

Good News

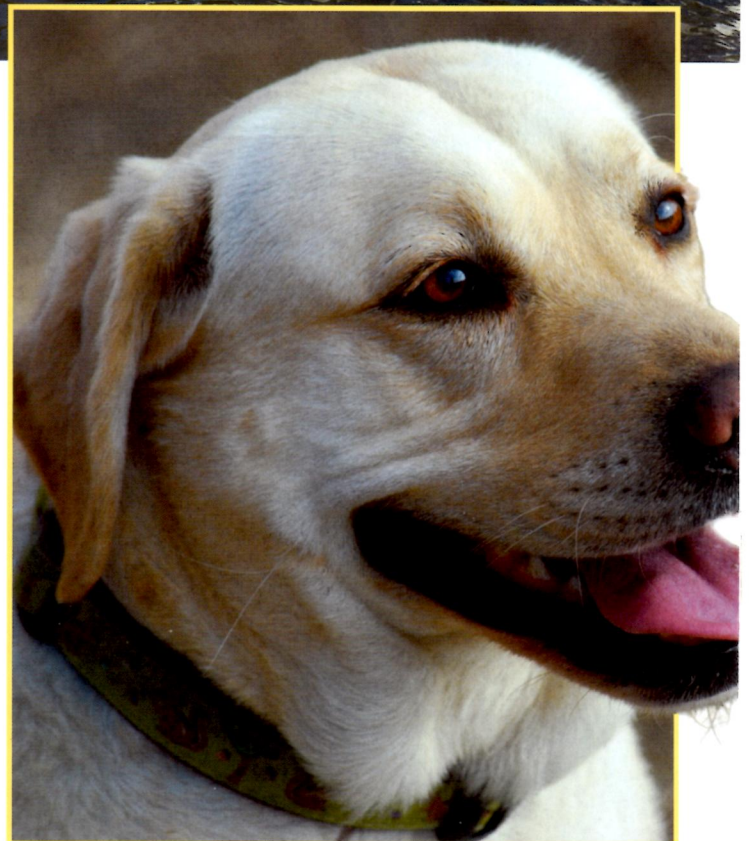
Veterinarians share health advances that offer hope for Lab lovers

by Jen Reeder

Swimming is a terrific low-impact exercise for Labs, especially those having cruciate ligament problems, as a way to manage their weight.

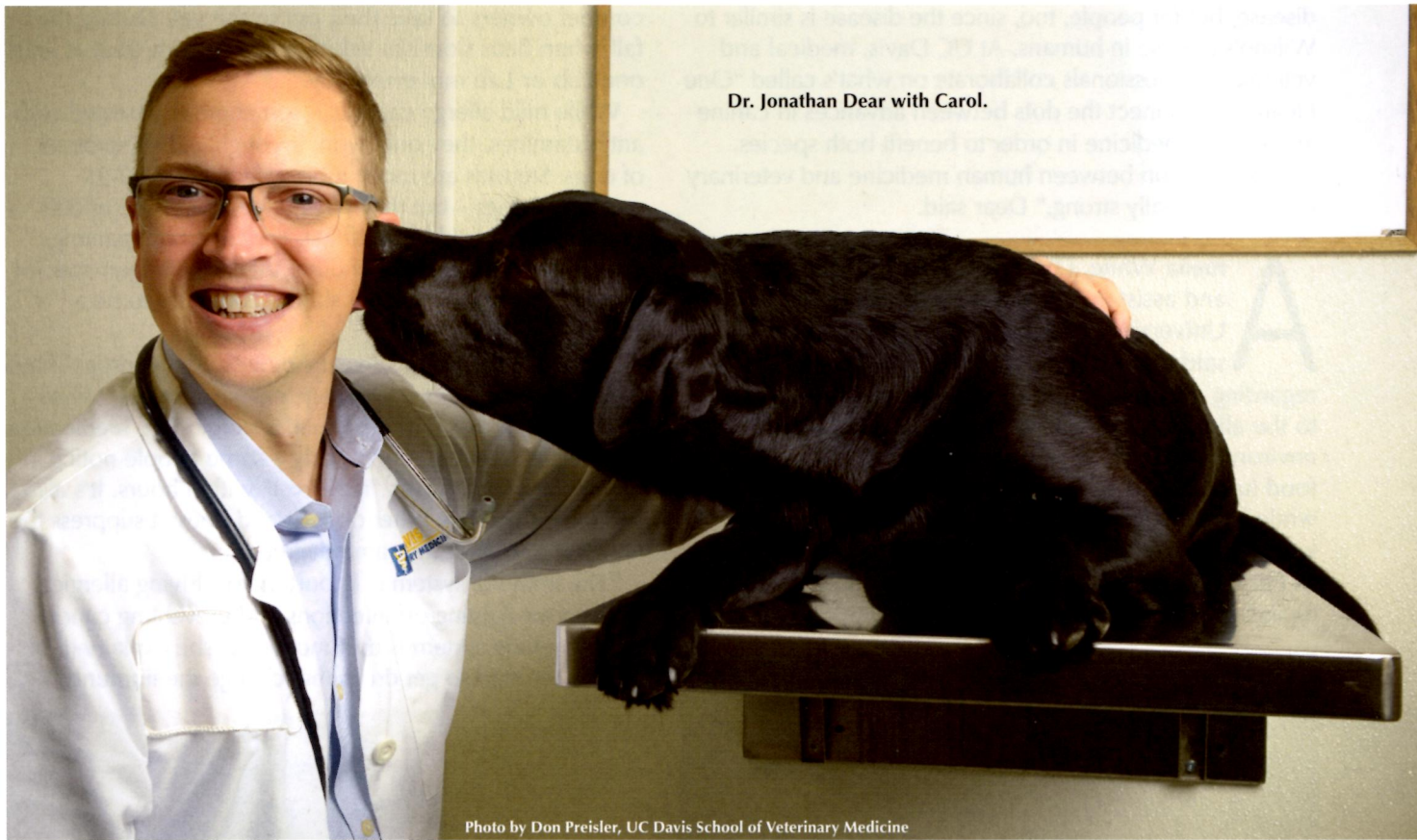
Veterinarian Kelly Diehl knows firsthand what it's like to love a Lab – and to want to do whatever it takes to keep a beloved pet happy and healthy. Her yellow Lab, Denali, needed to have her shoulder reconstructed when she was seven years old, and later underwent stem cell therapy to treat her chronic cruciate ligament problems when there were few studies about the effectiveness of the treatment. “I needed help from my colleagues. I had to lean on them for advice,” she said. “My Labradors are part of our family. We want them around for a long time.”

