

TIME	SESSION/TITLE	SPEAKER
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All Scientific Sessions are held in the Grand Ballroom
All Breakfasts and Breaks are held in the Bur Oak Foyer

WEDNESDAY, SEPTEMBER 3

4:00-8:00 PM Registration / Check-in – Sponsored by 

THURSDAY, SEPTEMBER 4

Thursday Morning Sessions are Sponsored by 

7:00 AM Continental Breakfast

7:45 Welcome / Introductions / Announcements *Dr. Jenni Rizzo*

8:10-9:10 **Keynote Address:** The history of *Wolbachia* and heartworm *Prof. Laura Kramer*

9:10-10:10 AM **Session 1: Anesthesia**

9:10-10:10 Anesthesia for dogs with heartworm disease *Dr. Jane Quandt*

10:10-10:30 Break

10:30 AM-12:20 PM **Session 2: Doxycycline and *Wolbachia***

10:30-10:45 Efficacy of reduced doxycycline dosage on inflammatory and stress responses in dogs with heartworm disease *Dr. Elena Carretón*

10:45-11:00 Effect of doxycycline on *Wolbachia* levels in *Dirofilaria immitis* worms from five canine heartworm cases: Immunohistochemical staining analysis *Dr. Elena Carretón*

11:00-11:30 Effects of doxycycline dose rate and pre-adulticide wait period on heartworm-associated pathology, adult worm mass, liver enzymes, and *Wolbachia* levels *Dr. Tom Nelson*

11:30-11:45 A peek at the results of the Brazil doxycycline-*Wolbachia* study *Dr. Doug Carithers*

11:45-12:00 Blocking of *Dirofilaria immitis* transmission by treatment of heartworm microfilaremic dogs with doxycycline *Dr. John McCall*

12:00-12:20 Speaker Panel Q&A

12:30-1:40 PM **LUNCH - Noontime Knowledge**
(Preregistration required; please see your lunch ticket for assigned room)

Heartworm disease management for shelter populations *Drs. Angele Bice and Uri Donnett*

Lies and fake news: The truth about feline heartworm disease *Drs. Tom Nelson and Mark Cousins*

TIME	SESSION/TITLE	SPEAKER
	Diagnostic conundrums: Is the animal positive or not?	<i>Drs. Lindsay Starkey and Andrew Moorhead</i>
	Presentation matters: Tools and tips for improving client acceptance of prevention and treatment recommendations	<i>Drs. Blue Brawner and Chris Duke</i>
	Twists and turns: How to handle necessary deviations in heartworm treatment	<i>Drs. Jenni Rizzo and Chris Adolph</i>
1:50–5:30 PM	Session 3: Treatment and Staging	
1:50–2:20	Systemic arterial dirofilariasis: A review	<i>Dr. Hillary Hammond</i>
2:20–2:50	Clinical approach to Class 4 heartworm disease: Caval syndrome	<i>Dr. Aliya Magee</i>
2:50–3:20	POCUS in the management of heartworm disease: When is it useful?	<i>Dr. Marisa Ames</i>
3:20–3:40	Speaker Panel Q&A	
3:40–4:10	Break – Sponsored by 	
4:10–4:25	Evaluation of NT-proBNP as a biomarker for pulmonary hypertension in heartworm-infected dogs undergoing adulticide treatment	<i>Dr. Elena Carretón</i>
4:25–4:40	Clinical evaluation of the efficacy of prolonged macrocyclic lactone treatment in dogs with heartworm disease treated in Germany	<i>Dr. Imke Maerz</i>
4:40–4:55	Clinical outcome of adulticide treatment with melarsomine in 283 heartworm-positive dogs in Germany	<i>Dr. Imke Maerz</i>
4:55–5:10	Right ventricular dysynchrony measured with echocardiography in dogs during <i>Dirofilaria immitis</i> infection	<i>Dr. Rodrigo Jose de Laval</i>
5:10–5:30	Speaker Panel Q&A	
7:00–9:00 PM	Opening Reception in the Rio Grande Ballroom – Sponsored by  Boehringer Ingelheim	

