

ILLINOIS MEDICINE

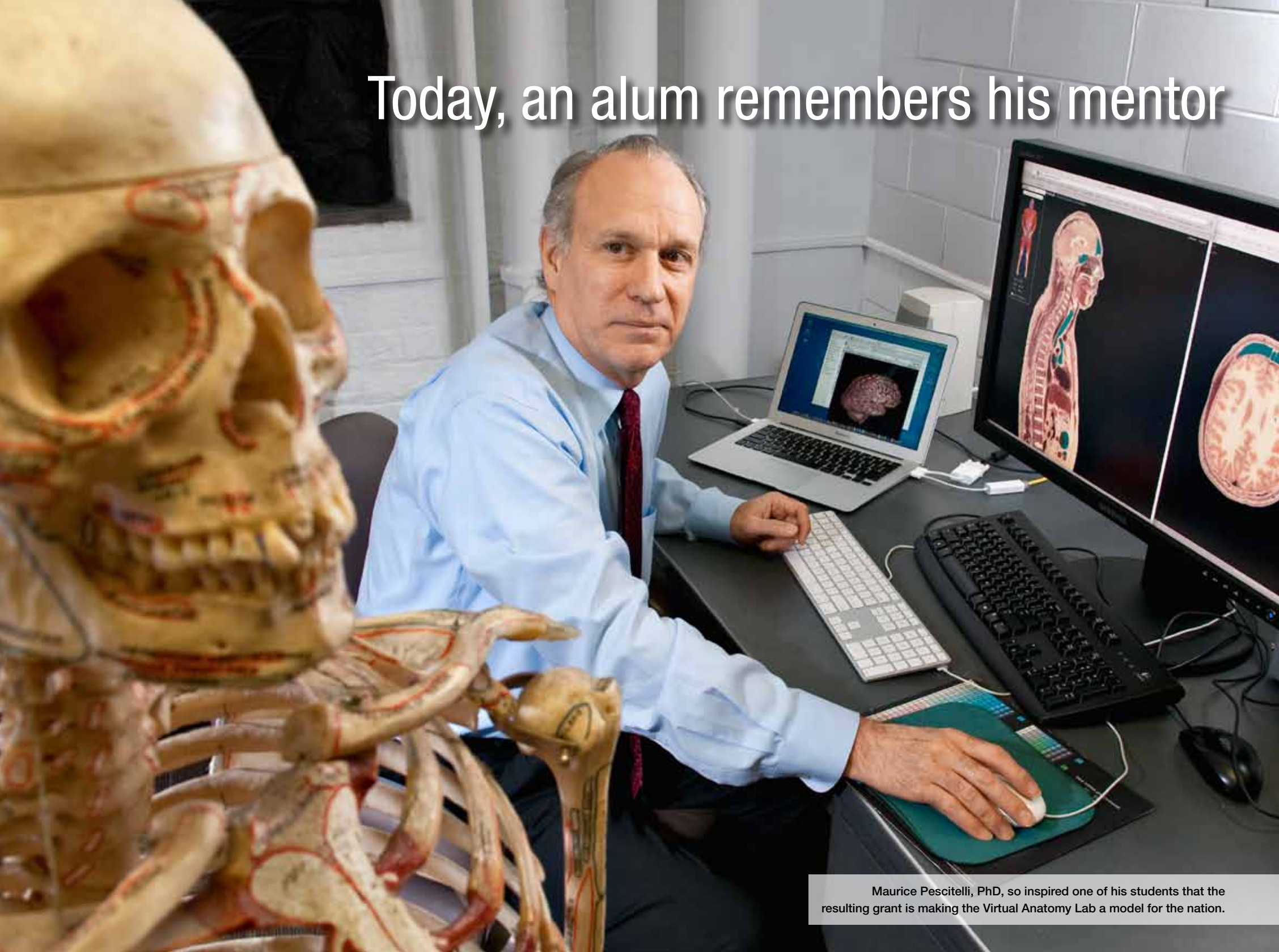
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Celebrating Today Creating Tomorrow



Today, an alum remembers his mentor



Maurice Pescitelli, PhD, so inspired one of his students that the resulting grant is making the Virtual Anatomy Lab a model for the nation.

Tomorrow, our anatomy lab undergoes a quiet revolution

Mike Doyle's virtual-reality breakthroughs bring students a visual learning aid like no other

IMAX films give moviegoers a vivid experience that lasts an hour or two. But Mike Doyle's virtual-reality gift to anatomy students has the potential to impact entire generations of patients.

And it all began with a course Doyle took a couple decades ago while he was a graduate student at the University of Illinois in Urbana, a class taught by assistant professor Maurice Pescitelli, PhD.

"Dr. Pescitelli was my embryology professor during my first semester of graduate school," says Doyle, '83, PhD '91. "We wrote our first grant together before that semester was over, working on a program to help teach embryology using computers."

In the mid-1990s, Doyle collaborated with Pescitelli and Harvard embryologist Betsy Williams to create a large knowledge base of embryology information that could be explored online and with which users could interact in a detailed way. That project eventually inspired the later development of the Web-based Eolas Virtual Anatomy Lab, which provides medical and allied health students a new, more visual way to learn anatomy. This online navigator allows users to click on a part of the body to see it in more detail and to learn about its structure.

But it wasn't until Doyle gave the university a four-year, \$500,000 grant through his family's Buonacorsi Foundation that AnatLab, in its current

form, took shape. "With Mike's grant, we were able to build upon the technology developed at Eolas and make many enhancements to the information," says Pescitelli, UIC instructor of medical gross anatomy. Over the last four years, the grant allowed Pescitelli to hire medical students as research assistants who painstakingly outlined countless detailed anatomical structures.

"With AnatLab, students can now view finely detailed anatomy in an MRI or CT point of view, similar to how they will view it during their professional careers," says Pescitelli.

Doyle's career as an inventor of next-generation Web technology and 3-D biomedical visualization was launched as a result of research projects started at the University of Illinois. "In one of my first assignments in graduate school, I realized I needed to learn how to program," says Doyle. "I got into programming as a hobby and then that hobby took over my life."

Doyle served as a faculty member at UIC from 1989 to 1993 before becoming the director of the Center for Knowledge Management at the University of California, San Francisco. There, he led a research team that developed patented technology which for the first time, enabled embedded interactive programs to run in Web pages.

Doyle founded Eolas Technologies, Inc. in 1994, and as CEO of Iomas Research, a subsidiary of Eolas, he is the architect of the company's research and development efforts.

Doyle's newest goal is the 2015 opening of the National Museum of Health and Medicine in Chicago, a center for public education that will both feature virtual exhibits and provide a resource to the academic community and researchers worldwide.

As a result of Doyle's gift, Pescitelli and a small team of medical students have also taken the Virtual Anatomy Lab a step further. "We can now use data from AnatLab to reconstruct any anatomical structure virtually in 3-D, making it easier to visualize," he says. "These Quicktime VR [Virtual Reality] movies are a depiction of a dissection that can be manipulated and viewed from different angles."

Other planned enhancements to the AnatLab include providing links to histology and automating the creation of the QuickTime VR movies on demand.

"UIC has always been a leader in crossing borders between various disciplines that are synergistic, such as information technology and biomedical sciences," says Doyle. "I can't think of a better place to support this kind of work."

“ UIC has always been a leader in crossing borders between various disciplines that are synergistic, such as information technology and biomedical sciences. ”

—Mike Doyle (pictured above)



Thank You

for your continuous support of
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