

medicine

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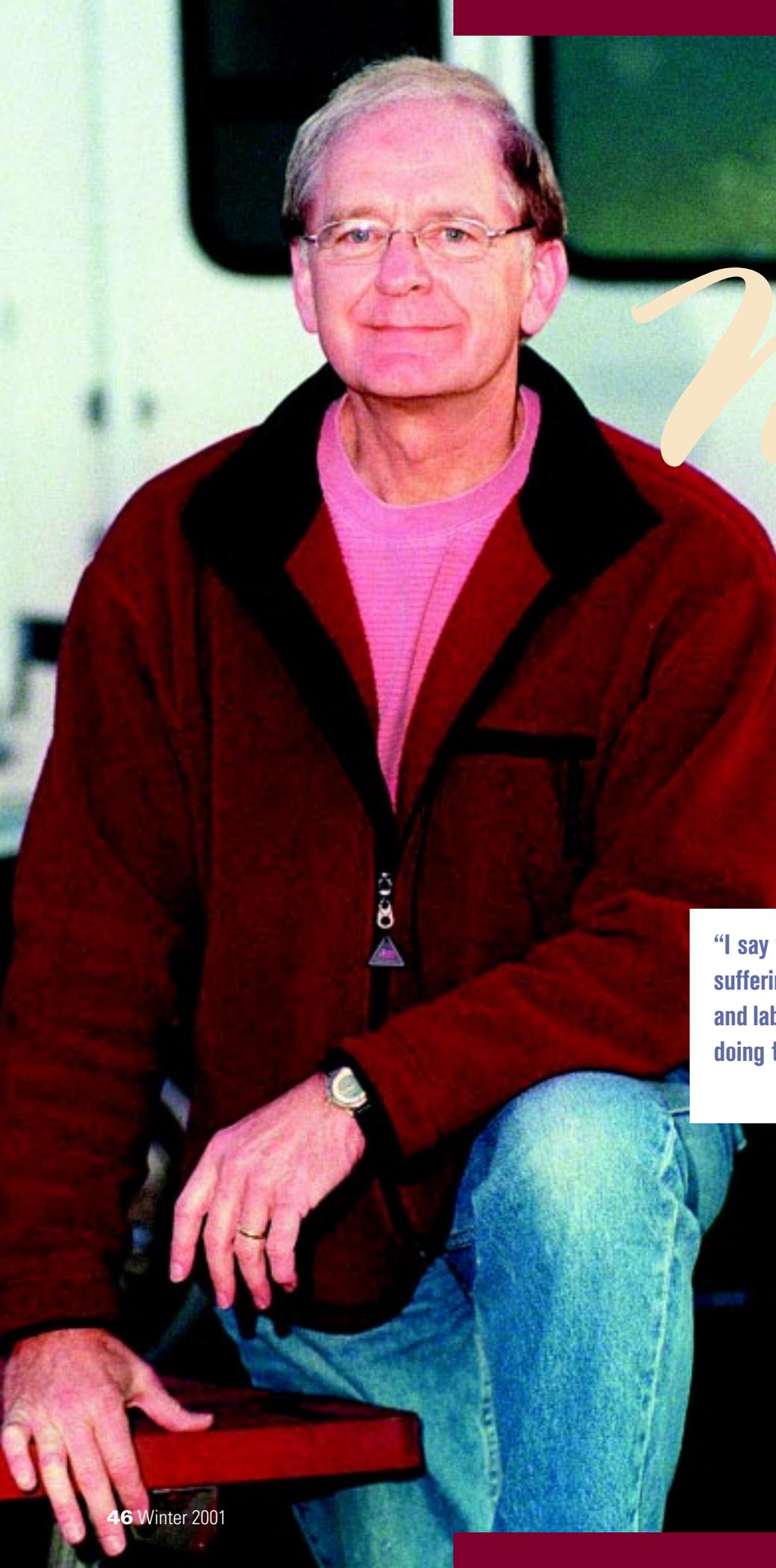
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Healing and Discovering:

**Michigan's Ambitious MSTP Grads
Bridge the Clinic and the Laboratory**





After 30 Years of Caring for Animals Used in Medical Research at the University, Dan Ringler Retires from Laboratory Animal Medicine

Dan Ringler grew up on a dairy farm in New London, Ohio, the sort of operation where people were unsentimental about their animals, especially the non-working kind.

