

WEST COAST VETERINARIAN

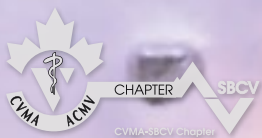
JUNE 2015 | Nº 19

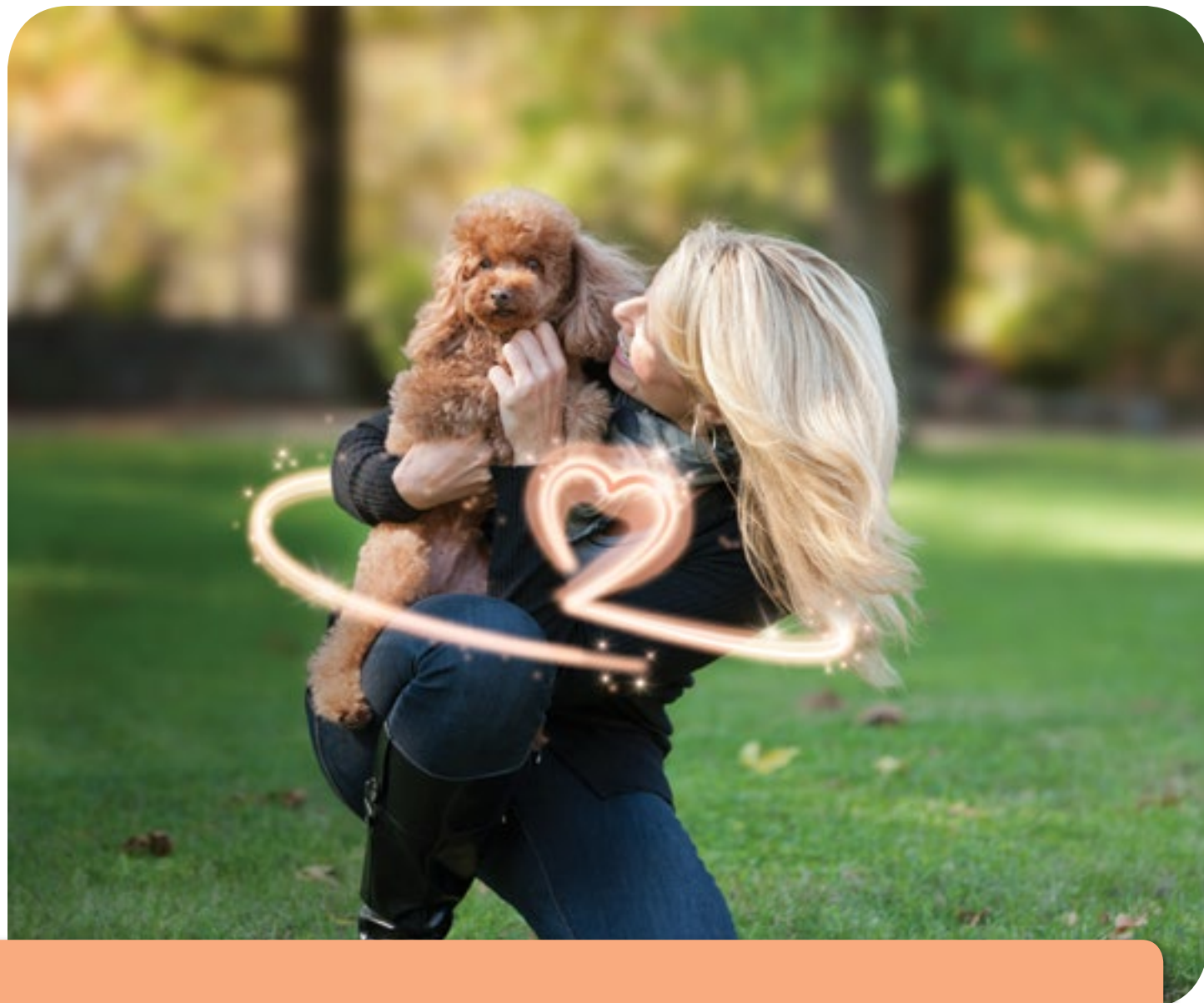


GETTING THE MOST OUT OF A RADIOLOGY REFERRAL
MENTAL HEALTH AT THE WCVM
CANADIAN ANIMAL ASSISTANCE TEAM
VACCINES IN THE VETERINARY WORLD

PHYSICAL REHABILITATION

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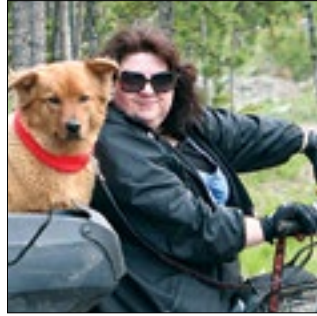
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from the editor



COREY VAN'T HAAFF
EDITOR

»» TO THE EDITOR

Letters from members are welcome. They may be edited for length and clarity. Email us at wceditor@gmail.com.

»» ON THE COVER

French Bulldog during a hydrotherapy session. Photo by Jenn Panko.

Over the last few months, I've had the opportunity to see veterinary professionalism up close and personal: Clara is seeing her regular veterinarian for teeth cleaning and removal of a very large and poorly placed lipoma; Tallula is seeing a dental specialist for a tricky extraction of her only remaining canine tooth; and both Olga and Tikka volunteered to be blood donors (well, I may have had something to do with signing them up). I am always amazed at the breadth of knowledge of those veterinarians whose paths I cross.

And at the same time, I am so proud of this magazine and those who contribute to it, many of whom I know I may never meet. *West Coast Veterinarian* is such a great resource because of stories like Dr. Arman's "Vaccines in the Veterinary World" which mimics a problem we are seeing with human measles (when a disease ceases to be a disease, do we stop vaccinating?). Our readers also benefit from the specialist stories in every issue, and from stories submitted to us out of the blue, like Dr. Spooner's piece on his work with the Canadian Animal Assistance Team.

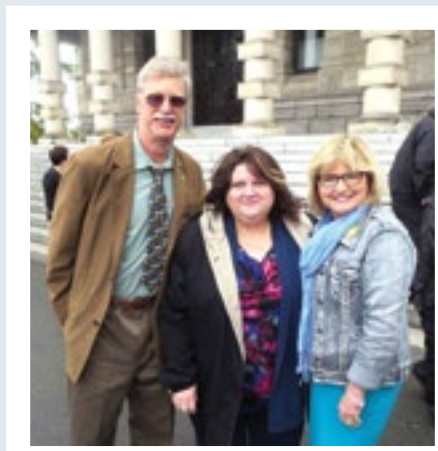
If you have an idea for a story you want to write (or a topic you think we should research), or you are a specialist who wants to share a case study and some specific information referring veterinarians should know about, or you are a veterinarian in general practice working possibly with an RVT/AHT on an interesting aspect of veterinary medicine, such as the two folks writing about rehabilitation in this issue, please contact us at the email address below. Our content is both for you and from you.

Thanks. Enjoy this issue.

Email: wceditor@gmail.com

APRIL 23 DECLARED ANIMAL ABUSE PREVENTION DAY IN BC

CVMA-SBCV Chapter Vice-President Dr. Al Longair and Executive Director Corey Van't Haaff met MLA Jane Thornthwaite on the steps of the Legislature in Victoria in recognition of Animal Abuse Prevention Day. Minister Norm Letnick declared April 23 Animal Abuse Prevention Day.



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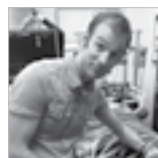
WCV CONTRIBUTORS



KOHARIK ARMAN, DVM, graduated from the Atlantic Veterinary College in 2007 and entered feline-specific practice in Ottawa. She moved to Vancouver in 2009 and started working at Cats Only Veterinary Clinic where she is currently employed. She also does locum work at Vancouver Feline Hospital and North West Nuclear Medicine for Animals. Koharik is a member of the Board of Directors of the CVMA-SBCV Chapter.



JEFF BOWRA, DVM, CCRP, is a 1994 graduate of the Ontario Veterinary College. He is the owner of Aldergrove Animal Hospital and founder of The SPAW, a pet rehabilitation and fitness centre, and the first veterinary hospital in Canada with an underwater treadmill and therapy pool. He is a member of the American Canine Sports Medicine Association and has taken Advanced Training in Canine Sports Medicine and Rehabilitation through the University of Tennessee and the Canine Rehabilitation Institute in Florida.



LAWRENCE BROWN, DVM, MS, Dipl. ACVR, graduated from Atlantic Veterinary College and did his residency and his MS at Auburn University. Following positions at the University of Tennessee and Boundary Bay Veterinary Specialists, he now provides mobile veterinary radiology service in the Greater Vancouver region, in addition to teaching at the University of Saskatoon and the University of Calgary.



STEVEN CHAPMAN was born and raised in Fort St. John, BC, and over the summers has returned home to work at the local small animal practice. He likes to spend his spare time playing guitar, stone carving, and being outdoors, particularly camping, hiking, and fishing. Steven is our student liaison and is in his second year at WCV.



JENN PANKO, RVT/CCRP (OCMC, CAPMC), owns and manages The SPAW in partnership with Dr. Jeff Bowra and the Aldergrove Animal Hospital. Her clinical experience includes a variety of work in private, referral, and academic companion animal practice, mobile, racetrack, and surgical equine practice, and wildlife rehabilitation. Prior to her recent relocation to British Columbia she was part of the team at The Hill's Pet Nutrition Primary Healthcare Centre, as a primary healthcare technician and coordinator of the Companion Animal Rehabilitation Service at OVC.



ROB SPOONER, DVM, graduated from WCV in 1989, and began practicing as a veterinarian in the Lower Mainland. He currently works at Yaletown Pet Hospital. He is also a member of the Canadian Animal Assistance Team and has taken part in projects with the team throughout BC and Yukon, and has made several trips to Botswana.

