



AMERICAN KENNEL CLUB®  
CANINE HEALTH  
FOUNDATION®

# Discoveries

Summer 2025 | Vol. 118



## ***The Future is Bright for Active Dogs***

Canine Sports Medicine  
Residency Launches this July.

## ***When Play Turns to Pain***

Understanding Cruciate Ligament  
Injuries in Dogs.

## ***Join CHAMPS!***

A New Way to Make a Difference for  
Dogs from Anywhere in the Country.

**Advancing the health of all dogs  
through knowledge and discovery.**



## Message from the CEO

Dear Friends,

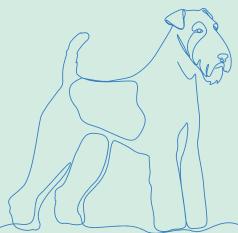
As we reach the halfway point of our 30th anniversary year, I'm inspired by both the progress we've made and the momentum we're building together. Thanks to your generosity, we are building the future our dogs deserve.

This summer, we're proud to mark a transformative milestone for canine health: the first CHF-supported veterinary residents are beginning their training in Canine Sports Medicine and Rehabilitation. Investing in the next generation of veterinary specialists reflects CHF's leadership in shaping the future of expert care so dogs can live healthier, more active lives.

We're also preparing to gather with our partners, supporters, and scientific community at the biennial National Parent Club Canine Health Conference. This is a special opportunity to connect over the advances you help make possible.

As you explore this issue of Discoveries, I hope you are proud of the work we're doing together. From the scientific updates to the dedicated people who make discoveries for our dogs possible, each story reflects the incredible impact of your support.

On behalf of the entire CHF team, thank you for your continued trust and commitment. We're honored to have your support as we move confidently through this milestone year to create a healthier tomorrow for the dogs who inspire us every day.



With heartfelt gratitude,  
**Stephanie Montgomery**

DVM, PhD, DACV

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### Where to Find Us:

Columbia Terrier Association of Maryland  
Frederick, MD July 24

National Parent Club Canine Health Conference  
Durham, NC Aug 7-9

Tarheel Cluster  
Raleigh, NC Aug 29-Sep 1

Morris & Essex Kennel Club  
Colonial Park, NJ Oct 1

Cover Photo: Deacon, Owner: Beth Grooms.



# CHF Launches Groundbreaking Canine Sports Medicine Residency Program

**By Trent Brown**

The AKC Canine Health Foundation (CHF) is thrilled to officially launch the Canine Sports Medicine & Rehabilitation Residency Program, a bold new initiative developed in 2024 through a strategic collaboration with the American Kennel Club.

Recognizing the growing demand for veterinary specialists to care for active and athletic dogs, AKC and CHF came together last year to support a program with a singular purpose: to train more experts in the emerging field of Canine Sports Medicine and Rehabilitation. After months of planning and careful selection of schools, the program officially launches this July 2025 with its first cohort of residents.

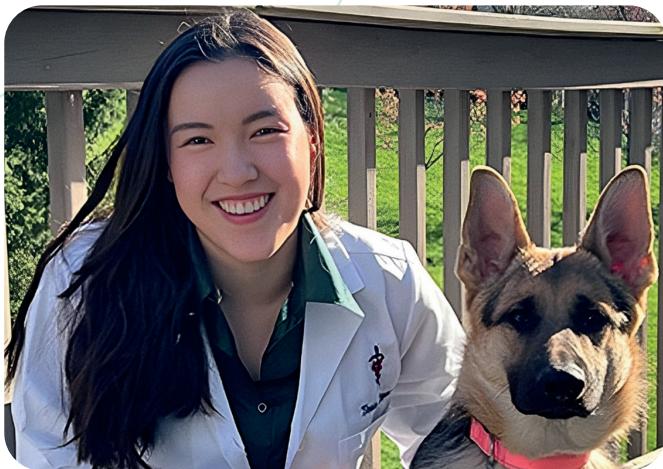
The University of Pennsylvania School of Veterinary Medicine (Penn Vet) and Colorado State University's College of Veterinary Medicine and Biomedical Sciences were the first two institutions selected to receive funding for the program's inaugural

residents. These institutions were chosen through a competitive application process to successfully train board-eligible clinicians and support research that advances evidence-based care.

