Q: What are the major educational changes that have occurred at Einstein during recent decades?

A: First of all, let’s understand that most educational change is in response to events and the generation of ideas occurring outside the walls of the medical school. Our medical school was founded near the beginning of the molecular biology “revolution”; our faculty was swift and enthusiastic in its incorporation of new scientific information into the pre-clerkship curriculum. But since hardly any lecture or lab was ever deleted, by the 1960s that curriculum became bloated and compressed to a point that severely strained students’ learning capacity. Meanwhile, we began viewing patients not just as biological individuals, but also as persons who think and feel and have distinct cultural and social backgrounds. Thus, the biopsychosocial model of medical practice assumed more prominence in medical education. We realized that we needed to incorporate more behavioral and social sciences into a curriculum already too crowded and compressed.

I think Einstein did a better job than most schools in stressing the importance of a patient being more than just a collection of cells and molecules that went awry — more than just a body harboring a disease. We started in 1970 with a course called Human Behavior and a pioneering program known as (continued on page 2)
Interview with Albert Kuperman, Ph.D.

(continued from page 1)

Family Life that put students into real-life situations from practically the first week of medical school. Through many modifications over the years, Human Behavior was transformed into a broad-based Introduction to Clinical Medicine curriculum, incorporating many topics and disciplines under the umbrella of behavioral science, the sociocultural and economic determinants of health and illness, and communication skills. And as for the program in Family Life, that grew into about a dozen different clinical programs offered through the ICM course.

The 1960s and 70s were also decades in which we recognized the importance of viewing patients in the context not only of family, but also of their communities and workplaces. We started thinking more seriously about the importance of the population sciences in medical education. We needed to address risk factors and the role of prevention. The discipline of epidemiology penetrated the curriculum. We needed to figure out how to link public health with conventional medicine in our students’ education. Although accomplishing this through the formal curriculum was and still is very challenging, it’s interesting to see how excited students become about the role of public health and preventive medicine during their experiences in very poor communities in less-developed nations or right here in the Bronx through their work in the Einstein Community Health Outreach (ECHO). One cannot overestimate the enormous educational value of immersion in service.

Beginning in the 1980s, faculties at many medical schools responded to an external change that had nothing whatever to do with the explosion of knowledge in the biomedical sciences. It had to do with our understanding of the way people work, learn, and teach. Medical educators finally started to consider how adults learn — how they acquire knowledge and how they apply that knowledge to problems. We also began to view the role of instructors in facilitating students’ ability to apply fundamental knowledge to solving clinical problems instead of merely transmitting facts and information to passive recipients. In other words, we were now in a period of responding to advances in cognitive science.
“We needed to figure out how to link public health with conventional medicine in our students’ education. Although accomplishing this through the formal curriculum was and still is very challenging, it’s interesting to see how excited students become about the role of public health and preventive medicine during their experiences in very poor communities in less-developed nations or right here in the Bronx through their work in the Einstein Community Health Outreach (ECHO). One cannot overestimate the enormous educational value of immersion in service.”

Q: How did you manage to convince faculty to change their approach from a passive to a more active style of teaching?

A: It required time and patience. In some schools the dean told the faculty that a case-based or problem-based curriculum was going to be implemented, and that if they didn’t like it, they could leave. It never occurred to me to present it this way at Einstein. Instead, I found a few like-minded colleagues, sent them to the same conferences and workshops that I was invited to, and made sure they were exposed to the same ideas with the hope that they would be the ones who paved the way to the new teaching methods.

Q: How did you know which members of the faculty might be more open to these changes?

A: I chose persons who were already in positions to effect change, people who were heads of key education committees and teaching programs. I found key basic science course leaders and clerkship directors because my original vision was to implement this new teaching strategy throughout the curriculum, not just the first two years.

It was very satisfying to see instructors catch on to new teaching methods so quickly. Because we were a relatively new school and members of the faculty were accustomed to debating new ideas in education, we at Einstein might have been more open to change in educational process. From the very beginning of this medical college, there were lots of experiments with nontraditional curricula and modes of teaching.

But there had been nothing quite so radical as this. We intended to replace lectures and most of the passive, didactic kind of laboratory experiences with case-based conferences. These conferences would emphasize correlations between basic and clinical sciences and the application of basic biomedical science to clinical problems. They would also put the responsibility to prepare squarely upon the students in accordance with the concept that the best kind of learning is the learning you do for yourself in order to solve problems. This, of course, is a long-established educational principle in the clinical years.

Q: As is typical of many things at Einstein, there are many models here for leading small groups. Are you comfortable with that?