WCV

JUNE 2015

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WEST COAST VETERINARIAN

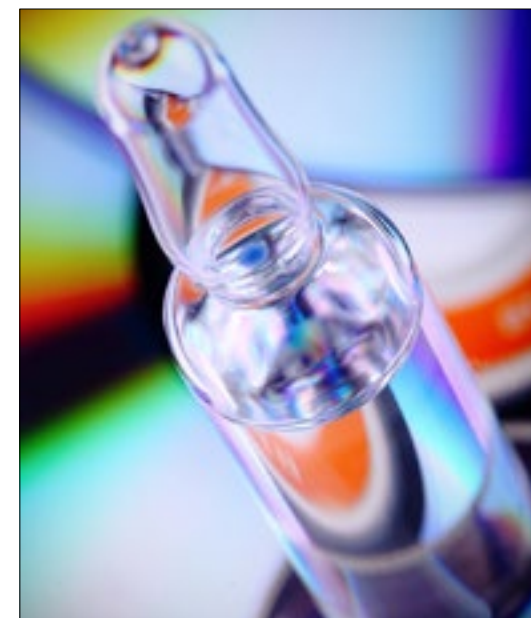


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june

BY JEAN GAUVIN, DVM

After our long Canadian winter, the CVMA is ready to celebrate warmer weather with our annual convention, which is being held in Calgary from July 16 to 19, in partnership with the Alberta Veterinary Medical Association, and in collaboration with the Registered Veterinary Technologists and Technicians of Canada. This year's convention offers the best continuing education (CE) for you. With more than 105 hours of potential CE, you can earn up to 25 hours of CE in four days. We hope you'll venture over the Rockies and join us and your neighbours at this incredible event. You can find more information about this year's convention on the CVMA Convention section under the Science & Knowledge tab of our website.

Late in the winter, I sent a letter on behalf of the CVMA to the Minister of Veterans Affairs Canada, weighing in on the government's decision to undertake the development of national standards for psychiatric service dogs under the Mental Health Services for Veterans Action Plan. While the CVMA supports this initiative, we caution against breed-specific limitations and call for the use of humane training methods, with emphasis on using reward-based methods. We have offered to provide veterinary input should it be required during this process.

In keeping with our goal of supporting provincial veterinary medical associations, we have announced a new member service, the CVMA WebStore, which allows you to offer your clients the ultimate in customer service with your own web store customized and branded to your practice. You can enhance and control your product offering without the cost of carrying inventory and also create and manage automated wellness plans that will greatly reduce your staff's administration. More details can be found under the FAQs (member log-in required) section of the Practice & Economics tab on our website.

The CVMA recognizes the challenge of beginning a new career, especially during the first years in practice. In an effort to help overcome these challenges, we have created a CVMA Mentoring Program to facilitate connections among members and provide support to final-year DVM students, recently-graduated members, and veterinarians at the beginning of their careers. I encourage you to visit the CVMA Mentoring Program section under the Practice & Economics tab on our website to learn more.

The CVMA is continuing its work around antimicrobial stewardship and has revised its position statement on Antimicrobial Use in Animals to state that antimicrobials of high importance in human medicine (VDD Cat I-III) should only be used under veterinary oversight following a veterinary prescription. Antimicrobials approved by Health Canada should

be used whenever possible. The CVMA believes that:

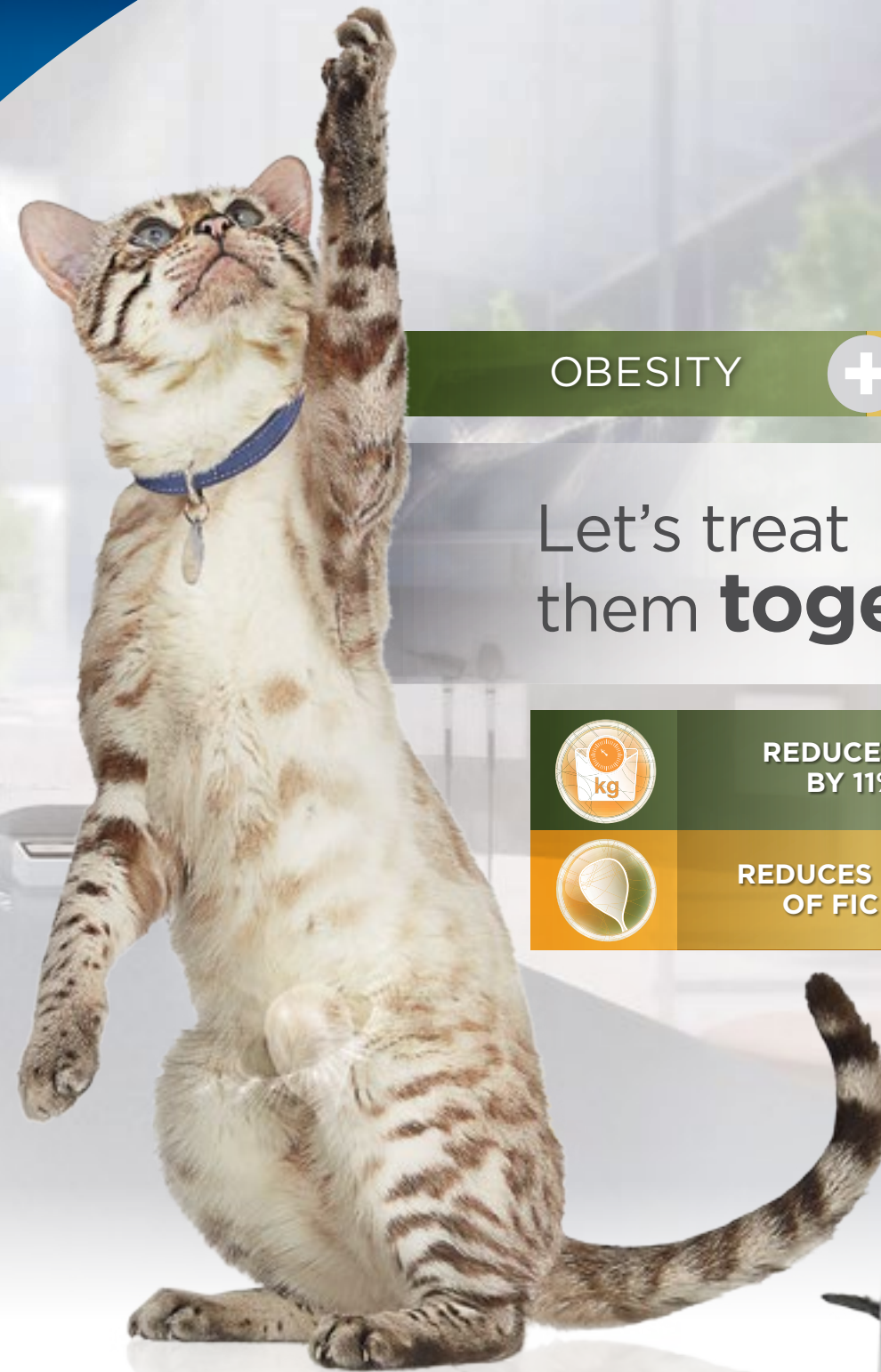
- veterinarians should promote antimicrobial stewardship practice that includes ongoing continuing education, the use of relevant practice guidelines, and good infection control practices.
- appropriate Extra Label Drug Use of antimicrobials is essential in certain circumstances, but should not be used unless there is evidence-based support for efficacy, dose, indication, withdrawal, etc., and
- availability of medically important antimicrobials by prescription only will require extensive consultation with veterinary/livestock producer stakeholders, as it could mean changes to the current animal production business model.

I, and the rest of the staff at the CVMA, look forward to your continued support as a CVMA-SBCV Chapter member throughout the summer so that we may continue to provide a voice for Canadian veterinarians as our profession faces the many challenges of the changing times.

We welcome your comments and inquiries at the CVMA office. Please contact us by email at admin@cvma-acmv.org or by telephone at 1-800-567-2862. Your feedback is extremely valuable to us.



Jean Gauvin, DVM, graduated from the Faculty of Veterinary Medicine at the University of Montreal in 1980. He taught in universities and colleges for several years before devoting himself exclusively to private practice. He has more than 20 years of experience in the field of electronic (radio, television) and written media. In 2000, he was the recipient of the CVMA's Small Animal Practitioner of the Year. Fluent in both official languages, he is frequently called upon to give lectures across Canada. Dr. Gauvin and his wife Lyne have two sons, Charles and Alexandre. They live with a Wire-haired Teckel named Maya; Gaston, an orange tabby cat; and Caroline, the turtle.



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BY SARAH ARMSTRONG, DVM

In early February I was invited to attend the Manitoba Veterinary Medical Association's (MVMA) yearly conference and AGM on behalf of the CVMA-SBCV Chapter. This was my first time visiting *Winterpeg* as the locals of Winnipeg so lovingly call it. It was frigidly cold and snowy which, as a Vancouverite, I was not accustomed to. But I had a great time and look forward to attending similar meetings in the future. Many thanks to the MVMA for having me.

The MVMA is a great example of a tightly knit veterinary community which works together to advance the provincial veterinary profession. It is a joint regulatory and member-services organization as the BC Veterinary Medical Association once was. The MVMA is working on some very interesting projects this year, some of which I find particularly interesting and which gave me some ideas for our members.

The MVMA is opening up its Veterinary Act to focus on fee clarity, veterinary incorporation, and regulation of AHTs. The Association is also talking about partnering with the Manitoba College of Pharmacists and teaching pharmacists basic information on veterinary pharmacology and veterinary prescription writing. This is something that I would love to see our Chapter investigate. There is so much potential here to educate both the pharmacists and the public, and to work together with pharmacists rather than against them.