"It almost brings tears to my eyes, because without your support, we couldn't do it," said Dr. Cynthia Otto, Executive Director of the Working Dog Center at Penn Vet and mentor to inaugural resident Dr. Tesa Stone. "It's a new specialty, especially in the canine world, and we're going to keep dogs moving longer and better."

We're excited to introduce the inaugural residents and share how this new program is shaping the future of care for performance and working dogs across the country.

**Each school successfully matched with an outstanding resident, and we're proud to introduce Dr. Tesa Stone & Dr. Alexis Heffernan as our inaugural Residents in Canine Sports Medicine & Rehabilitation, funded by the AKC Canine Health Foundation.**



Dr. Tesa Stone earned a Bachelor of Science with Distinction in Pre-Veterinary Medicine and Animal Biosciences, with a minor in Equine Science, from the University of Delaware, and her roots in veterinary medicine run even deeper. Her grandmother and aunt are both veterinarians, and her first job was in her grandmother's animal hospital. And when she wasn't at the animal hospital, she was surrounded by the Scottish Terriers that her grandmother bred.

After college, Dr. Stone interned at the Penn Vet Working Dog Center. This was a formative experience that, in her words, "Really solidified what I wanted to do," combining her passions for medicine, research, and athletic performance in dogs. She went on to earn a veterinary degree (VMD) from the University of Pennsylvania and will begin a residency in Canine Sports Medicine and Rehabilitation at Penn Vet in July 2025 under the mentorship of Dr. Cynthia Otto.

Dr. Alexis Heffernan brings both scientific rigor and athletic experience to her residency. A former varsity soccer player at Truman State University, she earned a B.S. before completing a Master's in Microbiology and Immunology and her DVM at Colorado State University (CSU).

Now finishing an internship at Auburn University, Dr. Heffernan shared that while she'd always been interested in veterinary science, it was hands-on clinical work after her Master's that solidified her path. "I loved working with clients and building relationships," she said. "It changed how I connected with patients."

This summer, she begins a three-year residency in Canine Sports Medicine and Rehabilitation

at CSU under Dr. Felix Duerr, a leader in canine orthopedics.

Dr. Heffernan, who shares her life with Obi, a spirited 7-year-old shepherd-lab mix, hopes to either open a private practice with an orthopedic focus or stay in academia. She's also passionate about expanding awareness: "A lot of people don't even know small animal sports medicine exists – I'm excited to change that."

These exceptional residents represent the future of canine sports medicine, and we're proud to be part of their journey.



## Backing the Dogs Who Go the Distance

This groundbreaking program would not be possible without the vision and generosity of our partners. Alongside the American Kennel Club, the AKC Canine Health Foundation extends heartfelt thanks to the Golden Retriever Foundation, Portuguese Water Dog Foundation, and Border Terrier Club of America for their sponsorship and shared commitment to advancing canine health through sports medicine and rehabilitation. Together, we are investing in the future – ensuring that active dogs receive the specialized care they deserve from a new generation of veterinary leaders.

# "An Absolute Game Changer"

Meet Three Supporters Who Helped Launch a Landmark Sports Medicine Program

By Trent Brown

As the AKC Canine Health Foundation launches its first Sports Medicine & Rehabilitation residents, we recognize three advocates who helped make it possible. Linda Johnson, Chris Sweetwood, and John Russell brought expertise in field trials, working dogs, and performance events – key in building support for this groundbreaking program. **Their passion and insight helped turn a bold idea into reality.**



## Linda Johnson

Linda Johnson is a respected figure in the Golden Retriever community, serving as Treasurer of the Golden Retriever Foundation and a longtime CHF collaborator. She is a passionate advocate for the health and performance of athletic dogs.

An experienced field trial and hunt test judge who competes with her own dogs, Linda was an early champion of CHF's vision to create a Canine Sports Medicine program.

"Sports medicine was very important to me and many others," she said. "It helps us better care for our dogs and recognize issues before they become visible, like a limp or a drop in performance."

Linda is a Life Member of the Golden Retriever Club of America, Treasurer of the Northwest Retriever Trial Club, former Treasurer of the Evergreen Golden Retriever Club, and serves on several boards for canine health and performance organizations.



## Chris Sweetwood

For Chris Sweetwood, sports medicine is more than a specialty – it's a passion woven into his work with dogs. From the start, he strongly supported CHF's Sports Medicine and Rehabilitation Residency Program, recognizing its potential to improve care for working and athletic dogs.

