

What Moves You?



For its 2016 Conference, the NAVC asked veterinary professionals to share their stories:

What drives you?
What inspires you?
What moves you?

Throughout the year, *Today's Veterinary Technician* will be publishing veterinary technicians' answers to these questions.

What moves you?

Do you have a story you'd like to share? Send it to us at TVTech_submissions@NAVC.com.

Submissions should be approximately 500 words or less and may be posted on our website or edited for publication in the journal.

Tell us your story!

"Good schooling is an important foundation, but the technician you become is the one you make of yourself by keeping your nose to the grindstone."

—Renaud "Ren" Houyoux

Being in the Driver's Seat

Renaud "Ren" Houyoux, LVT

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"What moves you?"

At first, this seems like a simple question, and answering it seems like it should be just as simple. Strangely enough, though, it is not a common question, so when I really started to think about it, it became apparent that my answer would be much more involved than I originally anticipated.

In 1998, I passed the Veterinary Technician National Examination after graduating from an American Veterinary Medical Association–accredited program and was on my way to do my part in veterinary medicine. My first job as a credentialed technician was at an American Animal Hospital Association (AAHA)–accredited specialty practice, and the norm for this level of patient care has remained my baseline in doing my job. (Looking back, the people that trained me may have been a little over the top, but they were effective.) I was both excited and scared to death when, after I completed my internship, the owner offered me a position to work the overnight critical care/emergency shift. I voiced my enthusiasm—and concerns—and he told me, "Ren, you're going to find out real quick whether or not you're cut out for the job. Do you want the position?" I said yes, and the rest is history.

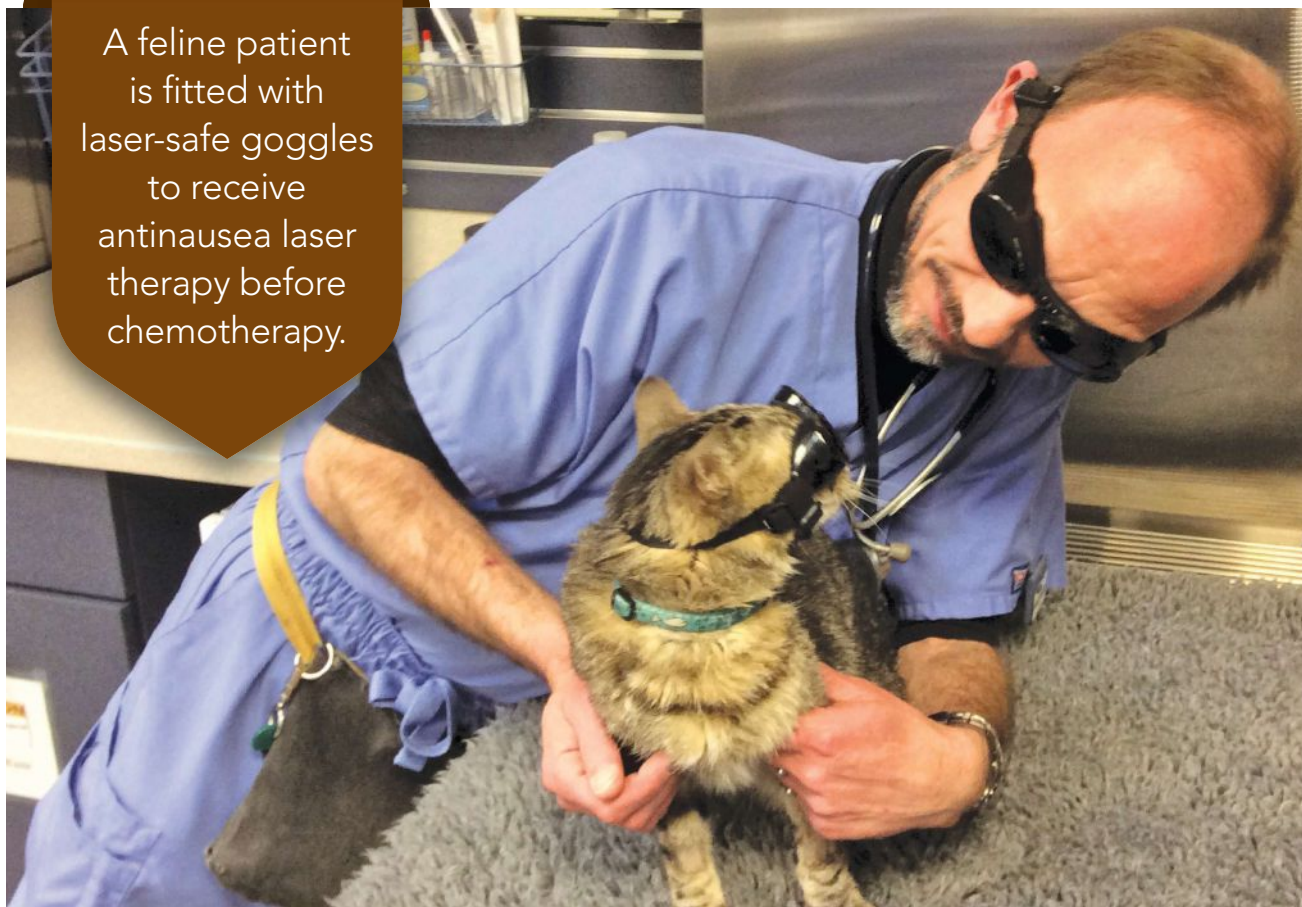
I quickly discovered that I was one of the lucky few to have found my true passion. I have found that if you are passionate about something, everything will fall into place. Good schooling is an important foundation, but the technician you become is the one you make of yourself by keeping your nose to the grindstone as the years accumulate. There are times when it is very difficult to remain steadfast, but at the end of the day it has been a blessing to me to be a veterinary technician.

