

the years of education and training required to become a physician, for example; have little appreciation of the degree to which educators are involved in research and patient care; don't understand how research improves patient care; and don't realize how much care academic medical centers and teaching hospitals provide for underserved and uninsured patients.

Without a full understanding of what such institutions do, legislators have no way to anticipate the impact that their budget cuts may have on academic medical centers.

Funding: In New Hampshire, funding for DHMC is in jeopardy partly because people don't understand what graduate medical education is, explains Gina Balkus, DHMC's director of government relations for New Hampshire. Balkus organized the PME program along with Dr. Worth Parker, DHMC's director of graduate medical education, and Frank McDougall, vice president of government relations for the Medical Center. It was such a success that they plan to offer it again in June.

"Legislators who took part in the program now understand the challenges we face as an academic medical center," says Balkus. In fact, Senator Clegg, who is the chamber's majority leader, has expressed an interest in establishing a loan forgiveness program for DMS graduates who agree to practice in New Hampshire's underserved areas. "This is a direct result of his participation in the PME," says Balkus.

LAURA STEPHENSON CARTER

INVESTIGATOR INSIGHT



In this section, we highlight the human side of biomedical investigation, putting a few questions to a researcher at DMS-DHMC.

Michael Beach, M.D., Ph.D.

Associate Professor of Anesthesiology

Beach, a medical statistician as well as an anesthesiologist, studies the impact that movie exposure has on adolescent smoking behavior. His other research interests are pediatric sedation safety and screening in underserved populations.

What made you decide to go into statistics?

It's fascinating—it has just the right amount of complex mathematics, computer programming, and application to real problems. And while many people think that statistical techniques haven't changed since the publication of Euclid's *Elements*, the field is quite dynamic. The analysis of longitudinal data and techniques for computing missing data are two of the more recent advances. Deleting from a statistical analysis patient records in which only some of the relevant data is missing can lead to errors of bias and loss of precision.



What clinical areas do you specialize in?

I spend some of my clinical time involved with pediatric anesthesia and some involved with ultrasound-guided regional anesthesia.

If you hadn't become a medical scientist, what would you like to be?

Probably a high school math teacher. I was a telephone solicitor for a summer, and I know that I wouldn't do that again.

What's the last book you read?

I recently read *Flyboys* and *Flags of Our Fathers*, both written by James Bradley. I am in awe at what those men did and what they endured as pilots and soldiers in World War II.

If you could travel anywhere you've never been before, where would it be?

Either Mongolia or Bhutan. I'd like to do some horseback riding in Mongolia and also see some of the festivals there.

What is the toughest lesson you've ever had to learn?

The one I haven't been able to learn is not to put off tasks until the very last minute.

What about you would surprise most people?

Not much, I hope.

Who was your scientific mentor?

As a statistics graduate student, I did my dissertation with Paul Meier. He was a pioneer in the development of tools to analyze censored data. The Kaplan-Meier curve is his most well-known contribution to the field.

What professional accomplishment are you most proud of?

I have had the good fortune to volunteer with Interplast (www.interplast.org), an organization that provides plastic surgery to patients in developing countries. I help provide the anesthesia care for children who primarily are having cleft lip or cleft palate repairs. These are children who potentially would grow up as adults with a facial deformity that we just don't see in this country because every child who has it gets it repaired. With Interplast, I have traveled to Nepal, Bangladesh, Timbuktu, and Vietnam.

What advice would you offer to someone contemplating going into your field?

I think the ability to read the medical literature critically demands that every physician have an understanding of some basic statistical concepts—not advanced methods. Almost all "statistical" mistakes are in the interpretation of the particular model that was used or test that was performed on the data of interest.

What's your favorite nonwork activity?

I've been trying over the last two years to get my private pilot's license. It's been a slow go, but I'm almost there. I also like to scuba dive, but I prefer very warm oceans rather than very cold lakes.