An avid hunter, Chris is an AKC Pointing Breed Hunting Test judge and longtime participant in Conformation, Obedience, Rally, Hunting Tests, and Field Trials. He also founded the AKC Reunite Adopt a K-9 Cop Matching Grant Program and co-chairs the AKC Detection Dog Task Force.

"These dogs have tough jobs," he said. "They train constantly and must stay in shape. Without vets doing this work, injuries increase and careers are cut short." "To have CHF involved in this, to me, is an absolute game changer."

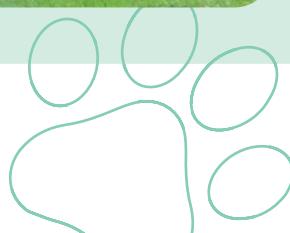


## John Russell

John Russell, former CHF Board member and AKC Lifetime Achievement Award recipient, has spent decades breeding, training, and competing with Labrador Retrievers in AKC field trials. His commitment to the sport and canine health helped shape CHF's support of sports medicine.

His journey began under Marshall "Pete" Simods, a CHF founding figure who introduced him to field trials and Labradors. "I was fortunate to be exposed to that," John recalled. "It wasn't hard to see the importance of keeping these dogs healthy."

Since 1975, John has judged and competed in field trials. He and his wife, Martha, train their dogs and have produced multiple National Amateur Field Champions – including the first fully amateur-trained winner in over 30 years, in 2014. "If you truly love the sport of purebred dogs," he said, "it's an easy step to supporting the Canine Health Foundation."





# When Play Turns to Pain: Understanding Cruciate Ligament Injuries in Dogs

And how researchers are working to prevent them before they happen.

By **Dr. Stephanie Montgomery**

## A Common Injury With a Big Impact

If you've ever torn your ACL or watched someone go through it, you know how life-changing a knee injury can be. From elite athletes to weekend hikers, a single misstep can mean surgery, rehab, and months on the sidelines. But it's not just humans who tear ligaments - dogs do too.

In both people and dogs, the knee relies on several ligaments for stability. One of the most critical is the anterior cruciate ligament (ACL in humans; cranial cruciate ligament, or CCL, in dogs). These tough bands of tissue anchor bones and keep joints steady when running, jumping, and twisting.



*Cruciate ligament rupture is one of the most common orthopedic injuries in dogs, and while there are early screening tools and structural clues, there's still no reliable way to know which dogs will be affected.*

### **From Diagnosis to Decision - Fast**

It happens in an instant. One moment you're tossing a ball in the yard, the next you're facing a major decision about orthopedic surgery. If your dog is diagnosed with a cruciate rupture, surgery is often recommended, especially for active or overweight dogs. Repairing the damage can restore mobility, relieve pain, and slow the onset of osteoarthritis, a common long-term consequence of the injury.

Which leads to the question: Was there any way to see this coming?

### **Genetics at the Root**

Science is starting to address this question. Cruciate rupture isn't only bad luck - it's also a highly heritable polygenic disease. This means there is increased risk driven by the combined effect of many gene variants, along with environmental factors like weight, activity level, and even terrain the dog runs on.

For years, breeders and researchers have called for a genetic test to help identify at-risk dogs early. Until now, that tool didn't exist.

That's what Dr. Peter Muir, a veterinary researcher at the University of Wisconsin, aims to change with support from the AKC Canine Health Foundation (CHF).

### **A Vision for Predictive Canine Care**

Dr. Muir initially confirmed that cruciate rupture is influenced by multiple gene variants using genome-wide association studies (GWAS). His team then worked to combine the identified genetic markers into a **predictive risk score**, which could inform breeding decisions and identify at-risk dogs before an injury occurs.

Once widely available, this screening test could help breeders make informed choices, and enable veterinarians and pet owners to monitor disease for dogs at higher risk of cruciate disease.