After the AGM, I got the chance to sit down with Dr. Roxanne Neufeld, the MVMA's new president, and Dr. Jean Gauvin, president of the CVMA. We talked about some of the MVMA's new programs and the CVMA's marketing strategies which will be geared towards regaining public support and trust in the veterinary profession. We talked about other VMAs across Canada and their programs including, for example, Quebec where the Association changed its bylaws so that only AHTs can perform certain

duties (performing anesthesia, and calculating and administering drugs). To accommodate veterinarians who had tenured veterinary assistants and who would have had trouble hiring AHTs, the Association grandfathered in some senior veterinary assistants to make passing the new bylaws easier to swallow.

I would like to remind everyone of our two fall events. This year promises to bring you some great CE. The Equine Conference, run by Dr. John Twidale, will be held in October, and our Chapter's yearly conference will be at the Pinnacle Hotel Vancouver Harbourfront, November 6th to 8th. For more information, contact our executive director at cvma-sbcv@cvma-acmv.org.

Lastly, we have come full circle with our WCVM scholarships. WCVM students have been asking for a scholarship from us for several years, and we can now officially announce that we are offering two scholarships. The first, for \$1500, is from the Chapter's equine committee, and the second is from the CVMA-SBCV Chapter for \$2500. Both will be awarded at the September awards ceremony to students with high academic standing.

I leave you to enjoy your summer with friends, families, and colleagues, as I look forward to trying to maintain a work-life balance and enjoy my summer as well.



Sarah Armstrong, DVM, graduated from OVC in 2007. Following graduation, she worked full time in general practice and worked part time at a local emergency practice in Southern Ontario before moving to Vancouver, BC, where she currently works at the Vancouver Animal Emergency Clinic.

CVMA-SBCV CHAPTER FALL CONFERENCE & TRADE SHOW

NOVEMBER 6-8, 2015

PINNACLE HOTEL VANCOUVER HARBOURFRONT

FRIDAY, NOVEMBER 6, 2015

Speaker: Dr. Andy Roark 

Dr. Andy Roark's sessions are generously sponsored by IDEXX Laboratories

How to Drive Change in Your Veterinary Practice

Have you ever had a fantastic idea that your team didn't buy into? Have you ever worked so hard just to see the project you cared about slowly disappear under waves of apathy? Learn how to get every member of your team (whether you're a practice owner or not) to buy into your vision and raise the standard of care in your practice.

How to Be an Exam Room Rock Star

Building trust is building business. Learn how to build trust quickly, providing pet owners with what they really want, and getting them to let you practice the medicine their pet needs. This unique and useful exam room productivity lecture is chockfull of customer service research and tips from behavioral psychology.

Dinner and Keynote Address: The Positive Power of Negativity

(This dinner event requires an additional ticket purchase and does not qualify for CE credit)

This engaging session addresses many of the most pressing struggles facing modern veterinary medicine. Dr. Roark talks about his greatest fears going forward, and how the challenges practices face today can offer solutions for tomorrow.

CVBC Registrants Meeting

SATURDAY, NOVEMBER 7, 2015

Speaker: Dr. Tony Yu 

Dr. Tony Yu's sessions are generously sponsored by MERCK Animal Health

Dispelling Myths

This session reviews current approaches and treatment options of otitis externa, and why we need to let go of some myths that have been created along the way.

Bald Isn't Always Beautiful

This session offers new insight and options in treating non-inflammatory alopecias.

Thinking Outside the Box

You'll be challenged to bring a new way of thinking to the treatment canine demodicosis. Dr. Yu explores current approaches and treatments, and how you might think outside of the box.

Speaker: Dr. Robin Downing 

Dr. Robin Downing's sessions are generously sponsored by Trupanion

Taming the Acute Pain Beast

Intervening on behalf of patients who are about to be painful due to a surgical procedure with targeted therapy is a new concept, but attacking specific targets in the body with specific "weapons" in the war on pain transforms potential suffering into protection from suffering. This session will focus on creating a truly balanced analgesic experience for animals experiencing acute pain including new medications, new approaches, and simplifying continuous rate infusion.

Chronic Pain: The Gift That Keeps on Giving

Chronic maladaptive pain is "pain as disease." You can create a fountain of youth for patients living with maladaptive pain but it requires looking for that pain and utilizing targeted therapy. This session will focus on pain assessment and identification, and will answer the question "What do I do once I find chronic maladaptive pain?"

CVMA-SBCV Chapter AGM

SUNDAY, NOVEMBER 8, 2015

Speaker: Dr. Margie Scherk 

Dr. Margie Scherk's sessions are generously sponsored by Cat Healthy

Respectful Cat Handling vs. Cat Wrangling: Improving Cat Experiences in Practice

Handling cats in practice can be challenging. The social structure and needs of cats are very different than ours. They are both predators and prey, which affects how they respond to us in a clinic setting. Learn tips and techniques to interact with cats to make your — and their — hospital experience less stressful.

Improving Client Compliance in your Feline Practice

Cats don't like coming to the clinic; clients don't like bringing them. Within the clinic setting, many of us prefer to handle dogs. By addressing these realities, we can increase the number of visits and improve the care our feline patients are offered. Respectful, feline-friendly handling will encourage more client compliance with our professional recommendations.

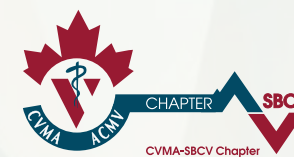
Cat Healthy: Putting the Simplified Protocols into Practice

The Cat Healthy Protocols have been simplified to make them even easier to use on a day-to-day basis. This interactive session will show you how to implement them and make them work for you.

The Geriatric Cat: Complex Management with Multiple Disorders

The older cat often presents with concurrent disease conditions that can result in complexities management. We will look at examples of chronic kidney disease combined with arthritis, with hyperthyroidism, and with diabetes, paying particular attention to nutrition, analgesia, and environmental needs.

🎟 Tickets go on sale in July 2015 🎟



BY JANE PRITCHARD, DVM, MVetSc

ZOONOTIC DISEASE AND THE PRACTITIONERS OF BC

Veterinarians do a good job informing owners of the risks of zoonotic disease, whether it is psittacosis in a pet bird or Q fever in sheep. It is not our responsibility alone, though. The responsibility for informing and looking after the owners in cases of zoonotic disease risk rests with the owner's physician and local health authority supported by the BC Centre for Disease Control.

With the new British Columbia Animal Health Act in place, veterinary practitioners now have a responsibility beyond advising owners that their animals have the disease. By law, you must now report the following list of zoonotic diseases to the Office of the Chief Veterinarian in BC. By reporting to the Chief Veterinarian, you are excluded from the reporting requirement of the Reportable and Notifiable Diseases Regulation. Reports are to be made to the Chief Veterinarian who in turn shares the reports with the Provincial Health Officer under an Information Transfer Agreement.

LIST OF ZOONOTIC DISEASES IN ANIMALS REPORTABLE TO PUBLIC HEALTH AUTHORITIES

- Anthrax (*Bacillus anthracis*)
- Bovine Spongiform Encephalopathy
- Chlamydiosis (psittacosis in humans - *Chlamydia psittaci*)
- Brucellosis (*Brucella abortus, melitensis, suis*)
- Influenza H5 and H7
- Influenza A in swine
- Plague (*Yersinia pestis*)
- Q fever (*Coxiella burnetii*)
- Tuberculosis (*Mycobacterium bovis, tuberculosis*)
- West Nile Virus
- Zoonotic Viral Hemorrhagic Fevers
- Rabies
- Trichinosis (*Trichinella spiralis*)
- Tularemia (*Francisella tularensis*)
- New or unusual animal diseases or disease clusters with potential public health significance

Zoonotic viral hemorrhagic fevers and rabies are the only two diseases for which both clinical and laboratory-confirmed cases should be reported. All other listed diseases are reported only if laboratory-confirmed.

Veterinarians in the Ministry of Agriculture have worked closely with MD epidemiologists within the BC Centre for Disease Control to identify the tests required for laboratory confirmation of the diseases. Clear

guidelines for responses to each of the diseases listed have also been jointly developed. This is to ensure that the response from Health in dealing with both the reporting veterinarian and the animal owner is appropriate and confidential. This has not always been the case, but it was seen as essential with this new process. In addition, with each report to the Provincial Health Officer, the Chief Veterinarian provides a risk assessment to promote an appropriate public health response.

Zoonotic diseases are only a small number of the diseases that, if encountered, now need to be reported by veterinarians in British Columbia. The full listing is available at http://www.bclaws.ca/civix/document/id/complete/statreg/7_2015. Reporting of these diseases is important to protect the health and economic viability of BC's animal agriculture.

UPDATE ON AVIAN INFLUENZA IN BC

Our outbreak is over, but we are still in the 90-day post-outbreak surveillance period. The industry is being very careful while the wild waterfowl, source of the H5N2 virus, migrate back north. Ontario's outbreak just started, though. As of today, April 7th, Ontario has eight premises under quarantine. The index barn was a curtain-sided turkey barn, as was one of our two index barns on December 1st. Ontario has confirmed that the virus is H5, but the N has not been determined to date.



Jane Pritchard, DVM, MVetSc, graduated from OVC in 1977, and completed a Masters in Anatomic Pathology at WCVM in 2000, continuing as an Associate Professor in the Department of Pathology for two years before embarking on a career with the BC Ministry of Agriculture in 2004. With the exception of a two-year international development project in China from 2007-2009, she has remained with the BC Government. In 2013, she was appointed to the role of Director of the Plant and Animal Health Branch, and Chief Veterinarian for the Province of British Columbia.



