

*In this month's letter, Dr. Rick Valachovic, Executive Director of the American Dental Education Association, explains how ADEA's latest contribution to the dental education community, the ADEA Curriculum Resource Center, addresses the need to integrate new scientific knowledge in curricula as it becomes available.*



As scientific knowledge and clinical treatments evolve, we need new tools for integrating them into our curricula.

## A Web-based Solution to Tomorrow's Curriculum Needs

In 2006, the [ADEA Commission on Change and Innovation in Dental Education](#) (ADEA CCI) delineated [eight principles](#) that provide an essential framework for the dental education environment of the future. One of these, scientific discovery and integration of knowledge, poses significant challenges for the individual educator. The rate of scientific and technological change has become so rapid that it is difficult for even the most conscientious faculty member to keep pace, let alone to incorporate new science in curricula.

Nevertheless, this knowledge integration is a necessary step on the way toward educating our students to provide evidence-based care. There is no doubt that scientific advances, particularly in genetics and molecular biology, will lead to the emergence of new ways of caring for patients. The critical issue becomes how to keep up with the latest scientific discoveries and integrate that new knowledge in our curricula.

Over the years, I have had many conversations with ADEA members—faculty, students, and corporate partners alike—about tools to address the most pressing curriculum needs. The recently launched [ADEA Curriculum Resource Center](#) (ADEA CRC) comes in direct response to these many requests for convenient and comprehensive educational resources that augment current curricula with timely research.

What precisely is ADEA CRC? This new state-of-the-art Web portal is designed to give faculty access to the latest dental educational resources related to critical topics in predoctoral, postdoctoral, and allied dental education. Access is free and only for ADEA members; the site is currently open to members who are not students, and there are no restrictions on the use of materials for teaching and learning.

The recently developed curriculum module posted on the site comprises an almost exhaustive exploration of dental plaque biofilm. In addition to a curriculum guide that may be used in the development of course syllabi and content, the module contains high-quality illustrations that can be used in PowerPoint presentations, student handouts, a variety of patient case studies, and a comprehensive reference library. In the future, course assignments will be added through a student portal that is under development. This will allow faculty to interact with students directly through the site.

This represents a major advance over the CD-ROMs and booklets that ADEA previously used to deliver course content to its members. To create this more flexible, scalable, and interactive delivery mechanism, ADEA entered into a strategic partnership with Dental Learning Systems (DLS), a dental education specialty group and a major provider of dental continuing education. For DLS, the creation of a Web-based portal for this current generation of ADEA educational resources was a no-brainer.

"The ADEA CRC approach is self-evident when you look at how schools are delivering education and what students are demanding," Dan Perkins, CEO of DLS and AEGIS Communications, told me. "The delivery of education is changing, the way students want to learn is changing, and faculty needs and shortages are creating significant challenges. The ADEA CRC is an innovative and direct response to these trends."

One of the nifty features incorporated in the site is a clipboard that allows faculty to gather material over time and then bring it all together to create a curriculum and

build original assignments. With the future launch of the student portal, faculty will be able to email students assignments and assessments, which the system will track and even grade. Best of all, the system will alert educators when a significant portion of their students miss a particular question so that new lessons may be devised to reinforce knowledge in poorly understood content areas.

If dental plaque biofilm is not a subject you currently teach, you'll be pleased to learn that additional modules are currently under development. The topics will include dental caries, dental erosion/tooth wear, dentin hypersensitivity, inflammation and gingivitis, and the oral-systemic connection. The initial six modules are being sponsored by three of ADEA's longstanding corporate partners: the Colgate-Palmolive Company, GlaxoSmithKline Consumer Healthcare, and The Procter & Gamble Company. All course content is selected, reviewed, verified, and approved by [a group of academic advisors](#) who provide their time and expertise for the benefit of fellow ADEA members.

Even a quick visit to the website reveals the ample breadth and depth of the biofilm resources that ADEA CRC has assembled. Nevertheless, we know they do not represent the last word on biofilm. Over time, the module can be updated as the scientific knowledge and clinical treatments related to biofilm evolve. That is the brilliance of ADEA CRC's Web-based approach: it addresses today's curriculum needs and stands ready to address tomorrow's. We hope to have dozens of equally rich high-quality resource modules posted on the site by the end of this decade.

As we celebrated the launch of ADEA CRC last month, I discussed its promise with Dr. Ronald Rupp, ADEA's Senior Director of External Relations and Institutional Advancement. "There was a lot of information and research available on biofilm, but it was scattered," he reminded me. "ADEA's aim was to bring it all together in a way that was accessible, comprehensive, and easy for predoctoral, postdoctoral, and allied dental faculty to use."

Future modules will do the same, and their arrival may come none too soon. As Ron pointed out, "ADEA CRC brings to the surface the real challenge. How are we going to educate all the new students effectively?"

There are currently more than 300 faculty vacancies on dental school campuses, and with new dental schools opening every year, that number is likely to grow. This creates pressures on faculty to carry heavier loads, especially on campuses with many vacancies. While online resources such as ADEA CRC (and also [MedEdPORTAL](#)) cannot solve that daunting problem, they should make a meaningful contribution to relieving some of the pressures faculty feel today while simultaneously helping us meet the curriculum needs of tomorrow.



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