A Cornucopia of Motivation

So, what moves me as a technician? Well, everything! We as technicians are responsible in so many aspects of veterinary medicine that a virtual cornucopia of elements moves me. Technicians are the foot soldiers in the trenches, carrying out the doctors' orders. At any given time, we can be instrumental in reducing pain, delivering therapeutics, keeping a patient safe under anesthesia, cleaning teeth, triaging emergencies, providing client education on how to give subcutaneous fluids or insulin, going over the discharge instructions with a client after a spay, keeping cancer in remission, cleaning that explosive blowout from a parvovirus patient, or just rocking a cat gently as he recovers from a surgical procedure. There are simply too many things we do as technicians to be able to list them all. However, we all have areas we naturally gravitate to as we work.

I am lucky enough to have worked at excellent practices, including general practice and specialty facilities. Currently, I am grateful to be in a practice where we are very progressive. We are able to provide optimal care for our patients with cutting-edge medicine, so I will narrow down my areas of interest to two: laser therapy and chemotherapy.

A feline patient is fitted with laser-safe goggles to receive anti-nausea laser therapy before chemotherapy.



Laser Therapy: In the Driver's Seat

My primary devotion is the use of laser therapy delivery platforms. Only approved in the United States for about 10 years, laser therapy has proven itself to be a godsend for our patients. While I understand the limitations of the current science and the physical limitations of individual patients, this modality has shown its value in practice to me. I am a hard sell but also a pragmatist—I want to see results. I have seen those results with laser therapy: a noninvasive, painless tool that minimizes pain, reduces inflammation, and potentiates active tissue healing. We're not just attenuating symptoms, we are inducing a physical cascade resulting in tissue normalization. Treatments are usually short and require no sedation.

The best part about laser therapy is that the veterinary technician is in the driver's seat. Just like an ultrasonic scaler, the laser is our tool! We get to educate the client on the modality, we get to perform the treatments, and we get hands-on with patients as we guide them through treatment courses.