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¹ RECOMBITEK[®] Lyme Product label
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³ Impact vet YTD September 2014, includes the whole range of IMRAB vaccines.



MENTAL HEALTH AT THE WCVM

BY STEVEN CHAPMAN

The topic of mental health in the veterinary profession has started to gain a lot of attention lately, and so it should. Things are no different at veterinary school, with students experiencing stress and burnout, especially nearing the final exam season. We are the future of the profession, and it is crucial that we practice self-care and mindfulness, and that we are able to address or find help during the difficult times that we will all experience. The WCVM has several initiatives underway to help students with this, including a mindfulness elective (the WCVM is the only veterinary school with a credited mindfulness program), a student-run wellness program, and a veterinary social worker at the college.

The mindfulness elective in the third year is very popular, with only twenty seats available that fill up almost instantly, and studies show that students who take the class have increased attention and a significant reduction in stress. Dr. Trisha Dowling, the instructor and founder of the course, gave me a brief explanation of the theory behind her class and an article by Dr. Ronald Epstein, a huge proponent of clinician self-awareness and mindfulness. Early in the course, she instructs students to focus on an itch they have. After a period of close attention, the itch will go away. Next, she progresses to yoga poses that create slight discomfort. Again, with complete focus, the discomfort will go away.

What does this have to do with veterinary medicine? Imagine a scenario where you are angered by someone or something. Instead of focusing on the issue, you put it aside, it festers in the back of your mind, and you think about it all day. If you had focused on the problem and dealt with it, it would have faded away just like the itch. Practicing these behaviours promotes self-awareness, or as Dr. Dowling says, “Thinking about how you’re thinking.” Mindfulness and its associated partner self-awareness provide practitioners with more cognition about their mental health and allow them to live in the moment rather than being on autopilot. This can help to avoid potential burnout.

Even more interesting is the idea that self-aware practitioners can provide more involved and compassionate care for their patients. In contrast to how one may act towards a stereotypical client or a typical pattern of symptoms, mindfulness allows the clinician to focus on and listen to the client as an individual case, resulting in better communication and treatment. The most crucial element of mindful practice is to simply try it out to see if it works for you, as self-awareness and self-care only work when you actively practice them.

The Western Canadian Veterinary Students’ Association runs a wellness program called Pawsitive Practice, which is currently organized by third-year student Kristin Wiebe. All events are on a volunteer basis, are open to anyone in the college, and focus on getting students away from their books and helping to remove stress. According to Kristin, the most crucial idea in Pawsitive Practice is to get students to realize that it’s okay to talk about mental health issues. This year, she has organized a lot of great events such as yoga sessions, a clothes exchange, and a donation program, and she has introduced veterinary students to a University of Saskatchewan inter-professional problem-based learning seminar. She also set up “Women of the Round Table,” a seminar for fourth-year female students to talk to local female practitioners about balancing families, pregnancy, and work. As a student in Dr. Dowling’s mindfulness elective, Kristin organized mindfulness sessions for those who could not take the elective. She agrees that the experience is eye-opening, and that until you actually try mindfulness for yourself you have no idea what it is truly about.

“STUDENTS WHO TAKE THE CLASS HAVE INCREASED ATTENTION AND A SIGNIFICANT REDUCTION IN STRESS”

The school’s new veterinary social worker, Erin Wasson, started at the WCVM in September of 2014, initiating the first Veterinary Social Work (VSW) Program in Canada. Current models exist throughout the US from the professionalizing of VSW at the University of Tennessee. Erin lends friendly, familiar assistance and support for all issues students and faculty might be experiencing at the WCVM. She’s noted that veterinarians and veterinary students have high rates of empathy-fatigue and burnout, which often begins with an unforeseen circumstance mixed with a lack of self-care. This can then lead to a personal crisis, leaving the profession, substance abuse, or suicide. It is important to recognize the signs of empathy-fatigue and to practice preventative strategies, self-care, and awareness. Another suggestion is the use of a debriefing method after a day of work or school. The VSW program also provides clients with emotional support for difficult treatment plans, end-of-life decisions, and euthanasia. The program even offers assistance during special circumstances such as financial issues, crisis intervention, and animal welfare/abuse.

Erin grew up on a farm in Saskatchewan, which helps her relate to producers. She goes on farm calls to large animal disease investigations and offers support during times of extreme financial and emotional hardships. Since the school year started, about 70% of the people she sees are clients at the WCVM’s Veterinary Medical Centre, 20% are faculty, and 10% are students, although that percentage is increasing as she becomes better known around the school. Erin and the VSW program are now a major part of the medical treatment team at the WCVM. She is a huge asset to the clients, faculty, and students, improving both communication and mental health.

The WCVM has started some groundbreaking programs to address the issues of burnout and empathy-fatigue among staff and students. These new ideas are a great step in the right direction and will continue to develop, improving mental health within the college. These initiatives will provide the WCVM’s graduates with some strategies of self-care and awareness, as well as a great support network to help reduce mental health problems within the profession. [WCV](#)

GETTING THE MOST OUT OF A RADIOLOGY REFERRAL

BY LAWRENCE BROWN, DVM, MS, DIPL. ACVR

CASE STUDY

A 10-year-old female spayed Australian Shepherd presented with a history of anorexia and weight loss. Blood work showed marked increase in ALP, moderate increase in ALT. Radiographs taken by the veterinarian showed a markedly asymmetric liver enlargement on the right side. Abdominal ultrasound was performed to assess for a potential liver mass, and further sampling completed for a diagnosis and to assess if the case was surgical. Upon examination of the dog, a large mass was discovered originating from the right adrenal gland that had invaded the adjacent vena cava and was extending through the lumen into the liver and ascending the hepatic vasculature. There were multiple masses throughout the liver that had characteristics of metastatic disease. The impression in this case was of a primary right adrenal gland mass, likely a cortical carcinoma or medullary pheochromocytoma that had invaded the vena cava and metastasized to the rest of the liver parenchyma. Given the extent of the liver involvement and the degree of involvement of the vena cava, the case was considered not to be a good candidate for surgery.

This is a good example of a complete abdominal exam being crucial in making the diagnosis. If only the liver had been examined, the adrenal gland mass would have been missed. Although not a good outcome for the patient, the owner was very happy to have a clear understanding of what was wrong with her dog and was able to make a decision based on clear information from this exam.

W

hen people think of the role of a radiologist, they commonly think of someone who “reads radiographs and does ultrasound,” but this is only the tip of the iceberg. We are veterinarians first and foremost. In veterinary school, certainly, radiology classes consist of reviewing physics, looking at radiographs to consider the anatomy and pathophysiology of a disease, and applying these to an understanding of medicine and surgery to come up with a diagnosis. This is very simplistic, however, and does not incorporate the most important aspect of radiology, which is communication.

Radiologists help with day-to-day radiograph interpretation, but we can also bring diagnostic clarity to a case. Ultrasound, for example, can often be the key to understanding a diagnosis when pulling information from the history, physical exam, and blood work. An ultrasound is not a substitute for a good history and physical exam, but it can make a difference in deciding on a diagnosis and therefore dictate treatment direction.

I work in a specialist hospital, on the road doing mobile ultrasound, and also at an academic teaching institution, and I see a variety of cases. Typically, I am involved with examinations of the abdomen and the thorax, but I also do a surprising amount of musculoskeletal examinations. Of these, shoulder exams are the most common, once again differentiating soft tissue injuries where physical examination and radiographs have indicated an issue but further clarification is needed.

Part of the job of the mobile radiologist is visiting practices to perform ultrasound examinations requested by veterinarians when the history, physical examination, and blood work indicate a problem requiring additional investigation. A good example is the jaundiced animal where prehepatic causes have been ruled out. Clients and veterinarians usually prefer to be seen at their clinic, so being mobile makes sense. The client does not have to travel to a specialty clinic (sometimes quite a long journey), and the veterinarian can interact face to face with the radiologist. This also builds a good relationship and trust between all parties.

When I visit clinics, I take an esoate Mylab Alpha portable high-quality ultrasound machine with which I use a variety of probes, depending on the part of the body I am examining and the size of the dog. Each individual case is different, and this is balanced by the owner's wants and finances, but in considering a radiology referral, I usually encourage bloodwork prior to an examination. Radiographs of the abdomen can also be very useful prior to an ultrasound exam, but these are not always obtained. Often clinicians are unsure if an ultrasound

examination would be a useful test for a specific case, in which case a telephone consult can be arranged.

All of these aspects are enhanced by good communication, which includes understanding the day-to-day issues that come up regarding client communication and financial concerns, and then combining these to find an appropriate case management plan. It also includes not just the ability to write a good report, but listening to clinician concerns, conveying the findings effectively, and offering advice on the direction of a case.

A specialist should be a key part of the relationship between client and veterinarian where communication between all three can allow an appropriate diagnostic and treatment plan. When I receive radiographs to review, commonly they are sent not because the clinician cannot see a lesion or does not understand what is going on, but because they want clarification of what they are seeing that is clinically significant, and more importantly they need guidelines for case direction.

For example, the bread-and-butter type of radiograph case I receive is the ‘vomiting dog’ and the clinical concern for a GI foreign body obstruction. These cases are often not clear-cut diagnoses. We can all think of obvious examples of linear foreign bodies seen on radiographs where surgical intervention is needed to prevent dire consequences, but these are usually the exception in my caseload. More often, the referral presents with varying histories and physical exam findings, and I am often relied upon to suggest whether surgery is indicated or not.

“A RADIOLOGIST IS ALSO THE JUNCTION BOX FOR REFERRAL”



A radiograph is a test, and like any test it can give both false-positive and false-negative results. Talking to the clinician and discussing the animal's history, clinical findings, and radiographic findings is extremely important. It is this interaction that makes a good radiologist an integral part of the patient-clinician relationship.