So when he entered the veterinary medicine program at Ohio State in 1961, "I really wasn't prepared to see the depth of feeling that urban people had for their pets, treating them just like members of the family," says Ringler, who retired last May after 30 years on the laboratory animal medicine faculty, the last 15 of them as the director of the Unit for Laboratory Animal Medicine (ULAM).

"I say we're in the business of reducing pain and suffering on the planet, and that medical research and laboratory animal medicine go hand in hand in doing that"

—Dan Ringler

By then, he had a pet of his own — a dog that his sixth-grade girlfriend, now wife, was forced to give away by her parents and the first animal ever allowed into his own parents' home — and later had many more. "We've had a whole menagerie over the years," he says, "dogs and cats and hamsters and guinea pigs and birds."

Since one of ULAM's principal functions is to house and care for the thousands of animals used in medical research at the University, as well as by the Unit's own faculty and postdoctoral fellows, this might

Medical Research

a Veterinarian who Found his Niche in Medical Research

come as a surprise to animal rights activists who take issue with the very enterprise that Ringler has run. It also leads to some gallows humor.

"I've had a lot of pets offered to me over the years," he chuckles, "usually at social events after Bowser has had a particularly bad day."

But he doesn't just like animals; he esteems them. "I think humanity owes a lot to laboratory animals," he says. And he believes their use in research eventually benefits their own kind as well as human-kind. "I say we're in the business of reducing pain and suffering on the planet, and that medical research and laboratory animal medicine go hand in hand in doing that," Ringler says. "Millions and millions of animals have been spared diseases and disability because of progress in human medicine, which eventually works its way into veterinary medicine."

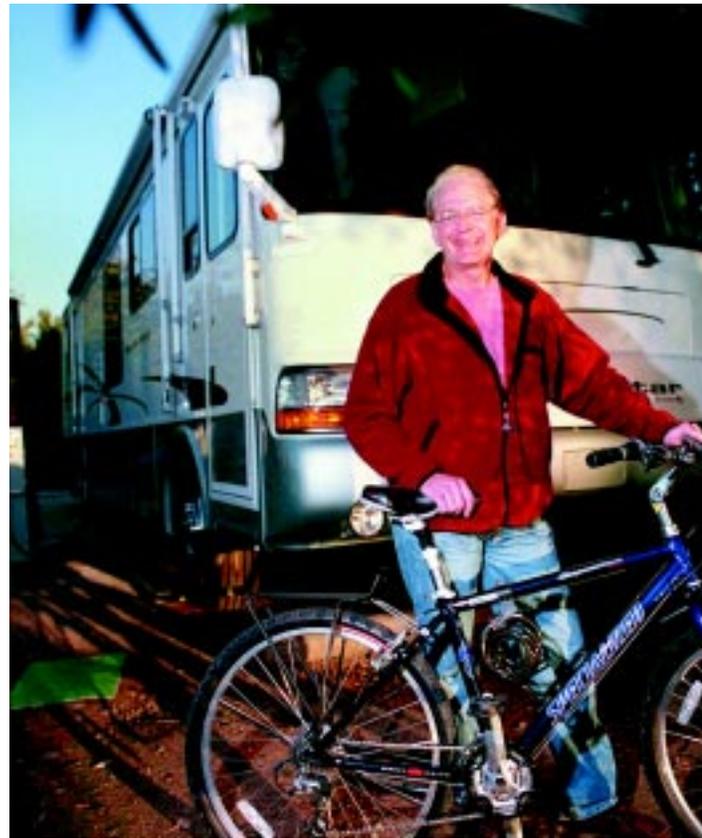
It was, in fact, the chance to contribute to advances in human medical knowledge that first drew him to the field of laboratory animal medicine. He graduated from Ohio State at the peak of the Vietnam War, still intending eventually to practice large-animal veterinary medicine, joined the U.S. Army Veterinary Corps rather than be drafted, and was sent for training at Walter Reed Army Institute of Research in Washington.

His job would be to direct a laboratory analyzing food being sent to the troops overseas — "The food inspection corps in the Army was mainly veterinarians, because of what we knew about public health and

sanitation from our veterinary training" — but "part of our training was related to laboratory animals, because veterinarians are also responsible for all the laboratory animals, and doing that training piqued my interest in laboratory animal medicine, which was a new specialty of veterinary medicine at the time.