Laser therapy is doctor-ordered but technician-driven. I believe that veterinary technicians will be instrumental in the rapid evolution of this aspect of veterinary medicine.

While it's come a long way in the past few years, there remains a lot of untapped potential. We may come to find some benefit in treating malignancy sites, immune-mediated diseases, epilepsy, and many other conditions that are currently untreated for lack of clinical data as to benefit—there are no proven clinical data confirming that laser treatment would do harm in these cases.

Laser therapy remains on the cutting edge of medicine and will continue to evolve as we continue to treat patients and share our successes and failures. This is a unique time to be a veterinary technician—we can help pioneer this technology. In years to come, laser therapy will be mainstream medicine, and it will be a standard of care. For example, AAHA and the American Association of Feline Practitioners recently added laser therapy to their pain management guidelines. Although few veterinary technicians currently perform these treatments, our ability to deliver better treatments will rise as the number of laser operators continues to grow.

Chemotherapy: Treatment Victories

My second area of special interest is chemotherapy. Cancer remains one of the biggest causes of death in

NexGard® (afoxolaner) Chewables

CAUTION: Federal (USA) law restricts this drug to use by or on the order of a licensed veterinarian.

Description:

NexGard® (afoxolaner) is available in four sizes of beef-flavored, soft chewables for oral administration to dogs and puppies according to their weight. Each chewable is formulated to provide a minimum afoxolaner dosage of 1.14 mg/lb (2.5 mg/kg). Afoxolaner has the chemical composition 1-Naphthalenecarboxamide, 4-[5-[3-chloro-5-(trifluoromethyl)-phenyl]-4,5-dihydro-5-(trifluoromethyl)-3-isoxazolyl]-N-[2-oxo-2-[(2,2,2-trifluoroethyl)amino]ethyl].

Indications:

NexGard kills adult fleas and is indicated for the treatment and prevention of flea infestations (*Ctenocephalides felis*), and the treatment and control of Black-legged tick (*Ixodes scapularis*), American Dog tick (*Dermacentor variabilis*), Lone Star tick (*Amblyomma americanum*), and Brown dog tick (*Rhipicephalus sanguineus*) infestations in dogs and puppies 8 weeks of age and older, weighing 4 pounds of body weight or greater, for one month.

Dosage and Administration:

NexGard is given orally once a month, at the minimum dosage of 1.14 mg/lb (2.5 mg/kg).

Dosing Schedule:

Body Weight	Afoxolaner Per Chewable (mg)	Chewables Administered
4.0 to 10.0 lbs.	11.3	One
10.1 to 24.0 lbs.	28.3	One
24.1 to 60.0 lbs.	68	One
60.1 to 121.0 lbs.	136	One
Over 121.0 lbs.	Administer the appropriate combination of chewables	

NexGard can be administered with or without food. Care should be taken that the dog consumes the complete dose, and treated animals should be observed for a few minutes to ensure that part of the dose is not lost or refused. If it is suspected that any of the dose has been lost or if vomiting occurs within two hours of administration, redose with another full dose. If a dose is missed, administer NexGard and resume a monthly dosing schedule.

Flea Treatment and Prevention:

Treatment with NexGard may begin at any time of the year. In areas where fleas are common year-round, monthly treatment with NexGard should continue the entire year without interruption.

To minimize the likelihood of flea reinfestation, it is important to treat all animals within a household with an approved flea control product.

Tick Treatment and Control:

Treatment with NexGard may begin at any time of the year (see **Effectiveness**).

Contraindications:

There are no known contraindications for the use of NexGard.

Warnings:

Not for use in humans. Keep this and all drugs out of the reach of children. In case of accidental ingestion, contact a physician immediately.

Precautions:

The safe use of NexGard in breeding, pregnant or lactating dogs has not been evaluated. Use with caution in dogs with a history of seizures (see **Adverse Reactions**).