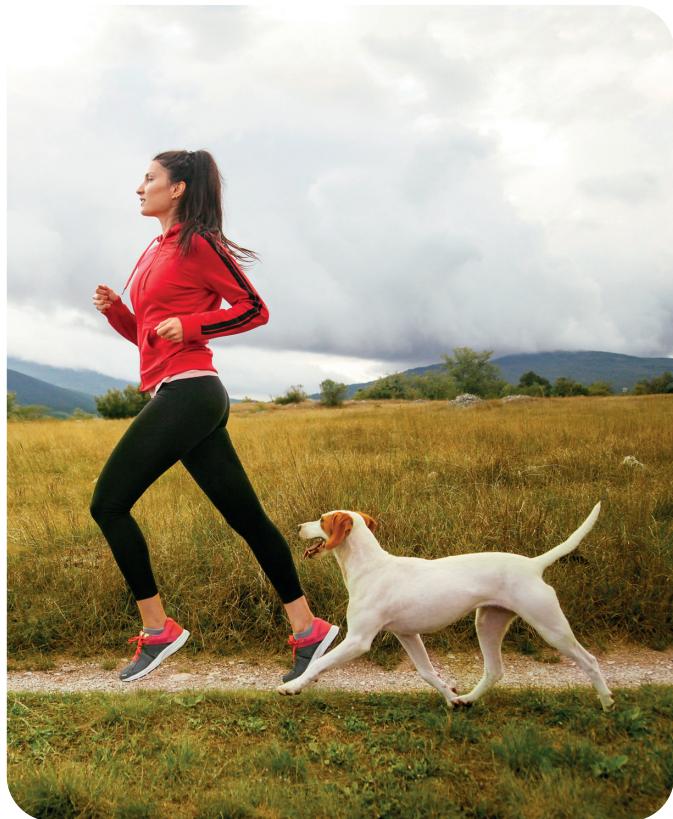
Labrador Retrievers were the initial focus of Dr. Muir's work, which is now expanding to other breeds, including Newfoundlands, Rottweilers, and Boxers, with the goal of creating **breed-specific risk profiles**.

Currently, the team is partnering with the Newfoundland Club of America to identify a dog suitable to serve as a reference genome for that breed, a crucial step in building this groundbreaking genetic testing.

### **Running Toward a Future of Prevention**

Cruciate ligament rupture may be common, but it doesn't have to be unpredictable. Thanks to cutting-edge research and the collaboration of veterinarians, breed clubs, dedicated owners, and CHF, we're getting closer to a future where these injuries can be anticipated and even prevented.

Together, we're giving every dog the chance to run, jump, and play without pain.



# Welcome to the New CHF Website!

## Redesigned. Reimagined. Ready for You.

We're thrilled to introduce our brand-new website – redesigned from the ground up to bring you closer to the science, stories, and impact that shape the AKC Canine Health Foundation.

With a bold new look and smarter, more intuitive features, it's now easier than ever to explore the breakthroughs you make possible and see how your support helps dogs live longer, healthier lives.

Here's what's new:

- Live Research Updates – Follow newly funded studies and scientific progress from the homepage.
- Smarter Search, Deeper Insights – Explore our new Knowledge Hub for easy access to the topics and tools that matter most to you.

- More Ways to Make a Difference – From tribute donations to local events, get involved through streamlined ways that let you see your impact.
- Simplified Investigator Tools – Navigate funding opportunities faster with clearer guidance and an intuitive layout.

Built with the same care, rigor, and purpose that fuel our research, this site was made for you – to learn, connect, and be inspired.

Take a look around and see how, together, we're turning science into solutions.

**Visit the new website now: [akcchf.org](http://akcchf.org)**

## Active Grant Highlights

### **03315: Canine Platelet Lysate Against Biofilm Formation**

**Principal Investigator:** Maria Naskou, DVM, PhD, DACVP; Auburn University College of Veterinary Medicine. **Total Grant Amount:** \$71,199; **Grant Period:** 6/1/2025 - 5/31/2027

Any dog, whether they're working, sporting, or just adventurous, is susceptible to wounds that can become infected and heal slowly. This study investigates whether a new treatment called platelet lysate, made from a dog's own blood, can break through bacterial biofilms that block healing and resist antibiotics. By testing different formulations, researchers aim to boost recovery in non-healing wounds so dogs can stay healthy and on the move.

