



FACULTY PROFILE: LINDA A. JOHNSON, PH.D.

## Anatomy professor's passion for teaching lays a foundation for medical knowledge.



**IT'S A PROFOUND RITE OF PASSAGE INTO THE MEDICAL PROFESSION. EVERY JULY, MORE THAN 220 NEW MEDICAL STUDENTS WALK THROUGH THE DOORS OF THE UNIVERSITY'S GROSS ANATOMY LABORATORIES TO MEET THEIR VERY FIRST PATIENTS.**

Not one of these patients will have a chart or a diagnosis. Even their identities will be unknown. Yet, over the course of the Medical Gross Anatomy and Embryology class, each will give up the deepest secrets of their bodies so that others may one day be healed.

Guiding students through this challenging eight-month curriculum in human anatomy is Linda Johnson, Ph.D., an award-winning professor of cellular and structural biology in the Graduate School of Biomedical Sciences, who has taught at The UT Health Science Center at San Antonio since 1978. Johnson's warm and dynamic personality, coupled with her consummate knowledge

of anatomy and dissection, places students at ease and sets them up for success.

"The student's whole life has been about academic book learning. When they come to the gross lab, it's the first time that they really have to come to terms with the humanitarian aspects of medicine. It's science, and yet it's somebody who had a life, who has loved ones," she says.

For some students, the course is grueling; for others, it's love at first dissection. Johnson sets herself the goal of remembering what it was like to be that new student, full of apprehension and excitement, but lacking in skills and knowledge.

"There's a learning curve, and I really enjoy working with them that first year," Johnson says. "To me, if they're here, they can do it."

Located on the first floor of the dental school, the anatomy labs are actually a collection of rooms where both beginning and advanced students study.

"So much of medicine is bringing together skills of people and getting along with diverse personalities and working together for the common good of the patient," she notes.

Johnson also teaches the neuroscience module and presides over an advanced anatomy class for fourth-year medical students. These students are the senior teaching assistants in the freshman-level course.

The combination of seniors and freshmen in the classroom is a win-win situation, according to Johnson. "Our seniors learn to teach and learn in-depth the anatomy that's going to underlie their specialty; but on the other side is the freshman who gets exposed to senior medical students. It's a mentoring deal."

Johnson is an expert on the subject of mentoring. Former and current students alike routinely describe her as someone whose guidance extends well past the classroom — and well past that watershed year.

Deaver and others note that Johnson's teaching style is "very conceptual" and even visual. "She's always three steps ahead of where you'll ever be," Deaver adds.

With Johnson's help, Melanie Sulistio, M.D. (Class of 2002), a cardiology fellow in the Department of Medicine, explored several specialties before deciding to pursue one that combined both, her interest in critical care and in patient care.

While still a medical student, Sulistio founded a candlelight vigil to honor the people who donated their bodies, as well as to help students cope with the emotional impact of human dissection. Since 1999, the vigil has been organized by second-year medical students for the benefit of first years.

Johnson was instrumental in the students' efforts to get the ceremony started.

"She made complicated things seem simple," says Robert Reinauer, a third-year student who plans to pursue a career in ophthalmology. "She also does extra lessons in gross anatomy, just reviewing whatever she's talked about the week before."

These "Desperation Review" sessions, held during the lunch hour as a supplement to the scheduled lecture and lab times, are examples of Johnson's steadfast commitment to the students, says Deborah Stedman, M.D. (Class of 2007), a radiology resident.

"During these sessions, she reinforces difficult concepts and gives different approaches to learning the material, allowing students to achieve a higher level of understanding and critical thinking."

Johnson is nonplused by her students' different learning styles. "There's going to be something in medical school that's going to bamboozle everybody," she

"It's really great that someone who's your mentor knows you better than you know yourself," says Sulistio.

The main classroom contains 57 dissection tanks, where groups of four students will work on one cadaver throughout the course.

Johnson considers getting along with your three "tankmates" to be an essential classroom component.

"I'm very glad I went to medical school here," says Pamela Deaver, a third-year student. "She's been such a great mentor to me ... I'm leaning toward radiology as a subspecialty because of my love of anatomy."



*Dr. Johnson encourages teamwork among her students (left to right) Adam Hines, E. Elizabeth Fernandez and Noelia Cabrera.*

says, noting, for example, that understanding the complex nervous system will take place at different times for different students.

"Some of them get it the first week I teach it, some get it a month into the course, and some people don't get it until after Christmas."

Johnson likens herself to a bus driver and her students, to passengers. "I'm driving along and I'm just picking up people along the way, and eventually, everybody's on board at the end!"

Graduating classes have honored her with the "Outstanding Faculty Award" no less than 20 times, and she was one of two faculty members selected to be graduation ceremony marshals every year since 2002 (and several years before that). She's the three-time recipient of the UT Health Science

Center at San Antonio Presidential Award in Teaching. Last year, both she and Robert Esterl, M.D. were selected as founding members of The University of Texas Academy of Health Science Education.

"You can tell she's dedicated to what she's doing, because she loves it," says Casey Cates, M.D. (Class of 2002), a Trauma Fellow at Carolinas Medical Center in Charlotte, N.C. Cates, who played football in high school with Johnson's son, was surprised to be recognized by Johnson on his first day in the gross anatomy lab.

In his work with residents and medical students, Cates tries to emulate what he learned as both a freshman and a senior anatomy student. "I try, but I'm not as good as she is," he says.

Johnson's work ethic has earned the respect and love of her

colleagues. "She treats everyone with the utmost respect and consideration and is always willing to resolve issues with as much compromise as possible. Yet she will never, never sacrifice at the expense of her students. Their learning and their well being are absolutely first and foremost to her," says Patricia Brewer, Ph.D., assistant dean for student affairs in The UT Health Science Center at San Antonio School of Allied Health Sciences.

"I love school," says Johnson. "And the best way to stay in school is to be a teacher."

The 2011 Class of the School of Medicine marks Johnson's 30th year to teach beginning anatomy. "I feel like I have 220 kids," Johnson says.

Make that times thirty.

By Lynn Gosnell