely require specific approaches and solutions that are not readily available on most graduate school campuses. Innovative programs that enhance the likelihood that minority graduate students will return as faculty after they complete postdoctoral training need to be developed and funded.

The NIH has done a great job of highlighting the need for diversity and providing funding in the form of minority supplements to R01 grants. Other funding agencies should be encouraged to take up this model and require bona fide efforts on the part of all funded investigators to train minority students and postdocs. The carrot and stick model can work. Indeed, it would be interesting to see what would happen to the statistics on diversity if the NIH indirect costs rate were to be pegged, at least in part, to the level of diversity achieved in graduate programs and among faculty. I am sure that other individuals and institutions have made similar and likely far more effective efforts to address the question of lack of diversity in graduate training in the basic sciences. These efforts need to be publicized and held forth as models.

1. Association of American Medical Colleges. Facts — applicants, matriculants and graduates. Graduates class of 2004. <http://www.aamc.org/data/facts/2004/factsgrads1.htm>.
2. Association of American Medical Colleges. Facts — applicants, matriculants and graduates. Matriculants by gender and race/ethnicity, 1992–2001. <http://www.aamc.org/data/facts/archive/famg72001a.htm>.
3. National Center for Education Statistics. Digest of education statistics, 2003. Chapter 3. Postsecondary education. <http://nces.ed.gov/programs/digest/d03/tables/dt271.asp>.

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