### **03411-A: Prognostic Utility of Preoperative F-wave Measurements in Paraplegic Dogs with Absent Pain Perception due to Intervertebral Disc Extrusion**

**Principal Investigator:** Go Togawa, DVM, MS, PhD, DACVIM (Neurology); Virginia-Maryland College of Veterinary Medicine. **Total Grant Amount:** \$20,654; **Grant Period:** 6/1/2025 - 5/31/2027

This study explores whether a special nerve test called an F-wave performed before surgery can predict if dogs with severe spinal cord injuries from slipped discs will walk again. The researchers are

focusing on breeds prone to this injury and hope it can guide treatment decisions. If successful, it could provide results for vets and families to make more informed decisions about surgery or other care, especially in difficult cases.

### **03391: Water-based Cooling Strategies for Dogs Experiencing Exercise-induced Hyperthermia**

**Principal Investigator:** Cynthia Otto, DVM, PhD, DACVECC, DACVSMR; Penn Vet Working Dog Center, University of Pennsylvania.

**Total Grant Amount:** \$90,951; **Grant Period:** 5/1/2025 - 4/30/2026

Active and working dogs can quickly overheat during intense exercise, making fast, effective cooling essential. This study compares various water-based cooling methods, including standing in water, drinking cool water, water-soaked towels, and voluntary head immersion, to see which works best in the first 10 minutes after exertion. The goal is to find the safest, easiest way to treat heat stress in dogs on the move and keep them healthy, high-performing, and protected in the field.

See our full research grants directory at [akcchf.org/research](http://akcchf.org/research).



# CHAMPS: A New Way to Make a Difference for Dogs

By Paige Hofstad



Love dogs? Ready to make a real impact in your community? Join CHAMPS – the AKC Canine Health Foundation's exciting new grassroots program uniting dog lovers across the country who are passionate about creating a healthier future for all dogs.

CHAMPS (Canine Health Ambassadors Making Progress through Science) empowers volunteers to take the lead in their communities - organizing dog walks, coffee meetups, and local events that spark conversation, build connections, and raise support for life-changing canine health research.

Whether you're a lifelong dog enthusiast or simply want to be part of a mission that matters, CHAMPS is your chance to connect, take action, and champion a better future for all dogs.

## Ready to get involved?

Reach out to Paige Hofstad at [paige@akcchf.org](mailto:paige@akcchf.org) and become part of a fun, engaged, and inspiring community committed to canine health and discovery.

Let's walk, talk, and work together – for the love of dogs.



## Donor Spotlight

# AKC & CHF: Celebrating 30 Years of Shared Purpose

By Andrea Fiumefreddo

As we celebrate three decades of partnership with the American Kennel Club, one truth stands out: our shared commitment to advancing canine health. Since AKC's founding investment launched the AKC Canine Health Foundation (CHF) in 1995, our collaboration has been driven by a deep belief in what science can do for dogs.

From seed funding and office space to communications expertise and strategic introductions, the AKC's support has helped open doors and shape our growth. Their financial investment, totaling over \$35 million, shows how deeply they value better health for dogs.

That commitment is embodied in leaders like Dr. J. Charles Garvin, longtime AKC Director and eight-year CHF Board Chair. Alongside others who serve both organizations, he helps ensure that each continues to thrive while elevating the other.

One powerful result of this synergy is the AKC/CHF Canine Sports Medicine & Rehabilitation

Residency Program. Born from a CHF vision and backed by unanimous AKC Board support, this bold new initiative represents an annual investment in the future of veterinary care for athletic dogs, with the cost to train a single resident totaling \$300,000.

Dr. Garvin notes, "The partnership has been markedly beneficial as AKC's world of competitive dogs now includes many sports that demand peak athletic performance. As dogs compete longer and harder, their ongoing health must be supported. This residency will train specialists to optimize performance and treat injuries effectively."

Whether serving agility dogs, working dogs, or pets recovering from surgery, these specialists will help dogs stay active, heal faster, and live longer.

In AKC, CHF has more than a founding partner – we have a shared mission. Together, we're investing not just in science, but in the promise that the best days with our dogs are still to come. It's a partnership grounded in shared purpose and, appropriately, measured in dog years.



# Protecting Dogs from Dangerous Tick-Borne Diseases

New research is uncovering better ways to detect, prevent, and defeat these stealthy threats - long past summer.

**By Dr. Stephanie Montgomery**

Summer brings sunshine, outdoor fun – and ticks. These tiny parasites feed on blood and can transmit serious diseases to dogs and humans alike.

At the AKC Canine Health Foundation (CHF), we're funding vital research to detect, prevent, and treat tick-borne illness in dogs.