A radiologist is also the junction box for referral. For example, when I perform an ultrasound at a specialty clinic or at a referring vet's practice, the type of case I am dealing with does not have a diagnosis and so is in a transition zone. The owner is anxious for his pet and is also considering the potential financial issues with treatment. On completion of the ultrasound, there is generally a greater understanding of a diagnosis, and when we discuss my ultrasound findings we always discuss the case direction too.

A good example is cases of suspected gallbladder disease. Assessment of the gallbladder is not straightforward and, although we are familiar with gallbladder mucoceles and the need for surgical removal,

intervention with gallbladder disease is not always as clear-cut. There are often concurrent disease processes, particularly hyperadrenocorticism and chronic pancreatitis. I am frequently involved in discussions on these cases where clients are not yet committed to surgery for a variety of reasons, and the findings are in the grey zone as to whether surgery may be an option, or if referral to an internal medicine specialist may be a more helpful option.

In nearly every case, the radiologist makes a difference because most of the time the direction of a case and treatment depend on the radiologist's findings and impressions. Although ultrasound is seen as a non-invasive minimal risk test, it has dramatic consequences if not done correctly; things are missed and findings misinterpreted. It can be a question of whether an animal is potentially euthanized or not, and so it is very important to get right. **WCV**

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BY KOHARIK ARMAN, DVM

VACCINES

IN THE VETERINARY WORLD



In 2014, the United States experienced the largest number of measles cases on record since the elimination of measles in 2000. So far this year, the United States has documented almost 200 cases of measles in the first three months of 2015 alone, and suspicion that the anti-vaccination movement is contributing to these multistate outbreaks is making news on popular media outlets. There are also concerns that the anti-vaccination trend may be gaining ground in the veterinary world, and articles published in *New York* magazine and *Popular Science* in February of this year have highlighted this matter.

Associations such as the American Veterinary Medical Association (AVMA) and the American Animal Hospital Association (AAHA) have spoken out about the recent attention that this topic has received. They encourage practitioners to educate clients about the benefits of vaccines so that the incidence of infectious companion animal diseases continues to decline, and a regression in disease elimination is not experienced.

The anti-vaccination subject is not currently as hot-button an issue in Canadian media as it is in the United States, but it is, nonetheless, a timely topic that warrants attention. In the veterinary world, in February of this year, there were four fatal cases of canine distemper that occurred in Dawson Creek. In the public health sector, in 2014, British Columbia experienced the greatest measles outbreak it has seen in 30 years, with more than 400 confirmed cases documented. Vaccination rates in children in British Columbia are declining and may be due in part to vaccination fears propagated by organizations such as the Vancouver-based Vaccine Resistance Movement and the BC-based Vaccine Risk Awareness Network.

Veterinary clinicians across Canada do regularly face questions about vaccine safety from concerned clients and occasionally encounter clientele who refuse vaccinations for their animals. Clients' fears may be fueled by information found online, including Canadian websites such as the Vaccine Risk Awareness Network that warns against animal as well as human vaccine dangers, and pet articles such as "Why Vets Are Getting Away With Murder" in the Vaccine Articles and News of *Dogs Naturally*.

“EDUCATE CLIENTS ABOUT THE BENEFITS OF VACCINES SO THAT THE INCIDENCE OF INFECTIOUS COMPANION ANIMAL DISEASES CONTINUES TO DECLINE”

Surprisingly, while “anti-vaxxers” are receiving a lot of celebrity and media attention these days, vaccine opposition in human medicine is not actually a new phenomenon. It is, in fact, an old struggle that dates all the way back to the 1800s. Dr. Andrew Wakefield and Jenny McCarthy did not create the anti-vaccine movement with the much-publicized MMR-autism debate. In the United States, the Anti-Vaccination Society of America was founded in 1879, and throughout the late 1800s and 1900s and into the 21st century, many more anti-vaccination activist societies have emerged, including the previously mentioned groups local to the

Canadian west coast. Anti-vaccine advocates have a variety of motivations, including religious, scientific, political, and philosophical beliefs, and many anti-vaccine groups, both historically and today, protest compulsory vaccination legislature in various municipalities within Canada and the United States, and in countries across Europe.

Dr. Michael Day, a renowned expert in the field of veterinary vaccinology and Chair of the World Small Animal Veterinary Association (WSAVA)'s Vaccine Guidelines Group (VGG), One Health Committee, and Scientific Committee, believes that the anti-vaccination trend has been present in veterinary medicine for at least the past 25 years in Europe, North America, and Australia, and that globally it actually came to a head in the media about 10 years ago. However, Dr. Day cautions against using the label of “anti-vaccine movement” and emphasizes that many lobby groups ultimately want the same thing that many individual experts and vaccine guidelines groups want: safer vaccinations and reduced frequency of vaccination, not the eradication of vaccine use. The good news, he points out, is that the profession is now addressing lobbyist and public concerns regarding vaccination of companion animals.

For decades, veterinarians vaccinated patients annually, a booster interval chosen arbitrarily by vaccine manufacturers, not based on duration of immunization data as determined through challenge and serological studies, and this practice left the veterinary profession vulnerable to over-vaccination criticisms. Over the last 60 years, there has been great success in the decline of infectious disease prevalence in companion animals, but over time it has also been determined that vaccinations are not entirely innocuous treatments; they can result in autoimmune disease, allergic reactions including anaphylaxis, sarcoma formation, and death. While incidences of adverse reactions are low, and statistics vary depending on the study from which they are sourced, vaccine reactions may be as infrequent as 20 animals in 100,000 vaccinated, or as common as 50 animals per 10,000.

Thanks to expert vaccinology groups such as WSAVA's VGG, the American Association of Feline Practitioners (AAFP) feline vaccination panel, and the AAHA canine vaccination taskforce, newer vaccination guidelines have been developed to aid veterinary practitioners in decreasing the frequency of vaccinations and determining the best vaccine protocols for individual patients based on their breed, health status, and risk factors. The CVMA position statement on vaccination of cats and dogs supports the assessment of vaccine requirements for every patient on an annual basis, but acknowledges that the duration of immunity data that stems from challenge and serological studies

VACCINATION TOOLBOX FOR SMALL ANIMAL PRACTITIONERS

- ▶ **CVMA Position Statement: Vaccination Protocols for Cats and Dogs**
<http://www.canadianveterinarians.net/documents/vaccination-protocols-for-dogs-and-cats>
- ▶ **CVMA Document: Vaccination and Your Dog**
<https://www.canadianveterinarians.net/documents/vaccination-and-your-dog>
- ▶ **AAHA Canine Vaccination Guidelines**
https://www.aaha.org/public_documents/professional/guidelines/caninevaccineguidelines.pdf
- ▶ **AAFP Feline Vaccination Guidelines**
<http://jfm.sagepub.com/content/15/9/785.full.pdf+html>
- ▶ **WSAVA Document: Vaccination Guidelines for New Puppy Owners 2013**
<http://www.wsava.org/sites/default/files/New%20Puppy%20Owner%20Vaccination%20Guidelines%20Updated%20July%2029%202013.pdf>

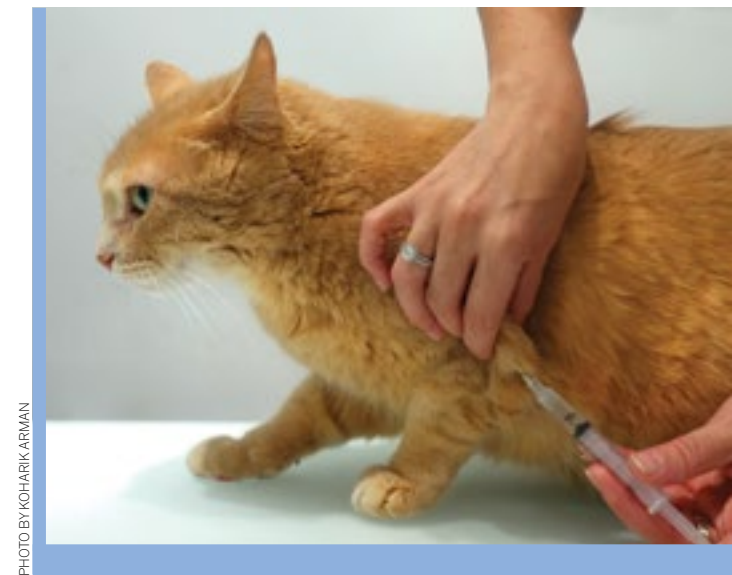


PHOTO BY KICHARK ARMAN

often confers longer lasting immunity than product label recommendations may advise for certain viral diseases, and that revaccination intervals for patients should be determined on an individual basis.

Internationally, there has been a movement throughout the veterinary profession to reduce the frequency of core vaccine intervals in cats and dogs from annual to triennial. In the future, the profession will likely see vaccine guidelines revised with revaccination intervals extended even further as more studies emerge proving that immunity established by appropriate pediatric immunization schedules can last anywhere from five years to an entire lifetime: immunology concepts that have long been accepted by the veterinary profession's human medical counterparts. Additionally, the use of serology to help

individualize revaccination requirements will likely gain more popularity in veterinary medicine as the accessibility of rapid and inexpensive in-house titre-tests such as VacciCheck by Biogal Laboratories and TiterCHEK by Zoetis improves. Vaccination schedule controversies aside, however, the bottom line when it comes to companion animal vaccination is that over the past 60-plus years, vaccines have greatly improved the lives of dogs and cats around the globe, and they have also played



an important role in public safety. Dr. Tasha Epp, Associate Professor of Veterinary Epidemiology at WCVM, feels that vaccines are, from a public health perspective, “the best medical tool we possess in the 21st century,” and that the same can also be said for animal health in the veterinary medical field. Dr. Day’s viewpoint on vaccination programs in veterinary medicine is similar: “Success in Western developed countries has been achieving control over diseases that were rife in animals—improvements in animal welfare, decreased suffering and death.” While veterinary vaccination programs have not yet eradicated any infectious diseases in companion animal medicine, they have greatly reduced the incidence of viral infections such as rabies, distemper, parvovirus, panleukopenia, and feline leukemia.

