

Sharon Willis

Deputy Vice President for External Affairs and Managing Editor

Ken Frager

Public Affairs Specialist

Staff Sgt. Matthew Rosine

Production Editor

MC1 Chad Hallford

Writer

Christine Creenan-Jones

Contributing Writer

Lori Fields

Layout and Design

Production

Editorial content is edited, prepared and provided by the USU Office of External Affairs unless otherwise indicated. The Pulse staff may include or exclude articles based upon news value, impact on the university and space availability.

Submissions

The Pulse will be published bi-weekly on Mondays. The deadline for submissions is at 4 p.m. Tuesday prior to the publication date. Submissions can be sent to usnewsletter@usuhs.mil or by calling 301-295-0895.



Cover Photo by Ken Frager

On the cover

Mr. David Green, (pictured left) chief, Industrial Hygiene and Environmental Division, distributed free tree seedlings to USU personnel in honor of Earth Day 2011. (See story page 5)



From Opponent to Proponent: A Look at Curriculum Reform at UCLA

by Roberta A. McIntyre, Program Specialist, Office of Curriculum Reform

They say ‘change is hard’—but being able to discern the benefits that await the end of the process can make it easier to bear. It was tough for those involved with the UCLA School of Medicine’s curriculum reform project, but in the end - and given the perspective of hindsight - it wasn’t that bad and the results have been more than worth it, according to Jeffery F. Miller, Ph.D., chair of the UCLA Microbiology, Immunology & Molecular Genetics Department.

USU faculty and staff were presented with an inside look at curriculum reform at the UCLA School of Medicine when Dr. Miller spoke at USU in April. Dr. Miller admitted he was not a fan of curriculum reform at the outset, but when the process was finished, he had definitely come on-board.

When asked what changed his mind, Dr. Miller replied, “Doing it. It was an opportunity to interact with really great colleagues, especially those who knew more about putting molecular mechanisms into a program students would enjoy learning.” He also noted that Problem Based Learning (PBL) could be used to make learning motivating and fun, and this made a greater impact than any pedagogic argument offered by their educationally trained Ph.D.s. And how long did that take? “I saw this after the implementation,” said Dr. Miller.

Reform at UCLA was spurred by the arrival of a new dean of medical education, who patterned the effort after the reform she had just been through at Harvard, setting up a task force to review best practices and develop guiding principles. Although curricular reform at UCLA was seven years in the making, Dr. Miller noted it really didn’t need to take that long. Their process was started by a small group and included an extended discussion phase that lasted for four years, before being put into place one year at a time. Since so many medical schools have now transformed their curricula, Dr. Miller felt that



Photo by Thomas Balfour

Jeffery F. Miller, Ph.D.

USU should be able to learn from their experiences, thereby cutting down the time needed for implementation.

At UCLA, as at many medical schools, one advantage of the traditional, 2+2 (2 years of pre-clerkship training + 2 years of clinical training) program was that individual departments had control over specific courses, with full accountability for the same. As Dr. Miller pointed out, “there were many lectures and many lecturers, and things ran like a well-oiled machine.” The downside, however, was the lack of integration; for instance bacterial structure (Microbiology and Immunology) was taught in early September, while antibiotics (Pharmacology) came in November. There was also little communication between departments. This created a passive learning environment, with low student involvement.

The first two years of the new UCLA model is known as the Human Biology and Disease Curriculum. The guiding principles of their curriculum are:

- Integration of basic, clinical and social sciences is essential to clinical practice and research.

Continued on page 6

Packard lecturer highlights implications for improved blood use

by Ken Frager



Photo by Thomas Balfour

Dr. Gary Wind, professor of Surgery and president of the USU Faculty Senate (left), and USU president Dr. Charles L. Rice, present Dr. Lena Napolitano with the commemorative Packard Lecture award.

The Faculty Senate and USU President Dr. Charles L. Rice sponsored Dr. Lena Napolitano, a distinguished trauma/critical care surgeon, as the 26th annual David Packard Lecturer, recently. Dr. Napolitano is professor of Surgery and chief of the Division of Acute Care Surgery at the University of Michigan.

Dr. Napolitano's cutting edge research related to blood and blood product transfusion may have direct implications to improve the quality of blood used and ultimately improve outcomes following trauma and acute care surgery.

Dr. Napolitano spent an additional day at NNMC, where she presented Advanced Management of ARDS, followed by trauma/critical care rounds and visits with wounded warriors and the ICU. She also visited the Andrews Air Force Base flight line to witness patient transport innovations.

This joint Packard activity was a first, yet important, step in the integration of USU into the envisioned world class academic medical center on the Bethesda base.

The Packard lecture was recorded and will be made available on the USU Web site.

Juliano honored...

Continued from page 3

In addition, distinct signaling elements appear to initiate movement out of the ventricular zone, but do not play a role in allowing further movement toward the cortical plate.

Dr. Juliano was nominated by Harvey B. Pollard, M.D., Ph.D., professor and chair, Department of Anatomy, Physiology and Genetics. "The paper, which is extensively

discussed here, is emblematic of a revolution in neurobiology, in which repair processes in damaged brain appear to recapitulate a developmental process based on a very simple, yet fundamental structural principal in brain development," said Dr. Pollard. "If a symposium were to be organized by Dr. Juliano, it would attract a large and very appreciative audience with individual interests in the neurobiology revolution."

Curriculum reform...

Continued from page 2

- Application of knowledge requires both mastery of facts and deep understanding.
- Learning for a lifetime is central to professional practice and research.

Much like the new USU schedule, the UCLA plan replaced separate basic science courses with multidisciplinary "blocks," organized around scientific themes and organ systems. It also replaced the traditional approach of teaching predominantly normal anatomy and physiology in the first year of medical school and abnormal structure and function in the second year. This more blended approach, where normal and abnormal pathology are presented early, can be used to stimulate a more comprehensive understanding of both basic and clinical science.

UCLA's pre-clerkship schedule is similar to the one being developed at USU in that it includes plans for a total of 24-28 formal contact hours per week.

Like USU, the UCLA program also includes a greater emphasis on small groups versus large lectures, and encourages the use of independent study and self-directed learning. Content area "threads" running through the blocks represent yet another similarity between the two programs.

Dr. Miller believes one of the most positive outcomes of the updated curriculum at UCLA is the opportunity for faculty to actively engage in interdisciplinary teaching. Not only has this been rewarding, but faculty members have found PPBL to be an effective tool for facilitating active and interactive learning.

Internal satisfaction polls also have shown students like the increased integration and class attendance has gone up.

It was noted, however, that developing and implementing PBLs is labor-intensive, and some of the best teachers are actually those who are both M.D.-Ph.D.s.

Knowing how to measure success is also a challenge. When asked "How do you measure success?" Dr. Miller replied, "It's down the road..."