Adverse Reactions:

In a well-controlled US field study, which included a total of 333 households and 615 treated dogs (415 administered afoxolaner, 200 administered active control), no serious adverse reactions were observed with NexGard.

Over the 90-day study period, all observations of potential adverse reactions were recorded. The most frequent reactions reported at an incidence of > 1% within any of the three months of observations are presented in the following table. The most frequently reported adverse reaction was vomiting. The occurrence of vomiting was generally self-limiting and of short duration and tended to decrease with subsequent doses in both groups. Five treated dogs experienced anorexia during the study, and two of those dogs experienced anorexia with the first dose but not subsequent doses.

Table 1: Dogs With Adverse Reactions.

	Treatment Group			
	Afoxolaner		Oral active control	
	N ¹	% (n=415)	N ²	% (n=200)
Vomiting (with and without blood)	17	4.1	25	12.5
Dry/Flaky Skin	13	3.1	2	1.0
Diarrhea (with and without blood)	13	3.1	7	3.5
Lethargy	7	1.7	4	2.0
Anorexia	5	1.2	9	4.5

¹Number of dogs in the afoxolaner treatment group with the identified abnormality.

²Number of dogs in the control group with the identified abnormality.

In the US field study, one dog with a history of seizures experienced a seizure on the same day after receiving the first dose and on the same day after receiving the second dose of NexGard. This dog experienced a third seizure one week after receiving the third dose. The dog remained enrolled and completed the study. Another dog with a history of seizures had a seizure 19 days after the third dose of NexGard. The dog remained enrolled and completed the study. A third dog with a history of seizures received NexGard and experienced no seizures throughout the study.

To report suspected adverse events, for technical assistance or to obtain a copy of the MSDS, contact Meril at 1-888-637-4251 or www.merial.com/NexGard. For additional information about adverse drug experience reporting for animal drugs, contact FDA at 1-888-FDA-VETS or online at <http://www.fda.gov/AnimalVeterinary/SafetyHealth>.

Mode of Action:

Afoxolaner is a member of the isoxazoline family, shown to bind at a binding site to inhibit insect and acarine ligand-gated chloride channels, in particular those gated by the neurotransmitter gamma-aminobutyric acid (GABA), thereby blocking pre- and post-synaptic transfer of chloride ions across cell membranes. Prolonged afoxolaner-induced hyperexcitation results in uncontrolled activity of the central nervous system and death of insects and acarines. The selective toxicity of afoxolaner between insects and acarines and mammals may be inferred by the differential sensitivity of the insects and acarines' GABA receptors versus mammalian GABA receptors.

Effectiveness:

In a well-controlled laboratory study, NexGard began to kill fleas four hours after initial administration and demonstrated >99% effectiveness at eight hours. In a separate well-controlled laboratory study, NexGard demonstrated 100% effectiveness against adult fleas 24 hours post-infestation for 35 days, and was ≥ 93% effective at 12 hours post-infestation through Day 21, and on Day 35. On Day 28, NexGard was 81.1% effective 12 hours post-infestation. Dogs in both the treated and control groups that were infested with fleas on Day -1 generated flea eggs at 12- and 24-hours post-treatment (0-11 eggs and 1-17 eggs in the NexGard treated dogs, and 4-30 eggs and 0-118 eggs in the control dogs, at 12- and 24-hours, respectively). At subsequent evaluations post-infestation, fleas from dogs in the treated group were essentially unable to produce any eggs (0-1 eggs) while fleas from dogs in the control group continued to produce eggs (1-141 eggs).

In a 90-day US field study conducted in households with existing flea infestations of varying severity, the effectiveness of NexGard against fleas on the Day 30, 60 and 90 visits compared with baseline was 98.0%, 99.7%, and 99.9%, respectively. Collectively, the data from the three studies (two laboratory and one field) demonstrate that NexGard kills fleas before they can lay eggs, thus preventing subsequent flea infestations after the start of treatment of existing flea infestations.