A: I think that’s the correct approach. As case-based learning spread throughout the curriculum, some instructors suggested that we standardize it and structure every conference the same way. I didn’t think so. Cognitive science isn’t good enough yet for us to know exactly how the case-based, small-group conference should be done. I thought it would be good to let many ideas blossom, and I think they have.

Q: Students tell us that case conferences teach them how to think about a problem, and how to go to the literature to find the answers. On the other hand, students are demanding more material in the syllabi and more certainty about the “facts” we present to them. How do we reconcile these two trends?

(continued on page 6)
Above, from left:
Christina M. Coyle, M.D.,
assistant dean for faculty
development, welcomes
participants, at right, to
Davidoff Education Day 2009.

At left, Patricia A. Carney, Ph.D.,
of Oregon Health Sciences University,
featured speaker.

Below, Erika Banks, M.D.,
co-chair, Education & Faculty
Support Committee.
Clockwise, from above:
Claudene J. George, M.D., explains her poster project to colleagues; Sherry A. Downie, Ph.D., co-chair of the Education & Faculty Support Committee, and poster session chair; Mamta Reddy, M.D., of Bronx-Lebanon Hospital Center, with her poster.

Allen M. Spiegel, M.D., the Marilyn and Stanley M. Katz Dean, presents Faculty Mentoring Awards to Julia H. Arnsten, M.D., with Victor L. Schuster, M.D., chair, Department of Medicine, and to Donald S. Faber, Ph.D., with mentee Kamran Khodakhah, Ph.D.
A: Something is going on at the level of preparation for medical school that is making students more structured in their approach to learning, more dependent on facts as presented in the classroom, on a PowerPoint slide, on the screen of a computer, or in a syllabus. Students are now driven toward certainty. Many even want all the case conferences to end the same way so they know exactly what they have to learn!

Students need to go through a process of education, too. And we’re giving them a very short period of time to accommodate to a new approach to learning. I’ve had the luxury of having more than 50 years to think about it, and I’m still not sure how to do it right! We have to think about how to get the students to buy into our educational plan. Maybe there is no easy way; maybe they just have to go through the process.

Q: I’ve observed that members of the faculty, particularly junior faculty, also have that anxiety about what they are supposed to know and teach. What have you observed about this?

A: We have an extraordinary group of course leaders, and each one has tried to get across to his or her faculty that we just don’t have time for everything. So instead of another lecture on a particular topic, it may have to be integrated into a case conference.

Yet even with fewer lectures and more case conferences, instructors have adapted by putting more material into course syllabi. If we don’t give instructors the lecture time to provide what they consider information that students must learn, they can simply pack it into the syllabi. PowerPoint images have become the primary medium for presenting a vast amount of factual information — in lecture, in the syllabus, and in course Web sites.

We don’t always respond appropriately to the continuing expansion of biomedical science knowledge. Medical school courses usually come down heavily on the side of information. Between the PowerPoint phenomenon and the re-expansion of the syllabus, we’re still pouring on the information. And we are driving students to acquire all this information in order to pass their exams. Is this what medical education should be now and into the future?

“*I think Einstein did a better job than most schools in stressing the importance of a patient being more than just a collection of cells and molecules that went awry — more than just a body harboring a disease.*”

Q: Are there other strategies you have used to implement educational change?

A: The process of change itself gives rise to a culture in which individuals who are already smart, creative, and interested in teaching will think of new ways of doing things. After the initial identification of a few good people and the establishment of a few good courses in which the new process of education took place, more interdisciplinary courses came into being. The era of the “mega-course” began. Now virtually every pre-clerkship course at Einstein reflects a change both in the process of teaching and in course structure. One very creative course leader has even tried to link the topics in ICM and ethics with disciplines in molecular and cell biology. Now that’s integration! And now we are trying to achieve similar linkages in the clerkship year, where it’s a little harder.

Q: What about changes in clinical education?

A: Actually, much of what we consider to be clinical education occurs during the pre-clerkship curriculum, in the basic science courses and especially in ICM. But during the last two years of the curriculum, clerkship directors assume a prominent role and are responsible for ensuring program quality. In monthly meetings of the Clinical Committee of the Division of Education, clerkship leaders exchange ideas and discuss new concepts and teaching strategies. In recent years, much of the committee’s discussion has centered on methods of assessment of clinical skills and knowledge, especially through the use of standardized patients. More obvious changes in the clinical curriculum during the past decade or two are the addition of clerkships in geriatrics, family medicine, neurology, and radiology, as well as a longitudinal small-group discussion program known as Patients, Doctors, and Communities (PDC).