So Diehl, DVM, MS, DACVIM (Small Animal Internal Medicine), and scientific communications advisor at the Morris Animal Foundation – a nonprofit that funds research to protect, treat, and cure animals – has a strong personal and professional interest in veterinary studies that can help Labs.



Dr Kelly Diehl's Lab Emily.

Photo by Charlie MacKean



Dr. Jonathan Dear with Carol.

Photo by Don Preisler, UC Davis School of Veterinary Medicine

Since cruciate ligament ruptures are common in active Labs, she noted that recent studies have shown the best surgery to help restore mobility function is *tibial plateau leveling osteotomy* (TPLO), and current research is exploring the link between the timing of spay/neutering and orthopedic issues. Keeping a Lab's weight in a normal range also helps avoid stressing the joints, though it requires vigilance. A 2016 study showed many Labs are missing all or part of a gene called POMC that regulates appetite, which is why they can seem hungry all the time, ballooning their weight and making them more likely to have orthopedic issues.

Diehl's newest yellow Lab, Emily, is five years old and hasn't shown signs of orthopedic issues thanks to weight control – just one of many reasons why she's optimistic about the future.

"Because of technology, we are getting into an explosive golden age of research for animals," she said. "I can't tell you how excited we are here because we see these fantastic studies coming through that are going to open some new doors into animal diseases and preventions, and improve understanding at a molecular genetic level how diseases develop. I think it's just going to be great for our animals."

Jonathan Dear, DVM, DACVIM, assistant professor of Clinical Internal Medicine at University of California-Davis School of Veterinary Medicine, focuses much of his research on genetics. He noted that while

many popular dogs are negatively affected by inbreeding, Labs are more "outbred" than most because they have so many different roles in society for which they've been bred – conformation show dogs, field trials, and countless services.

Despite this genetic diversity, Labs are still predisposed to some health issues. For example, Dear said Labs are the "poster children" for copper storage disease, in which the mineral accumulates to dangerous levels and poisons the liver. But a study in May 2017 from Utrecht University in the Netherlands led to the development of a blood test that offers hope for early detection – it tests for a gene that might influence the risk of copper storage disease. "Your DNA is not necessarily a fortune teller, it just tells you that you might be at risk of developing something," he clarified.

If copper storage disease is detected early, veterinary teams can work with owners to manage it. Dear treated a black Lab named, Carol who was diagnosed with copper storage disease when she was just six months old. By changing her diet, medications, and exposure to copper over the past year, the disease hasn't advanced, and Carol's copper levels have even dropped back into normal ranges.

