

Newsletter



internal medicine • surgery • emergency & critical care • dermatology • radiology, ultrasound & CT scan



Hello!

We would like to congratulate some of the outstanding individuals in our field. Every year the CVMA and the CACVT recognize people who contribute to the advancement of veterinary medicine and animal health. This year's winners are:

CVMA

Distinguished Service Award

Marlon Neely, DVM

Industry Partner Award

Michael T. Cavanaugh, DVM

Veterinarian of the Year

Bruce Louderback, DVM

Technician of the Year

Maura Green, LAHT, EMT

Rising Star Award

Steve Sharkey, DVM

Outstanding Faculty Award

Susan Lana, DVM, MS, DACVIM

President's Awards

Narda Robinson, DO, DVM, MS

Anne McGihon, JD

CACVT

Veterinarian of the Year

Donald Ostwald, Jr., DVM, DABVP

Technician of the Year

Elizabeth Peach, CVT

Advocate Award

Ted Cohn, DVM

Technician of the Year

Maura Green

Congratulations!

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If you prefer to receive this newsletter via email, please send your email address to ntorling@wrah.com.

Food Drive Benefiting the Denver Rescue Mission

Wheat Ridge Animal Hospital has collected food for the Denver Rescue Mission for several years. Last year we challenged VCA Alameda East Veterinary Hospital to a friendly competition and together we collected over 2,100 pounds of food!

This year we would like to up the ante and invite all of you to join forces with us for a good cause. Collect non-perishable food from staff and clients at your clinic between October 19 and November 16. We will pick up the food that you collect during the week of November 16 (if you are located outside the Denver metro area and would like to participate, we may have to make arrangements for you to drop off the food). Mid-way through the drive, we will provide a tally of the amount of food all the participants have collected at that point. A template for flyers to post at your clinic will be emailed to your point person.

Sign up to participate in the food drive by contacting Nadja Torling, 303-996-1384 or ntorling@wrah.com, before Friday, October 16. This is a great way to have fun with your co-workers while supporting a good cause!



3695 Kipling Street • Wheat Ridge, CO 80033

Tel 303-424-3325

Fax 303-420-8360

www.wheatridgeanimal.com

Appointment Hours:

Mon - Fri: 9 am to 5 pm

Sat & Sun: 9 am to 5 pm

24-hour Emergency Hospital

Meet Our Specialists



Rachel Bowlus, DVM, DACVR Board-Certified in Radiology

Dr. Bowlus grew up near Toledo, Ohio. She attended the University of Findlay in Ohio where she majored in Biology and also found time to ride horses for the equestrian team. She attended the Ohio State University College of Veterinary Medicine and graduated with honors in 2002. Dr. Bowlus went on to participate in the rotating internal medicine and surgical internship at Wheat Ridge Animal Hospital from 2002-2003. Following her internship, she was accepted into a three-year residency program in diagnostic imaging at Kansas State University. She received extensive training in cross-sectional imaging and ultrasonography. Her research interest was musculoskeletal magnetic resonance imaging. She is board-certified in veterinary radiology. Dr. Bowlus was working in private practice in Ohio before returning to Colorado to work with Diagnostic Imaging in 2007.

She enjoys taking care of her two pets Edward, a Himalayan cat, and Ruger, a bloodhound. She spends her free time running, hiking and riding Quarter horses.



Maureen Finke, DVM Practice Limited to Internal Medicine

Dr. Finke was born in Dayton, Ohio but grew up in Germany. She received her veterinary degree from Texas A&M University in 2002. After completing an internship at the Ohio State University she worked as an emergency veterinarian in Detroit, Michigan. She completed her residency in Small Animal Internal Medicine at the University of Minnesota in January 2007 and stayed on as a clinical instructor for six months. Dr. Finke successfully completed her Internal Medicine board examination in June of 2007 and awaits board-certification from the American College of Veterinary Internal Medicine.