"I thought the field would assist in medical cures. That was the attraction, that taking care of the laboratory animals and ensuring that they were healthy and well would help medical researchers find cures for human diseases and diseases of other animals. It was a niche that a veterinarian could fill in the larger medical research enterprise that would be satisfying. I found that to be true over these last 30 years."

After his Army stint ended in 1967, Ringler came to ULAM as a postdoctoral fellow, earning a master's in pathology from the Medical School as part of his program. He joined the faculty as soon as he completed his training. The specialty was still in its infancy when Ringler came to Ann Arbor, having originated in the 1950s in the Chicago area. ULAM itself wasn't established until 1962, when its founding director, the late Bennett Cohen, brought a



Photos on these and the following pages of Dan Ringler and his wife, Ariane, on a post-retirement motor tour of the U.S., at their campsite near San Diego, California, taken by Don Kohlbauer of the *San Diego Union-Tribune*.

Meat and Bones

National Institutes of Health training grant here with him from UCLA. Ringler, who succeeded Cohen as director in 1985, believes it's the longest-running NIH training grant at U-M.

Cohen was one of the so-called "Chicago Five" who founded both the specialty and the American Association for Laboratory Animal Science, which now has about 7,000 members. "The veterinarians at that time were being hired by medical schools to

Ringler. "That's because surgery was the principal medical research specialty, and surgeons used dogs, because of their size, to perfect all the techniques of surgery that we take for granted now."

These days, however, the mouse has become "the designer animal for biomedical research," he says. "The genetics of the mouse are known, the genome is almost sequenced, and almost any disease can be induced in mice, any genetic disease certainly, and studied as a substitute for humans that have the same genetic defect."

The average daily census of mice has quintupled during Ringler's tenure, from 12,000 to 60,000, or about 90% of the animals housed at ULAM. At the same time, the number of dogs used every year has plummeted to 500.

Maybe that's why the activists have been so quiet lately. "Dogs, cats and monkeys are the emotional species in this country," Ringler says. "Other cultures have different animals that they treasure more or elevate to higher status for either religious or cultural reasons. There have been almost no demonstrations in Ann Arbor regarding the use of animals in research, but there have been a few minor demonstrations elsewhere in the last few years about the use of monkeys, in particular."

He is very clear about his views on this subject, and he has very clearly had to explain them more than once or twice. "I feel that the animals are treated very well, better than most pet animals," he says. "They seem healthy and happy in their existence here, and they are doing a great service for humans and other animals. The whole industry of laboratory animal care has grown up in this country since the 1950s to ensure that the animals are healthy and well treated and that the research is worthwhile. And I assure the activists of all of this. We give tours of the animal facilities to any responsible person or group. We're proud of what we have and pleased to show other people, and I'm convinced that the citizens of Michigan would be proud of what we have also."

improve the quality of care of laboratory animals and to deal with the animal activists who were picketing in Chicago in the 1950s," says Ringler. "The training programs basically brought in graduate veterinarians who understood cows and horses and dogs and cats but had had very little training in diseases of the laboratory animals: rats and mice, guinea pigs, monkeys and rabbits."

And dogs, lots of dogs. "When I came here, we were using about 6,000 dogs a year in medical research, probably the most numerous animal in use at that time," says



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Research

And he gives the activists their due. After all, they helped spur the creation of his specialty. “The animal activists all through the years have pushed medical administrators and national groups to improve the lives of the laboratory animals and the controls on, and scrutiny of, the research,” he says.

U-M established its University Committee on Use and Care of Animals in 1965. In 1986, a new federal law required that committee to approve all use of vertebrate animals on campus. “The regulations require that the committee also include a member of the public who is not affiliated in any way with the institution, and that that person be allowed to review the projects and file minority reports if there’s disagreement about whether the project should go forward,” Ringler says. “We’ve always had two outside members [out of 16], and we’ve never carried out a project where the outside members disapproved.”

He also points out what might, at the very least, be considered an irony. “Animals have access to veterinary medical care 24 hours a day, every day,” he says. “The federal animal welfare act requires that every animal be observed every day for distress or illness or injury, and that veterinary medical attention be available that day. There’s no such law pertaining to children that requires that standard of medical care.” [m](#)