At the University of Tennessee, Dr. Sreekumari Rajeev is studying *Ehrlichia canis* and *Anaplasma platys* – two pathogens that cause serious, chronic disease in dogs. Her team is using cutting-edge reverse vaccinology to identify proteins shared by both pathogens that could lead to a single vaccine to protect against them.

At North Carolina State University, Dr. Barbara Quroollo is investigating two newly discovered

strains of *Rickettsia* – a potentially dangerous bacteria related to Rocky Mountain Spotted Fever. Her team developed advanced diagnostic tools and is sequencing their genomes to better understand and the threat and stop it in its tracks. Learn more and donate at [akcchf.org](http://akcchf.org) – because a tick shouldn't steal your dog's health.



**– Did you know? –**  
**Tick-borne illnesses affect an estimated 300,000 dogs in the U.S. each year – and cases are on the rise.**

## 5 Tick-Borne Diseases Every Dog Owner Should Know

Tick-borne illnesses can range from mild to life-threatening, and some can affect both dogs and humans. Early detection and prevention are key. Here are five important ones:

### 1. Ehrlichiosis

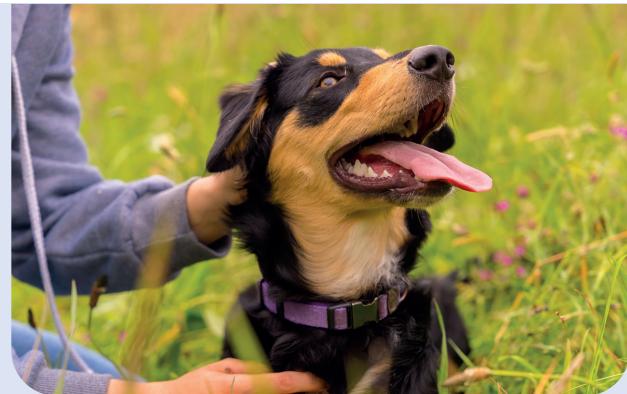
Caused by *Ehrlichia* species, a common and dangerous tick-borne illness that affects blood clotting. Look for fever, appetite loss, nosebleeds, or bruising.

### 2. Anaplasmosis

Transmitted by black-legged and western black-legged ticks and caused by *Anaplasma* species. Signs are stiff joints, vomiting, and fever, and bleeding disorders are possible.

### 3. Lyme Disease

Caused by *Borrelia burgdorferi* and spread by deer ticks. Signs include fever, joint pain, and lethargy, which may not appear for months. Can lead to kidney failure if untreated.



### 4. Babesiosis

Involves *Babesia* parasites spread by infected ticks. Causes anemia, jaundice, and organ damage. Look for pale gums, weakness, vomiting, or dark urine.

### 5. Rocky Mountain Spotted Fever

Caused by *Rickettsia rickettsii*, spread by several tick species. Signs may include fever, swollen lymph nodes, joint pain, skin lesions, and sometimes neurological issues.

**Talk to your vet about a plan to protect your dog with year-round tick prevention.**

## Top Charity Honors Reaffirm CHF's Commitment to Canine Health

The AKC Canine Health Foundation has once again earned the highest accolades from two leading nonprofit evaluators, earning its seventh consecutive Platinum Seal of Transparency from Candid and a perfect Four-Star rating from Charity Navigator.

These distinctions recognize CHF's strong financial stewardship, governance, and transparency. "We

are honored by this recognition," said CEO Dr. Stephanie Montgomery. "It reflects the trust of our donors and our commitment to using every gift to advance our mission."

With more than 160 active research grants totaling \$13 million, CHF continues to lead in funding breakthroughs that help all dogs live longer, healthier lives.

## — Upcoming Webinars —

Your front row seat to the future of dog health. Explore cutting-edge canine health research with experts in every webinar.