Dr. Finke's special interests include endocrinology, immune mediated diseases and infectious diseases. She recently moved to Denver with her two cats, Lt. Dan, a three-legged rescue kitty, and Ariel, a very mischievous and naughty Siamese cross. Pippin, a young Cavalier King Charles Spaniel also recently joined the family. In her free time, Dr. Finke enjoys snowboarding and cycling.

Tri for the Cure

This August, four of the doctors at Wheat Ridge participated in the annual Tri for the Cure at Cherry Creek State Park. Dr. Rachel Bowlus (radiology), Dr. Maureen Finke (Internal Medicine), Dr. Lisa Mausbach (General Practice) and Dr. Elisa Mazzaferro (Emergency and Critical Care) were among the 3000 participants in the all-female sprint triathlon. A sprint triathlon combines a half mile open water swim, an 11.4 mile bike ride and a 3.1 mile run. This was their first triathlon and everyone was a little nervous on the big day. Luckily, a big cheering section was on hand to provide lots of support!

The first wave of athletes into the water was the cancer survivors, a large group of very inspiring people - all in pink swim caps. The rest of the competitors started in waves of 100. The open water swim was a bit of a free-for-all with everyone initially bumping, kicking and knocking into each other. However, it soon straightened out and our doctors successfully finished the swim leg. Then it was on to the bikes to ride around the reservoir. Finally, a three mile run up on the Cherry Creek Dam Road wrapped up the race. By this time, the sun was high and it was a pretty hot day. Our four doctors each crossed the finish line triumphantly, making the all the months of training worthwhile. Everyone had a wonderful time!

Tri for the Cure supports the Susan B. Komen Cancer Foundation and the event raises over \$100,000 each year for breast cancer research.



Dr. Mausbach, Dr. Finke, Dr. Mazzaferro and Dr. Bowlus on the way to the start line.

Review of Computed Tomography and Magnetic Resonance Imaging

By Rachel Bowlus, DVM, DACVR

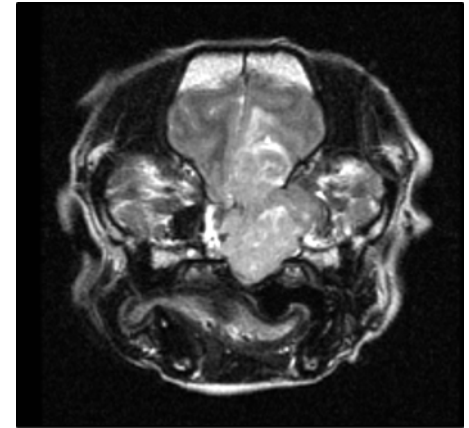
Computed tomography (CT) is computerized reconstruction of X-ray attenuation within a patient and provides a two dimensional cross-sectional image. Advantages of CT include less superimposition of structures compared to radiographs, improved contrast resolution, ability to measure differences in tissue density, and excellent detail of osseous structures. Compared to radiography, CT has superior ability to detect pulmonary metastasis and can provide more information when evaluating osseous disease such as elbow dysplasia, fractures or osseous neoplasia. Disadvantages include the fact that CT is less sensitive in soft tissue imaging compared to magnetic resonance imaging (MRI), there is radiation exposure to the patient, and artifacts can result from patient motion, metal, and dense bone. When describing CT images, the terms “density” or “attenuation” are utilized in reference to the amount of attenuation of the X-ray beam by certain tissues. Densities on CT are similar in appearance to radiographs with bone appearing white, soft tissues are shades of gray, fat is darker gray, and air is black. CT numbers or Hounsfield units are a measurement of the attenuation of tissue in an ascribed pixel or picture element of the image. The CT number can be measured in a certain region of the image, and this number corresponds to the tissue type. For instance, air has a CT number of -1000, water has a CT number of 0, soft tissue has a CT number of 30-80, and bone has a CT number of 800-1000. Conventional or axial CT is when images are acquired when the patient is stationary. Helical or spiral CT is performed with the patient moving. The advantage of helical CT is that images can be reconstructed to any slice thickness in order to improve visibility of lesions, the scan time is faster, and there is decreased radiation dose to the patient.