Q: What challenges do you foresee in perpetuating a climate of educational change at Einstein?

A: Most cases used in our conferences do not encourage students to go much beyond the diagnosis and treatment of disease rather than dealing with a
patient's illness holistically and with issues of prevention and ethics. We are missing an opportunity to enable students to see the big picture during an early phase of their medical education. There is still far too much information being taught, and still more emphasis on how to acquire information, much of it factual, than on how to use it to solve problems. We need to think about how to use information technology and other instructional methods not just to make information acquisition more efficient and convenient, but also to develop and sharpen our students' critical thinking skills. So there's a lot to be done. There always is. And it is a challenge to stimulate faculty to change their educational tactics when so much of their time and energy must be devoted to research or patient-care responsibilities.

In creating a climate of change, we need to keep supporting our course and clerkship leaders and other faculty responsible for major teaching programs. This means sending them to conferences on teaching and learning in the various disciplines and greatly enhancing our own faculty development programs. I still see excitement out there, especially at the beginning of each academic year, about how to do something different, how to incorporate some new topic or discipline into the curriculum, how to teach it in a new and more effective way.

Another way to encourage this climate of change is to expose faculty to new themes that need to be incorporated into the curriculum. Surely, it is difficult to fit in everything. But you need to put certain themes in bold-face fonts — palliative care, nutrition, functional genomics, geriatrics, women's health, ethics, prevention, global health, health policy and economics, integrative medicine — and one of my jobs has been to do that.

**Q:** How do the students fit into this climate of change?

**A:** It goes beyond curriculum. I want students to have opportunities to develop a broader vision of medicine than what they obtain in the formal curriculum. This includes opportunities for research, for community-based service, for exploring global health issues and health policy and public health.

My goal has been to help create an educational environment in which students see medicine as a mosaic — very colorful, very rich, very complex — encompassing many different activities and knowledge domains: from the biological sciences to the humanities and social sciences, from the individual to the population, from conventional medicine to traditional practices, from the science of medicine to the art of medicine. Our formal curriculum does not lend itself well to that. Students pass from course to course and clerkship to clerkship, and these seem discrete and separated. When do students ever comprehend medicine in all its breadth, richness, and complexity?

While educating future physicians who will practice the most competent and compassionate medicine possible, we also have a responsibility to create future leaders, students who want to change things — not just within a discipline but the way health care in general is practiced and distributed and paid for. We want our graduates to be catalysts for social change, dealing with problems and issues such as health disparities; the public health impact of climate change; how we care for the frail elderly, physically disabled, and chronically ill; and access to affordable health care for poor, underserved, and marginalized populations in local communities, in communities across the nation, and in nations beyond our borders. To achieve this goal, we need to develop a parallel or co-curriculum that encourages students to look beyond their courses, classrooms, and clerkship sites and acquire experiences that enable them to expand their knowledge of medicine in the broadest way possible, with open minds and open hearts.

"My goal has been to help create an educational environment in which students see medicine as a mosaic — very colorful, very rich, very complex — encompassing many different activities and knowledge domains: from the biological sciences to the humanities and social sciences, from the individual to the population, from conventional medicine to traditional practices, from the science of medicine to the art of medicine."
New from the D. Samuel Gottesman Library: Desktop Sharing for Distance Learning

Got 15 minutes? The D. Samuel Gottesman Library has a new service to meet your information needs on- or off-campus. Training is now available in abridged format for PubMed, Web of Science, Ovid MEDLINE, PsycINFO, EndNote, and RefWorks. Librarians use desktop sharing and Web conferencing technology to conduct the webinars. You can be in your lab, office, or home. No downloading of software or reconfiguring of your computer is involved. One or more people at different locations can electronically “attend” a particular session.

These 15-minute webinars do not replace full-length classes on our regular schedule. Instead, they are an overview of functions and features of databases or bibliographic management programs. Response to this new service has been resoundingly positive. Here are some user comments: “This session was helpful,” “It is a good use of spare time,” and “Would sign up again.”

Librarians also use the technology for impromptu one-on-one consultations on database searching, bibliographic formatting, and other information as well as customized training to meet the specialized information needs of a group. Time and duration of the sessions are at your convenience.

Because users don’t have to leave their sites for this short session, this service is a popular and important enhancement to our training calendar: http://library.aecom.yu.edu/education/classes.htm. E-mail announcements of scheduled webinars are broadcast monthly. To sign up or schedule customized training, contact askref@aecom.yu.edu or 718.430.3104.

Racheline G. Habousha, M.S.L.S.