### July

Beyond the Stopwatch: Assessing Exertion in Agility Dogs  
July 29 @ 7 pm ET

### August

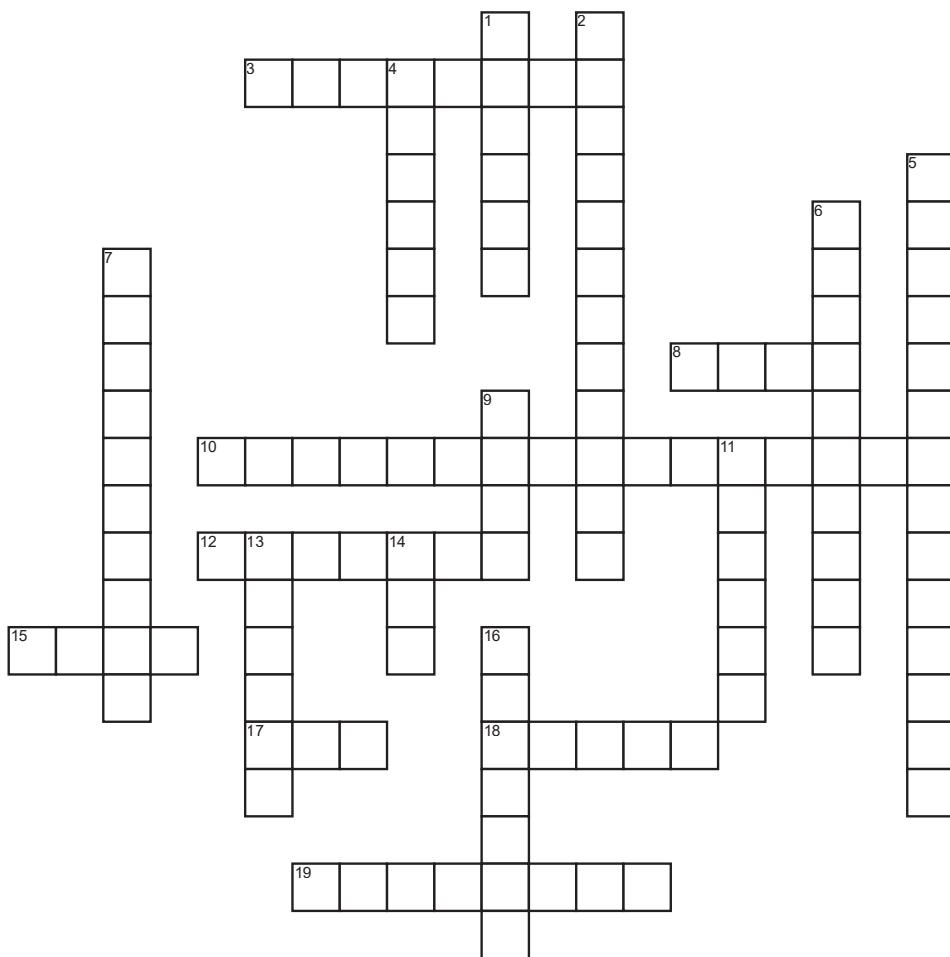
New Therapies for Degenerative Myelopathy  
August 26 @ 7 pm ET

### September

Novel Diagnostics for Canine Hookworm Resistance  
September 23 @ 7 pm ET

For more information and to register, visit [akcchf.org/webinars](http://akcchf.org/webinars).

# Woof Words



## Across

3. Canine ligament often ruptured
8. Tiny parasite that spreads disease
10. Top organization for evaluating non-profit efficacy
12. University studying *Rickettsia* strains
15. Scientist leading cruciate ligament research
17. CHF-supported research tool using many genes
18. CHF partners with clubs representing each \_\_\_ to study disease risks and develop better treatments
19. Group classification for active, energetic breeds like Retrievers and Setters, originally bred to assist hunters

## Down

1. CHF-financed researcher studying *Ehrlichia canis*
2. Dog breed used for reference genome
4. New CHF Program launched to engage dog lovers in local communities
5. Long-term condition often following joint injury
6. Tick-borne bacteria being genetically sequenced
7. Veterinary field studying joint injuries and movement
9. Common tick-borne disease in dogs
11. The full set of DNA being sequenced from a Newfoundland to help study cruciate ligament disease
13. New CHF Community Engagement Program
14. Co-creator of the Canine Sports Medicine & Rehabilitation Residency Program
16. CHF's new resource for sharing information

## How to Help

You can make a direct impact by donating to the AKC Canine Health Foundation. Your support fuels critical research that leads to better diagnostics, treatments, and hope for all dogs everywhere. Every gift brings us one step closer to saving lives.

Please donate today at <https://www.akcchf.org/fueldogsinmotion>.



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