Computed Tomography (CT)

Magnetic resonance imaging (MRI) acquires images based on hydrogen content of tissues by applying a strong magnetic field and sending varying radio frequency fields through the patient. Advantages of MRI include imaging a body part in different planes (e.g. axial, dorsal, sagittal), obtaining excellent soft tissue contrast, and there is no radiation exposure to the patient. MRI is commonly used in neurological and musculoskeletal imaging. Disadvantages include long scan times (time depends on the magnet strength and study type), artifacts can be produced from metal implants or motion, and cortical bone cannot be imaged well. MR images are described in terms of signal intensity. If there is high signal intensity, the tissue appears white and is termed “hyperintense”. Low signal intense tissue is

black and is termed “hypointense”. Different sequences are used to intensify tissue contrast. Common sequences include T₁-weighted, T₂-weighted, proton density, and fluid attenuated inversion recovery (FLAIR). T₁-weighted images are helpful in evaluating anatomy, as the resolution is usually superior compared to other sequences. Contrast enhancement with a paramagnetic substance such as gadolinium is also visible as high signal intensity on T₁-weighted images. On pre-contrast T₁-weighted images; however, pathology can be difficult to identify, as it is usually isointense to hypointense to normal tissue. There are several tissue types that are hyperintense on T₁-weighted images such as fat, subacute hemorrhage, melanin, protein rich fluid, slow-flowing blood, calcifications, and laminar necrosis of cerebral infarcts. T₂-weighted images are useful in evaluating for diseased tissue. Pathology such as edema, tumor, infarct, inflammation, or infection can be hyperintense on T₂-weighted images. Proton density sequences produce images that correspond to the density of protons or hydrogen content of tissue. FLAIR sequences suppress high signal from free fluid such as CSF, improving visibility of periventricular disease and can help identify cysts.



Magnetic Resonance Imaging (MRI)

Announcements

Spring 2009 Continuing Education Series

We have increased the number of CE hours granted for the Spring Continuing Education Series at the Arvada Center for the Performing Arts to 3 CE hours. If you need a certificate please email Nadja Torling at ntorling@wrah.com.

Pfizer Roundtable Luncheons

We are excited to announce that we are joining forces with Pfizer to bring you roundtable luncheons. One of our specialists will visit your clinic and give a presentation on a topic of interest to you for 1.5 continuing education credit hours. Some examples include *Allergies and Otitis*, *Anesthesia in Critically Ill Patients* and *Proteinuria in Cats & Dogs*. If you have a specific topic you'd like us to present to you, just let us know. Pfizer will provide lunch. Please contact Nadja Torling to schedule a time (see above for contact information).





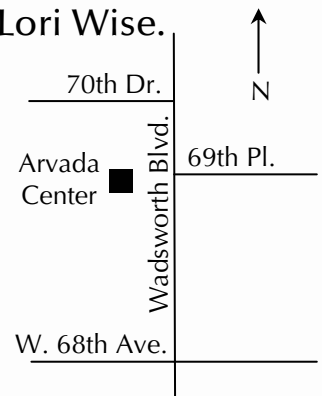
Continuing Education Series

“What’s New from the ACVIM, ACVS and IVECCS Meetings.”

Presentations by
Dr. Maureen Finke, Dr. Lenny Jonas, Dr. Elisa Mazzaferro,
Dr. Carrie Miller, Dr. John Stein, Dr. Steve Petersen and Dr. Lori Wise.
3 CE Hours

Wednesday, October 14th
Arvada Center for the Performing Arts
6901 Wadsworth Blvd.

5:30 PM Complimentary Buffet Dinner
6:00-9:00 PM Presentations



Veterinarians and CVTs welcome! Seating is limited. Please RSVP by Wednesday, October 7th.
Call the RSVP hotline, 303-996-1383, and leave a message or email ntorling@wrah.com.
We look forward to seeing you there!