

## **Illinois Faculty Are Leaders in Taking a Scholarly Approach to Veterinary Education**

By Dean Herb Whiteley

On May 15, our College proudly awarded diplomas to the 103 members of the Class of 2005. As these new graduates fan out across the country to pursue internships, further study, and positions at practices, I reflect on the remarkable work of our faculty. Over the past four years, they have transmitted the skills and knowledge needed by competent entry-level practitioners to this new generation of veterinarians.

To ensure that our graduates have the necessary competence, Illinois faculty have become world leaders in scholarship on the effectiveness of veterinary clinical education. Nearly 20 years ago Dr. Ann Johnson, professor of small animal surgery, partnered with a faculty member from the College of Education, James Farmer, to investigate which teaching methods were most effective for teaching surgery skills. Her goals were to improve veterinary surgical education, to minimize the use of live animals, and to focus on training.

“At Illinois, the shift away from multiple live surgeries was a gradual, faculty-driven process begun long before there was student pressure to change,” notes Dr. Johnson.

Her findings resulted in adjustments in the surgery curriculum, which in turn led to more studies to evaluate teaching approaches and document the skills that new graduates need to know.

Other Illinois small animal surgery faculty members joined Dr. Johnson in this work. Dr. Cathy Greenfield led the effort to develop soft tissue models for use in surgery laboratories and to evaluate the surgical performance of students trained using models vs. live animal laboratories. Subsequent studies assessed outcomes, from the perspective of both the new graduates and their employers. The findings documented that use of models was an effective teaching approach, and the curriculum evolved accordingly.

“There were no ‘regular’ and ‘alternative’ surgical education programs at Illinois as there were at other U.S. veterinary schools,” says Dr. Greenfield, “We *were* the alternative program.”

More recently, Drs. Greenfield and Johnson have conducted large-scale surveys of veterinary employers to identify the “need to know” entry-level skills in small animal practice.

“We seek practitioners’ input,” affirms Dr. Johnson. “We believe they are our customers and they know their needs. As faculty members, we determine the lecture content and methods of instruction.”

Today Illinois’s small animal surgical teaching program culminates in the spay procedure performed on dogs and cats from local humane societies. This hands-on survival laboratory encompasses all the surgical techniques that need to be taught as well as the pre-operative evaluation and post-operative care components.

“It’s a problem solved,” says Dr. Johnson. “This is a program we can be proud of. We’ve worked very hard to produce a student who meets practitioners’ expectations.”

On the food animal side, Drs. Dawn Morin and Peter Constable adapted the survey approach used by Drs. Greenfield and Johnson to assess the food animal-related skills and knowledge needed by entry-level practitioners.

The research question arose in response to a general perception that individual medical procedures were less relevant in the veterinary curriculum given the rise of more specialized production medicine approaches. The results of their survey, which incorporated the responses of more than 1,000 large animal veterinarians in the United States, revealed a demand for a balance between individual medical skills and population-based skills.

“You have to be able to diagnose the individual in order to understand the whole population,” explains Dr. Morin. “At the same time you need to view the health of the individual within the context of herd health.”

On the basis of their survey findings, the food animal core curriculum has been revamped over the past 3 years to include Swine Health and Production and the two-semester course

Ruminant Health and Production, which features case-based discussion sections and laboratories conducted at dairy and beef farms. Live-animal surgery laboratories have been eliminated, as have a few lecture topics; the castration lecture was expanded. A new large animal surgery elective includes live-animal surgeries.

Additional large animal experience, such as restraint and physical examination, blood draws, and passing tubes, has been incorporated into the freshman clinical orientation course.

Drs. Morin and Constable point out that Illinois practitioners had a tremendous response rate—67 percent—to their survey, and so they send a big thank-you to you for your contributions.

I too wish to thank members of the ISVMA for their invaluable involvement in the educational mission of the College, through mentoring, participating in applicant interviews, lecturing to clubs and classes, funding scholarships, and so many other activities.

And I salute our clinical faculty leaders who have sought practitioner input to guide improvements in the curriculum. The impact of their scholarship can be seen at veterinary schools around the world and in the new graduates who have mastered the skills they need to know.

Please feel free to share your comments with me at [dean@cvm.uiuc.edu](mailto:dean@cvm.uiuc.edu).