When asked what veterinary medicine’s greatest successes have been with regard to companion animal vaccination, Dr. Epp puts canine distemper at the top of her list because it is now so rarely seen in areas where vaccines are used, and it is a terrible disease to watch patients go through. She emphasizes the importance of herd immunity when it comes to highly infectious diseases like canine distemper. Herd immunity plays a significant role in preventing disease in susceptible individuals and stopping the spread of infection when cases do occur; failures of herd immunity due to high numbers of unvaccinated animals within communities can be absolutely devastating, as demonstrated

by the 2013 canine distemper outbreak in Amarillo, Texas.

Dr. Epp also highlights the rabies vaccine as another great veterinary success, due to its contribution to both human and animal health and welfare. On the subject of rabies, as an example of the impact that veterinary vaccination programs can have and where they are headed in the future, Dr. Day says that the WSAVA One Health Committee, in conjunction with the World Health Organization, the Food and Agriculture Organization of the United Nations, and the World Organization for Animal Health, is actively working towards the global eradication of the canine variant of rabies by the year 2030. Canine rabies is a disease that kills over 70,000 people annually, primarily in Africa and Asia.

Dr. Stephen Vaughan, Infectious Diseases Consultant and Clinical Assistant Professor at the University of Calgary’s Department of Medicine, is equally eager to extol the virtues of vaccinations and believes

“VACCINES ARE THE SINGLE GREATEST MEDICAL DISCOVERY IN HISTORY”

that “vaccines are the single greatest medical discovery in history with more saved lives than any other intervention.” With regard to rabies in Canada, Dr. Vaughan points out that the close proximity of Canada’s wildlife rabies reservoir to domestic animals leaves unvaccinated dogs and cats vulnerable to infection. In 2014, there were four cases of rabies documented in dogs and two in cats, and he advises that this number may be an underrepresentation due to the fact that animal deaths are not always confirmed on necropsy. Rabies cases in companion animals in Canada and the resultant risks they pose to humans who come into contact with them are vaccine-preventable losses of animal life and vaccine-preventable endangerment of human life.

Drs. Day, Epp, and Vaughan all believe that vaccination is a key component to disease prevention in companion animals and public

health safety. As Dr. Vaughan says, “The intersection of human and veterinary medicine has never been more important than now,” and even in the face of the present-day surge of the anti-vaccine movement, it will be up to veterinary practitioners across Canada to continue to educate clients and the public about the benefits of vaccinations in companion animals for the sake of their pets and for One Health. The veterinary profession will gain more trust from the public as vaccination protocols for companion animals continue to be refined and individualized, to improve patient safety, and decrease the risks of adverse reactions.

For links to canine and feline vaccine guidelines and educational handouts about animal vaccinations for clients, see the sidebar “Vaccination Toolbox for Small Animal Practitioners.” [WCV](#)

“NEWER VACCINATION GUIDELINES HAVE BEEN DEVELOPED TO AID VETERINARY PRACTITIONERS IN DECREASING THE FREQUENCY OF VACCINATIONS”

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A STEP IN THE RIGHT DIRECTION

VETERINARY PHYSICAL REHABILITATION

BY JEFF BOWRA, DVM, CCRP, AND JENN PANKO RVT, CCRP

PHOTO BY JENN PANKO

MAKING THE MOST OF YOUR REFERRAL TO IMPROVE MOBILITY AND FITNESS

CASE STUDY

A seven-year old male neutered French Bulldog arrived at the clinic's rehabilitation facility for a core strengthening, rehabilitation, and fitness program following a second episode of acute onset of intervertebral disc disease. The first episode occurred three years prior to this episode. Incomplete paralysis resolved, was fully ambulatory from two weeks of onset. Upon comprehensive mobility examination, it was noted that along with proprioceptive deficits bilaterally in his hind limbs he also had bilaterally medially luxating patella. Previous and current neurologic examination was suggestive of spinal lesion T3-L3. No diagnostics done. Did not appear painful. Slightly overweight with a body condition score of 4/5.

The owners elected to pursue conservative management and physical rehabilitation with treatment goals of increasing core strength, increasing functional use of his hind limbs, improving proprioception and fitness, maintaining mobility, and beginning a program of weight loss and osteoarthritis management (under the direction and supervision of the primary healthcare clinician).

Rehabilitation sessions occurred twice weekly, with a daily home exercise program for five weeks. Treatment included hydrotherapy on an underwater treadmill, gradually increasing time and challenge of exercise (up to 30 minutes with varying water levels, speed, incline, and use of resistance therabands). Therapeutic laser over T3-L3 to reduce inflammation surrounding spinal cord. Therapeutic exercise program consisting of cavaletti use to improve proprioception, coordination, and gait, theraball work to improve core strength, proprioception, and balance, sit-to-stands and backing up to improve hind-limb strength and coordination. Land treadmill use on incline was introduced mid-treatment plan to further improve hind-limb strength, coordination, fitness, and proprioception. Use of a peanut ball at front of treadmill allowed therapist to have patient place front limbs on ball to work hind limbs independently of front limbs (beginning with 5-second repetitions building up to 45-second intervals.) Home exercise program involved a variety of lifestyle modifications, stretching, range of motion and therapeutic exercises to manage neurologic disease, improve strength, coordination, gait, and proprioception. Exercises were reviewed and modified throughout program.

Weight loss and osteoarthritis were managed nutritionally and with chondroprotectants by the primary healthcare clinician. With the collaborative management of multiple ongoing issues between a companion animal rehabilitation service and the primary healthcare clinician, the pet benefits from being provided with a multimodal approach to his care. The client feels supported and empowered to make a positive impact on the fitness level, body condition, and overall mobility and longevity of the pet, and the clinic benefits from having a mobility-focused client who pursues ongoing treatments at the practice and is compliant and eager to do so. Rehab is a step in the right direction for the pet, the client, and the practice.

“PREVENTION IS THE BEST MEDICINE FOR BOTH PETS AND YOUR PRACTICE”

Aging pets, pets with osteoarthritis, obese pets, and pets with orthopedic impairments, neurologic disease, or injury can all be categorized as having mobility issues. When assessing suitability for rehab, we find that patients with movement disorders, weakness, pain, and limited endurance are likely candidates. Dogs who are recovering from certain surgeries or who have osteoarthritis tendonitis and soft tissue injuries also often benefit from rehabilitation therapy.

WHY REHAB?

The patient with a mobility issue is at risk for becoming obese, losing muscle mass and available range of motion in joints, and developing disuse-associated degenerative joint disease and a reduction in fitness level and overall mobility. According to Darryl Millis in his book *Canine Rehabilitation and Physical Therapy*, patients afflicted with orthopedic, neurologic, metabolic, and other diseases frequently have reduced weight bearing and use of limbs. In addition, some conditions may be treated with splints, casts, or other coaptation devices, resulting in decreased limb use. The tissues most affected by disuse and immobilization are cartilage, joint capsule, muscle, ligament, tendon, and bone. Knowledge of how these types of tissues respond to disuse and immobilization, the types of deleterious changes, and the time frame over which these changes occur are important in understanding the need for physical rehabilitation.”

For many clients, caring for a pet with a mobility issue is challenging and can often result in end-of-life decisions due to the debilitating effects of lack of mobility. When veterinarians make physical rehabilitation recommendations, they are showing genuine dedication to patient care and longevity.

As is often the case, prevention is the best medicine for both pets and your practice. Managing osteoarthritis, body condition score, and mobility all promote the longevity of pets and the development of long-term client, pet, and clinician relationships. This management plan benefits the pet by restoring or at least improving mobility, assists your client by educating him or her on issues such as treatment options and prevention, and ultimately serves your practice. This relationship can start as early as the first visit, with client education about osteoarthritis, weight management, and mobility issues as preventive medicine discussions during puppy and kitten visits.

THE BASICS

Multimodal pain management and osteoarthritis management programs consist of pharmaceutical therapy, weight control, physical exercise and rehabilitation, EPA rich diets, and use of chondroprotectants. Millis says that considering that each patient is unique, an individual pain management protocol should be designed to accompany each patient’s rehabilitation plan. Referral to a companion animal rehabilitation professional can provide your client with guidance and support to implement a multimodal approach to the pet’s care and longevity. Working collaboratively with a companion animal physical rehabilitation professional to provide your patient with a multimodal mobility management program not only benefits your patient but encourages your client to visit your practice more frequently for nutrition and weight management support, chondroprotectants and nutraceuticals, and pharmaceutical therapy.