"She's doing really well," he said. "I can't change her DNA – she's going to have this – but all these things we can change help her live as happy and as long a life as possible."

Work with dogs like Carol has implications not just for helping other Labs at risk of developing copper storage

disease, but for people, too, since the disease is similar to Wilson's disease in humans. At UC Davis, medical and veterinary professionals collaborate on what's called "One Health" to connect the dots between advances in canine and human medicine in order to benefit both species. "The interaction between human medicine and veterinary medicine is really strong," Dear said.

Amelia White, DVM, MS, DACVD (dermatology), and assistant clinical professor at Auburn University College of Veterinary Medicine, said there is good news for Lab lovers regarding allergies. As a breed, Labs are predisposed to the allergies that can affect all dogs: flea-bites; environmental (with culprits like pollen or dust); and food (usually to a protein source like chicken). She said while humans typically respond to seasonal allergies with runny eyes and noses, dogs tend to manifest theirs as dermatitis, with itchy skin and ears. When this leads to skin infections, symptoms like foul odor and fur loss

compel owners to take their pet to the vet. During the fall when fleas flourish, White and her team treat at least one Lab or Lab mix every day.

While mild allergy cases can sometimes be treated with antihistamines, they only work in roughly 20-30 percent of dogs. Steroids are much more effective for 90-95 percent of dogs – but they have undesirable side effects such as increased hunger, thirst, and urination; panting; weight gain; and "a slew of other things." Allergen-specific immunotherapy, or "allergy shots," continues to be a mainstay of therapy.

Luckily, in the past few years, new "designer drugs" have been developed to help manage canine allergies. White has found success with Apoquel, a steroid-free medication that begins working very quickly – some people notice a difference in their dog's "itch level" within hours. It's also less expensive than other options and doesn't suppress the immune system to the same degree.

"The immune system is important for driving allergies, but also for fighting off infections and preventing cancer if the immune system is dysfunctional," she explained. "When we start to get drugs that change the immune

For More Information...

Morris Animal Foundation:
www.morrisanimalfoundation.org

U.C. Davis School of Veterinary Medicine:
www.vetmed.ucdavis.edu/index.cfm

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Dr. Robert Lofton.

Just Labs

Photo by Mitch Emmons, Auburn College of Veterinary Medicine



Photo by Mitch Emmons, Auburn College of Veterinary Medicine

Dr. Amelia White with patient Ivy Jane

response, we also can be influencing other things that the immune system does.”

As a result, there’s another new drug called Cytopoint that is a “canine monoclonal antibody.” Essentially, it only targets one thing: an inflammatory protein called Interleukin-31. By blocking this protein, it blocks the itch sensation. It doesn’t interfere with a lot of other drugs or diseases, and there’s no age limitation for use – the injection can be administered to very young and very old dogs alike. It can also be given to dogs with cancer who are undergoing chemotherapy, which is unusual.

“It’s really nice to have so many options because none of the options are a hundred percent effective. As a veterinary dermatologist, I need to have more than one option,” she said. “I improve my chances of helping a pet get better...to get them to an improved, reasonable, tolerable itch level so that they have a good quality of life at home.”

Robert Lofton, DVM, assistant clinical professor at Auburn University College of Veterinary Medicine, said another cause for optimism involves hip dysplasia, a laxity in the hip joint that leads to degenerative joint disease (a.k.a. osteoarthritis) as dogs age.


For the past 50 years, the established X-ray process hasn’t helped eliminate the condition from dogs and

couldn’t be done until they were two years old, which meant dogs could be diagnosed with hip dysplasia after being bred, Lofton said. But a different positioning and radiographic procedure called PennHIP can be performed on dogs as young as four months old.

“The PennHIP procedure, in my opinion, is a much better approach for assessing the hips of a Labrador – or any large breed, for that matter,” Lofton said. “If we have a dog that has joint laxity but we control his weight and we don’t put him through strenuous impact exercise, we can keep his hips in better condition.”

Lofton said pets are living longer today than when he started in practice 45 years ago because of advances in veterinary medicine and the high standards of care established by the American Animal Hospital Association. But one of his fears is that veterinarians’ ability to provide top-notch diagnostics, treatment, and healthcare will surpass the ability of clients to pay for it.

He strongly recommends investing in pet insurance for our Labs while they’re young and healthy to be able to provide the best possible care throughout their lives. When there are medical advances that can save a dog or improve quality of life, it’s a given that veterinarians want to utilize them in order to help their patients.

“I would just say thank you to pet owners who really take good care of their pets,” he said. “It’s a pleasure for us as veterinarians to have the opportunity to care for these pets.” 

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