In well-controlled laboratory studies, NexGard demonstrated >97% effectiveness against *Dermacentor variabilis*, >94% effectiveness against *Ixodes scapularis*, and >93% effectiveness against *Rhipicephalus sanguineus*, 48 hours post-infestation for 30 days. At 72 hours post-infestation, NexGard demonstrated >97% effectiveness against *Amblyomma americanum* for 30 days.

Animal Safety:

In a margin of safety study, NexGard was administered orally to 8 to 9-week-old Beagle puppies at 1, 3, and 5 times the maximum exposure dose (6.3 mg/kg) for three treatments every 28 days, followed by three treatments every 14 days, for a total of six treatments. Dogs in the control group were sham-dosed. There were no clinically-relevant effects related to treatment on physical examination, body weight, food consumption, clinical pathology (hematology, clinical chemistries, or coagulation tests), gross pathology, histopathology or organ weights. Vomiting occurred throughout the study, with a similar incidence in the treated and control groups, including one dog in the 5x group that vomited four hours after treatment.

In a well-controlled field study, NexGard was used concomitantly with other medications, such as vaccines, antihelmintics, antibiotics (including topicals), steroids, NSAIDs, anesthetics, and antihistamines. No adverse reactions were observed from the concomitant use of NexGard with other medications.

Storage Information:

Store at or below 30°C (86°F) with excursions permitted up to 40°C (104°F).

How Supplied:

NexGard is available in four sizes of beef-flavored soft chewables: 11.3, 28.3, 68 or 136 mg afoxolaner. Each chewable size is available in color-coded packages of 1, 3 or 6 beef-flavored chewables.

NADA 141-406, Approved by FDA

Marketed by: Frontline Vet Labs™, a Division of Merial, Inc.

Duluth, GA 30096-4640 USA

Made in Brazil.

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veterinary medicine. We must be very careful when dealing with cytotoxic agents, but they can be very useful when handled and delivered appropriately. There is nothing easy about chemotherapy—it is financially taxing, emotionally taxing, and potentially very hazardous to both the patient and the veterinary technician.

If I can keep a cancer in remission to buy any amount of time for a patient while promoting the human-animal bond, I'll take it as a victory. We as technicians need to be the anchor for clients who are at a loss when presented with the fact that their beloved pet has a terminal disease. Clients inevitably refer to what they know of chemotherapy: hair loss, anemia, oral ulcers, etc. We must reassure them that we would not consider a patient a valid candidate to undergo a chemotherapy protocol unless we believed we could avoid side effects that would reduce quality of life—and yet we are prepared to deal with potential sequelae. We will not sacrifice quality of life for quantity of life, but we will take each and every successful treatment as a victory.

Giving All the Best Care to Animals in Need

Being a veterinary technician can be just as rewarding as it can be absolutely heartbreaking. I try to focus on the positive while dealing with the negative, even when that includes euthanasia. Euthanasia never gets easier, but we learn to deal with it. My rationale is that if it is the last thing that I can do for a patient, then I'm going to make darn sure it is done right. I will not walk away from my patient in its time of greatest need.

So there you have it. What moves me? It's all providing the best possible medical care for creatures that are better than us. Humans dwell on things and over-rationalize their situation, while our patients will never feel sorry for themselves. They never question why things are the way they are. They just live in the moment and accept everything for what it is. In my mind, this makes them better than us, and I plan on continuing to help them the best I can for as long as I can.

Veterinary technicians should feel blessed to do what we do. Veterinary medicine continues to evolve, and we as technicians are on the forefront of potentiating its applications. The rise of technician specialty academies also shows the way our work is becoming more recognized by the veterinary community. The things we do affect countless lives, including children—some of whom will be our future counterparts. Be prepared. Adapt, improvise, and overcome. But first and foremost, keep your nose to the grindstone. Ad astra per aspera. ■