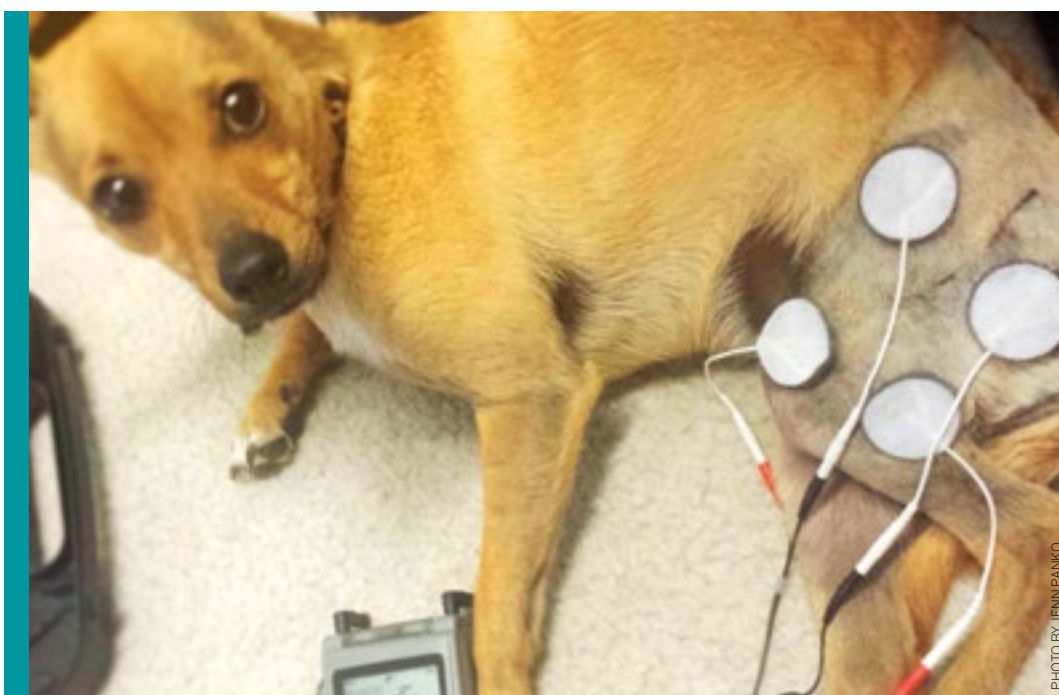


PHOTO BY JENNI PANICO



PHOTOS BY MEGHANEMES

ABOVE: (Dachshund on blue balance disc and over cavaletties) Therapeutic exercises designed to improve proprioception, ability to weight shift, core strength, and posture are helping this pet get back on his feet following spinal surgery. **PAGE 26:** (Aussie in underwater treadmill) Twice weekly use of the underwater treadmill allows this pet with osteoarthritis to maintain his range of motion and fitness, keeping him mobile and able to enjoy hiking with his family during his senior years. **PAGE 28:** (Chihuahua with e-stim unit) Electrical muscle stimulation reduces pain and encourages early limb use following surgery. **PAGE 30:** (Pit bull on pink peanut) This pet is improving her hind-limb strength, ability to weight shift, and proprioception following bilateral tibial plateau-levelling osteotomies.

THE REFERRAL

Providing your companion animal rehabilitation professional with an accurate diagnosis, list of current treatments, and goals for your patient sets a strong foundation for working collaboratively to achieve rehabilitation goals. Educating your clients about available resources at your clinic including chondroprotectants, nutraceuticals, nutrition options, and pharmaceutical therapies makes them feel supported through the rehabilitation program and confident that your clinic is the best place to manage the overall health of their pets. Knowledge of basic rehabilitation services and modalities allows you to explain to your clients why you are strongly recommending a physical rehabilitation referral for their pets.

MAKING THE MOST OF YOUR REHAB OPTIONS

THE COMPREHENSIVE MOBILITY EXAMINATION

A comprehensive mobility examination is the foundation of a physical rehabilitation program and consists of a history and assessment of mobility, pain, nutrition, orthopedic, neurologic, injury, activity level, and lifestyle. Referring clinician goals and recommendations are reviewed, and client goals and expectations are reviewed and noted. Objective measurements including range of motion and muscle mass measurements are taken. The diagnosis is reviewed, and the client’s understanding of the diagnosis and probable outcomes, physiology of joint health, healing, and exercise physiology is reviewed. This evaluation may assess function (posture and balance) at rest. Strength-testing evaluates muscle mass and the ability to perform normal activities. A plan of care is

created including home exercises, targeted therapeutic exercises, nutrition plan, pain management plan, an in-hospital rehabilitation program, and plan for re-evaluation with the attending clinician. This plan will be shared with the referring veterinarian, who will provide and monitor the non-rehab components of the plan.

THERAPEUTIC EXERCISE

Therapeutic exercise is a cornerstone of a comprehensive in-hospital rehabilitation program and home exercise plan. It is up to the therapist to determine the type, intensity, duration, frequency, and progression of exercises selected after a thorough assessment. As with a human healing from an injury or surgical intervention, activities start slow and increase in intensity and duration as healing occurs and strength returns. Exercises are reviewed at each appointment and modified based on patient response, ability, physiology of healing, and pain score. Objective goals and diagnosis allow an appropriate and safe plan to be created to reach treatment goals. Function remains the cornerstone of any rehab program.

HYDROTHERAPY

“The biomechanics of dry land exercise are very different from those of aquatic exercise. Within the aquatic exercises there is a difference between swimming and walking in the water because the joint movement and stability change according to the water level. On the underwater treadmill, the range of motion may be varied according to the water level and speed of the treadmill. Exercise on the underwater treadmill also increases the support (stance) phase (of gait) and the length of the stride, helps to achieve stability and coordination, and improves muscular endurance and strength.”¹ Treatment time, intensity, and progression are determined by patient response, ability, physiology of healing, and pain score. “Buoyancy aids in rehabilitation of muscles (atrophy) and joints, because it reduces the load on the limbs. The load depends on the water depth. It is reduced to 91% with the water at the tarsus level,

85% at the stifle and 38% at the hip (greater trochanter).¹ An accurate diagnosis and comprehensive treatment plan allow the therapist to use the above-mentioned data to maximize the benefits of hydrotherapy for your patient to assist in reaching treatment goals.

MODALITIES TO SUPPORT REHABILITATION GOALS

LASER

“Low level laser therapy (LLLT) has been used for the treatment of osteoarthritis, muscle, ligament, and tendon injuries, ulcerations and open wounds, and postsurgical and soft tissue trauma”² making it a versatile modality in veterinary physical rehabilitation. “Contraindications and precautions to LLLT include pregnancy, treatment over open fontanels or growth plates of immature animals, treatment over malignancies, treatment directly into the cornea, and treatment over photosensitive areas of the skin. Because cellular metabolism and growth are stimulated, lasers have the potential to accelerate tissue repair and cell growth of structures such as tendons, ligaments, and muscles.”²

THERAPEUTIC ULTRASOUND

“Therapeutic ultrasound may be used for thermal and nonthermal effects. The thermal effects may result in decreased pain and muscle spasm, and increased collagen extensibility.”³ This can assist the therapist in improving joint range of motion. “The nonthermal or biologic effects include acceleration of the inflammatory phase of wound healing with a quicker entry into the proliferative phase of repair, stimulation of fibroblast proliferation, promotion of stronger and more elastic scar tissue as a result of increased collagen formation and changes in collagen fiber pattern, and changes in membrane permeability that may speed the healing process.”³ Stronger and more elastic scar tissue may reduce long-term chronic pain, increase range of motion, and improve overall mobility.

ELECTRICAL STIMULATION

“Electrical stimulation is a very useful physical therapy and rehabilitation modality for treating various orthopedic and neurologic diseases, especially those causing acute and chronic pain, or muscle atrophy. Low-frequency pulsed alternating currents are most commonly used in therapeutic applications.”⁴ Protocols are targeted towards specific muscle groups or nerves, and settings reflect the tolerance level of the patient. Neuromuscular Electrical Muscle Stimulation (NMES) is electrical stimulation of a target muscle or tissue through an intact nerve. Transcutaneous Electrical Nerve Stimulation (TENS) is form of NMES used for analgesia and is “simple to use, inexpensive and portable, and therefore a good choice for pet owners to use at home so that they can provide pain relief to their pet on a daily basis.”¹

MOBILITY EQUIPMENT

Companion animal rehabilitation professionals are knowledgeable about measuring and fitting pets for assistive devices including harnesses, slings, wheelchairs, braces, and boots. Referring your clients for assistive device consultations ensures they will receive a wide variety of options from someone with the knowledge and experience to make a strong recommendation of the product best suited to their pets’ needs and abilities.

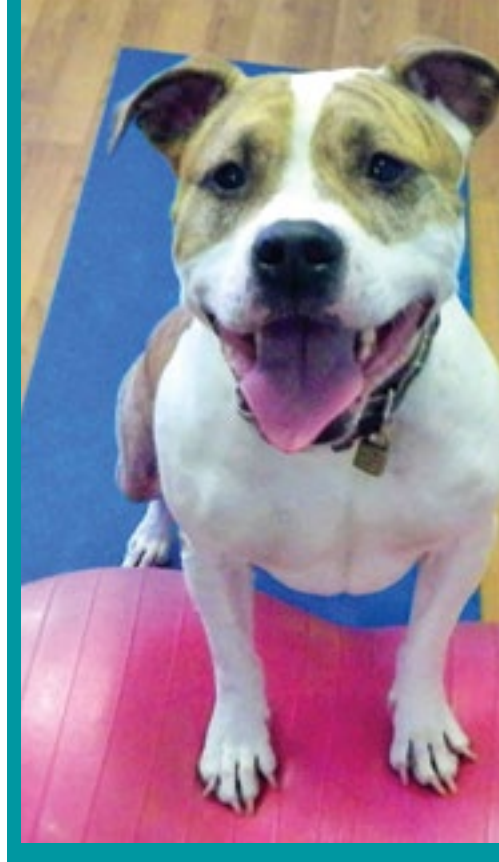


PHOTO BY JENN PANKO

“FUNCTION REMAINS THE CORNERSTONE OF ANY REHAB PROGRAM”

