Ruth M. Kraeuchi's gift has created the nation's most comprehensive veterinary ophthalmology team.

The eyes have it

By Ernie Gutiérrez

The patient is young and high-strung, so the pre-operative preparations include sedatives to calm her down. The surgeon scrubs his arms and hands with bacteria-killing soap, and the rest of the surgical team — anesthesiologists and assistants — gathers around the patient. The glow from the operating room lights bathes the patient, and the ventilator that will breathe for her during the entire process pumps rhythmically and steadily. Sheets cover her completely, leaving only the area around the cataract-covered eye visible. After donning sterile gown and gloves, the surgeon peers into the operating microscope and begins the process that will restore vision to the colt's eye, a procedure that he has performed hundreds of times on horses, cats, dogs and other domestic and farm animals.

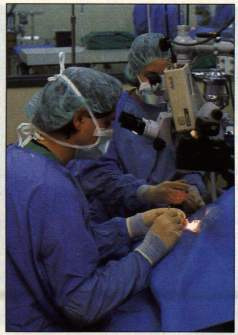
The life of a veterinary ophthalmology doctor might not be as hectic and glamorous as the portrayal of medical doctors in *ER* — the popular television show. But to Dr. Mark Nasisse, who holds the Ruth M. Kraeuchi endowed professorship in veterinary ophthalmology

— and plays a mean rock'n'roll guitar — life at MU can be extremely exciting.

"I have an incredibly diverse job description here. I can do everything from seeing patients, doing surgery, to doing research. What is unique about this position is that it is by design a research position. What also attracted me is the number of faculty positions and resources that we have committed to animal eye diseases here."

Because of the nature of veterinary medicine and the relative small level of funding available for animal disease, there are few veterinary ophthalmologists in academic institutions and, when you find them, those institutions have at the most two each, Nasisse says. The desire to be part of a group of scientists bent on conquering eye diseases in animals and applying some of the same techniques to human eye diseases is the reason he accepted the Kraeuchi professorship.

"I would not have taken the endowed professorship to come here to work by myself. I can do that anywhere. The goal here is to have a team and have a team approach to solving eye disease problems in a way that isn't possible otherwise," Nasisse says. The team includes Dr. Cecil Moore and Dr. Keith Collins, associate professors of veterinary medicine and surgery and ophthalmology. A fourth team member is being recruited.



Peering through an operating microscope, Dr. Mark Nasisse removes the cataract-clouded lens of his patient's eye, replacing it with a permanently implanted contact lens.
Robert Hood photo

The creation of the Kraeuchi endowed professorship will enable MU to have four research and clinical ophthalmologists on board. It will be the only place in the world where that many scientists will be committed to study animal eye diseases. It also is the first endowed professorship in veterinary ophthalmology in the nation.

"We can no longer afford to speak in terms of animal science and human science," Nasisse says. "There is medical science, period. It's so tightly related that the boundaries are very indistinct. I plan to work not only with the people at the veterinary college and basic sciences people, but also with people at the medical school and elsewhere."

Tony Stone Images/ James Balog

Having the funds the endowment provides is vital to the program, he says, but its goal is to be completely externally funded within three years, and for it to support several additional graduate students.

Nasisse's research for the past 11 years has focused on studies involving ophthalmic laser surgery and an infectious eye disease in cats caused by a virus.

"It's extremely similar to one found in humans, Herpes Simplex Type I, which is a common cold sore virus," says Nasisse. "But it's also an important cause of eye disease, especially corneal infections, and it does the same thing in cats."

Cats are usually exposed to the virus when they come in contact with other infected cats.

"If your pet is a house cat, you have nothing to worry about as long as they don't get out," Nasisse says. He adds that in crowded situations there is a greater potential for recurrent infections.

Most herpes viruses are species specific, that is, humans and cats cannot catch the disease from each other. "In fact, domestic and wild cats are the only known hosts of the feline herpes virus," Nasisse says.

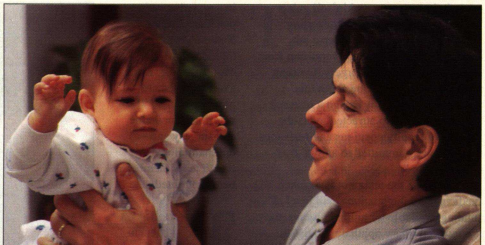
What attracted him to the veterinary profession?

"It's medical science with animal orientation, which is totally different than human medicine. The scientific and technological challenge in veterinary medicine is intriguing. Especially in the situation that I am in now, I can do an incredibly wide variety of things."

Nasisse says he is driven by challenges and opportunities to do new and exciting things. "I hope that five to 10 years from now I will have been successful enough at my research that I will need a new challenge."

And what about the patient he treated for cataracts?

"Most animals act surprised when they first wake up after cataract surgery, but then they go on like they had no previous problems with eyesight. By now that colt is probably enjoying the summer pasture," Nasisse says.



Nine-month-old Andria is the apple of her father's eye. Other members of the Nasisse household include his wife, Karen, a Labrador named Alex, and two cats, Vinny and Spike.
Nancy O'Connor photo

A new vision

The story goes that in the late '70s Dr. Harlan Jensen, professor emeritus of veterinary medicine and surgery, helped one particular kennel owner with her cocker spaniels that needed eye care. She would bring them to Columbia for cataract surgery or treatment of other eye diseases.

"Ruth devoted 40 years of her life to the care of dogs," says Joy Ebest — a friend of the late Ruth M. Kraeuchi, owner of a kennel in St. Louis County. "And anytime her dogs had any problems she couldn't work out herself, she would take them to Dr. Jensen."

From her need to get care for her animals, a friendship developed between the College of Veterinary Medicine and Mrs. Kraeuchi.

She died in 1988, and her will specified that $667,727 from her estate would go to the college. According to her wishes, half the gift provided unrestricted support for the college, and the other half provided funds for veterinary ophthalmology, the study of eye disease. The college decided to use the entire bequest to obtain matching funds to endow the Ruth M. Kraeuchi Professorship in Veterinary Ophthalmology.

Her gift, with matching funds from the University and the state of Missouri, funded the first endowed professorship at the college, and it is the first endowed professorship of veterinary ophthalmology in North America.

Mark P. Nasisse, DVM, holder of this professorship, heads a team to develop a sustained, extramurally funded research and clinical program investigating animals' eye diseases. They also will develop animal models of human eye diseases.

Kraeuchi owned and operated the Silver Maple Kennels. She was a judge for dog shows throughout the country, co-wrote *The New Cocker Spaniel* and wrote a book about dogs titled, *The New Book*.