THE COLLABORATIVE APPROACH

Conveying the importance of lifelong pet fitness and mobility at every visit sets a solid foundation to maintain and improve the fitness and mobility of our patients and increase their longevity. It allows you a forum to discuss weight management, pain management, and osteoarthritis management from a mobility perspective. A strong recommendation of physical rehabilitation preventatively or as mobility issues arise will allow your clients to maximize and enjoy the time they have with their pets. A collaborative approach with a companion animal rehabilitation professional ensures the best possible outcome for your patients and sends clients the message that you are a proactive about their pets’ overall health, mobility and longevity. Rehab is a step in the right direction. Your clients and patients will thank you for encouraging and supporting them to take this important step in their pets’ healthcare. [WCV](#)

1 *Veterinary Physiotherapy and Rehabilitation*, Gemma del Pueyo Montesinos
2 *Emerging Modalities in Veterinary Rehabilitation*, Darryl L. Millis, MS, DVM, CCRP, David Francis, MS, DVM, Caroline Adamson, MSPT, CCRP, pages 1338, 1345
3 *Rehabilitation and Physical Therapy for Selected Orthopedic Conditions in Veterinary Patients*, Andrea L. Henderson DVM, CCRP; Christian Latimer DVM; Darryl L. Millis MS, DVM, DACVS, CCRP, DACVSMR
4 *Essential Facts of Physiotherapy in Dogs and Cats: Rehabilitation and Pain Management*, D. Levine Bockstahler



CANADIAN ANIMAL ASSISTANCE TEAM

BY ROB SPOONER, DVM



PHOTOS BY ROB SPOONER

PREVIOUS PAGE: Kitwanga, Northwest BC: This youngster was very concerned and quite intent on watching over his dog while she recovered from her spay surgery. His sisters kept dragging him away to the 'Education Centre' and the colouring books and stickers there, but he had to stick around. **TOP IMAGE:** The Kitwanga auditorium where the project was to take place quickly became a functional clinic space. **MIDDLE IMAGE:** Maun, Botswana: dogs lined up and recovering from surgery in the MAWS clinic. The clinic has sterilized over 2,000 animals annually for the past five years. **BOTTOM IMAGE:** Ontario super-tech Darci Burtch monitors while Dr. Liz Bartlett spays a small patient. The concerned owner watches over Darci's shoulder.

Have you ever found yourself feeling as if your veterinary work life is in a bit of a rut, that the same old day-to-day dog and cat and client problems aren't satisfying your need for adventure, and you want to shake things up a little? If so, the Canadian Animal Assistance Team (CAAT) might be the right thing for you. CAAT was established in 2005 by Donna Lasser, a BC veterinary technologist who was spurred into action when Hurricane Katrina struck the coast of Louisiana. As news coverage of the disaster expanded, it became clear that a veterinary presence was needed. She assembled a group of BC veterinarians, technicians, and assistants who were keen to help, and made the trip south. While there, the group connected with fellow Canadians from the east, and the foundation for CAAT was laid.

While the group began as an emergency assistance team, CAAT's focus has evolved more towards wellness-oriented projects—sterilization, vaccination, and education services. And while the group has racked up an extensive number of miles with projects in Fiji, Trinidad and Tobago, and Belize, the majority of our work is now done closer to home. The initial Canadian projects were held in the Northwest Territory and Nunavut, but it wasn't until 2008 that the first project was held in British Columbia, in the community of Ucluelet on the west coast of Vancouver Island.

Although CAAT has members across the country, the majority are based in British Columbia. While the team generally has enough technicians and support volunteers to run a project (technicians and assistants are not bound by the same provincial licensing restrictions as govern veterinarians), the membership among veterinarians is not as strong as we'd like, and has been a limiting factor in organizing projects within the province. Whereas licensed volunteer veterinarians from across Canada can provide their services in Yukon, Nunavut, Northwest Territories, and some eastern provinces, only those licensed to practice in BC can volunteer here.

I've been a member of CAAT since 2009, and a board member since 2010. During this time I've been on several projects in BC and Yukon that have allowed me to see parts of this amazing country I would not have otherwise ventured to. Also, as part of CAAT's ongoing mandate to provide services throughout the world, we have established relations with like-minded groups in Botswana, and Turks and Caicos. It has been my extreme pleasure to visit Botswana four times in as many years, and I'm slated to return this year.

Projects vary in length depending on the destination, but most BC projects take place over the course of a long weekend, incorporating two or three days of hard work, plus time spent travelling and setting up our project site—usually a community hall or gymnasium in our destination community. CAAT focuses its efforts in areas with limited access to veterinary services (either due to location and/or financial constraints), thus our work does not compete with local veterinary clinics. As the BC Veterinary Liaison, part of my role is to present project proposals to the CVMA-SBCV Chapter indicating the need for a project in a given community, as well as to gather letters of support from any clinics within a certain radius of these projects to ensure that they

approve of the work we are proposing. Almost without exception, our work has been viewed as beneficial among our colleagues. In fact, local veterinarians often join us and volunteer in our weekend clinics.

The people who come together on these projects are a diverse lot. Even though the technicians and assistants come from across Canada, I've had the pleasure of working with some of the same amazing, non-BC residents on multiple occasions. I'm looking forward to working in Botswana with an Ontario technician with whom I've had the pleasure to work on two Northern BC projects. On the other hand, I've heard such amazing reviews from other CAAT members about other veterinarians on this project, I have no qualms about working for three weeks with a complete stranger.

As much effort as the team puts in, almost without exception, the members of the community put in double that amount. CAAT projects are by invitation only—we will not visit a community unless we have been asked to visit, usually by the band leader of a First Nation or the mayor of a small community. Once a community has reached the point where an invitation has been sent, the community is already aware of both the potential problems associated with pet overpopulation, as well as the benefit that will come from hosting a project. In some communities, such as Baker Lake, Nunavut, or Burns Lake in Northern BC, we have worked with community members to establish a five-year annual plan to bring the overpopulation and animal welfare issues under control. With each year, we are building a relationship with these communities and establishing plans to ensure systems we've put in

“LOCAL VETERINARIANS OFTEN JOIN US AND VOLUNTEER IN OUR WEEKEND CLINICS”

place—revaccination, bite-awareness programs, etc.—are sustainable after CAAT is no longer continuing its annual visits.

Regardless of where the team members originate, the energy created when the group comes together is wonderful. A sense of community develops very quickly. We are all working together towards the same goal, and all members, regardless of training, pitch in. Egos and any sense of privilege are checked at the door or quickly slammed to the mat. The hours are long, the work is hard, the pay sucks, and you will have one of the most rewarding veterinary experiences of your life.

CAAT needs you, and the animals in our host communities need you! I encourage you to give some thought to joining CAAT (check out the website at www.caat-canada.org). Your help will be greatly appreciated, both by CAAT and by the members of the communities we serve. **WCV**

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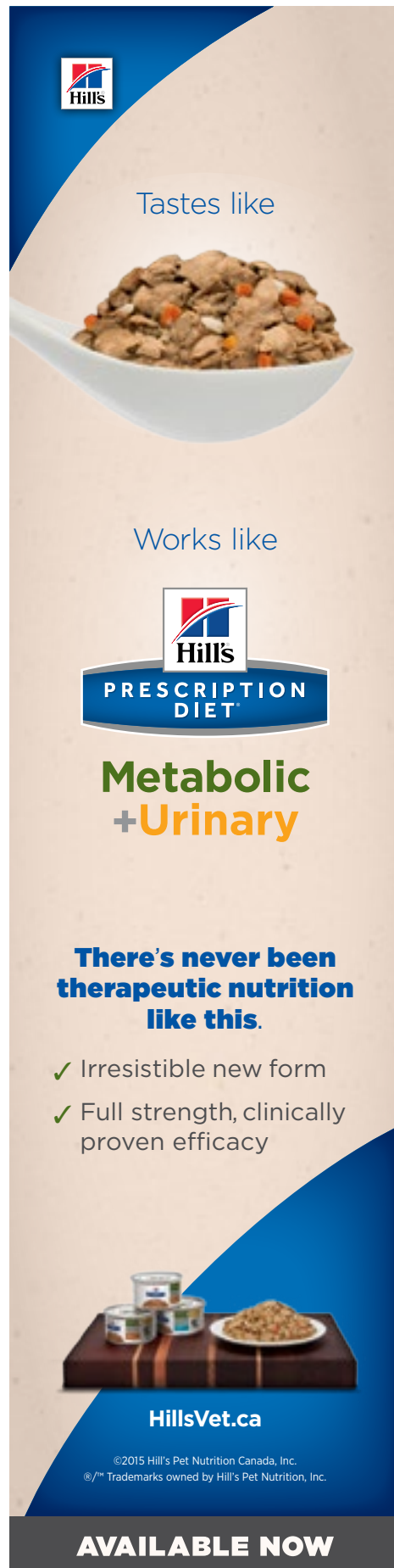
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An informal scholarship program run by the **North American Veterinary Community (NAVC)** which gives veterinarians from developing countries the opportunity to attend its annual conference has been formalized and relaunched in partnership with the World Small Animal Veterinary Association (WSAVA). For more information, visit www.wsava.org.

Aventix has announced Canine Vacchi-Check, an in-clinic test to measure antibody levels to the

three core vaccines. For more information, visit www.aventix.ca.

VetHealth Global has announced its 2015 Honorary Chair: Richard R. DeLuca, Jr., Executive Vice President and President of Animal Health for Merck & Co. For more information, visit www.vethealth-global.com.

Royal Canin has announced the introduction of SlimFit, a new weight-loss app. For more information, visit www.royalcanin.ca.

Merial has announced the acquisition of two Equine Healthcare products: LEGEND (hyaluronate sodium) and MARQUIS (15% ww ponazuril) from Bayer HealthCare. For more information, visit www.merial.com.

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