FRIDAY, SEPTEMBER 5

Friday Morning Sessions are Sponsored by  **Boehringer
Ingelheim**

7:00 AM Continental Breakfast

7:55 Announcements

TIME	SESSION/TITLE	SPEAKER
8:00–9:45 AM	Session 4: Resistance	
8:00–8:20	Current issues in heartworm chemotherapy	Prof. Timothy Geary
8:20–8:35	Investigating <i>Dirofilaria immitis</i> infecting dogs and the susceptibility/resistance to macrocyclic lactones in Missouri	Dr. Peggy Fisher
8:35–8:50	Forty years of macrocyclic lactones against <i>Dirofilaria immitis</i> in a historically endemic area: Success or emerging challenge?	Prof. Marco Genchi
8:50–9:05	Surveillance of single nucleotide polymorphisms correlated to macrocyclic lactone resistance in <i>Dirofilaria immitis</i> from client-owned dogs across the United States	Dr. Emily Curry
9:05–9:20	Updates on genotyping ML-resistant and ML-susceptible <i>Dirofilaria immitis</i> isolates and its use in athymic nude mice as a mouse model for <i>D. immitis</i> infection	Dr. Crystal Fricks
9:20–9:45	Speaker Panel Q&A	
9:45–10:15 AM	Session 5: Pathology	
9:45–10:15	Heartworm disease – An incomplete picture of its pathology	Dr. Steve Jones
10:15–10:40	Break	
10:40 AM–12:20 PM	Session 6: Cell Biology / Molecular Biology	
10:40–11:00	How old are canine heartworms? What does population genomics reveal about the origin of <i>Dirofilaria immitis</i> ?	Dr. Jan Slapeta
11:00–11:15	Host immunity and macrophage roles in the nonpermissive response of Mongolian gerbils to <i>Dirofilaria immitis</i>	Dr. Elyssa Campbell
11:15–11:30	The role of two recombinant proteins of <i>Dirofilaria immitis</i> excretory/secretory antigens in the angiogenic process on endothelial cells: Proteomic study	Dr. Rodrigo Mórchon García
11:30–11:45	Proteomic study about the effect of <i>Dirofilaria immitis</i> excretory/secretory and somatic antigens on the expression of angiogenesis-related proteins as a survival mechanism	Dr. Rodrigo Mórchon García
11:45–12:00	Tissue-targeted approaches to resolving secretory and genetic determinants of host-parasite compatibility	Dr. Mostafa Zamanian
12:00–12:20	Speaker Panel Q&A	

TIME	SESSION/TITLE	SPEAKER
12:30–1:40 PM	LUNCH - Noontime Knowledge <i>(Preregistration required; please see your lunch ticket for assigned room)</i>	
	Managing complications of severe heartworm disease	<i>Drs. Marisa Ames and Aliya Magee</i>
	A vet tech's perspective: Understanding heartworm disease	<i>Ms. Paola Dominguez-Lopez and Ms. Julie Legred</i>
	Twists and turns: How to handle necessary deviations in heartworm treatment	<i>Drs. Jenni Rizzo and Chris Adolph</i>
	Heartworm disease management for shelter populations	<i>Drs. Angele Bice and Uri Donnett</i>
	Lies and fake news: The truth about feline heartworm disease	<i>Drs. Tom Nelson and Mark Cousins</i>
	Presentation matters: Tools and tips for improving client acceptance of prevention and treatment recommendations	<i>Drs. Blue Brawner and Chris Duke</i>

This afternoon has been scheduled as free time for you to enjoy exploring Fort Worth.

SATURDAY, SEPTEMBER 6

Saturday Morning Sessions are Sponsored by  **MERCK**
Animal Health

7:00 AM

Continental Breakfast

7:55

Announcements

8:00–9:50 AM

Session 7: Shelter Medicine

8:00–8:15	Comparisons between the 2019 and 2024 American Heartworm Society and Association of Shelter Veterinarian's heartworm management practices survey	<i>Dr. Uri Donnett</i>
8:15–8:30	Comparative efficacy of injectable moxidectin and melarsomine protocols for canine heartworm treatment	<i>Dr. Tai-Li Lu</i>
8:30–8:45	A retrospective comparison of 2-dose and 3-dose melarsomine protocols in 1,248 shelter dogs with heartworm disease, in the era of macrocyclic lactones and doxycycline	<i>Dr. Linda Jacobson</i>
8:45–9:00	A randomized, controlled, prospective study of 2-dose and 3-dose melarsomine protocols in dogs with heartworm disease: Description and preliminary findings	<i>Dr. Linda Jacobson</i>
9:00–9:15	Low complication rates in 1,011 heartworm-infected shelter dogs undergoing spay-neuter surgery prior to melarsomine treatment	<i>Dr. Jessie Dyer</i>

TIME	SESSION/TITLE	SPEAKER
9:15–9:30	Clinical and anesthetic monitoring parameters of heartworm-positive dogs undergoing spay-neuter surgery	<i>Dr. Brian DiGangi</i>
9:30–9:50	Speaker Panel Q&A	
9:50–10:30	Break – Sponsored by 	
10:30–11:50 AM	Session 8: Transmission / Prevalence	
10:30–11:00	Here to stay or coming our way? Heartworm vectors in a landscape of change	<i>Dr. Lyric Bartholomay</i>
11:00–11:15	Current risk of transmission of <i>Dirofilaria</i> spp. in the United States of America and its future projection under climate change scenarios	<i>Dr. Rodrigo Morchón García</i>
11:15–11:30	Reducing heartworm prevalence through a medical quality focus	<i>Dr. Carl Winch</i>
11:30–11:50	Speaker Panel Q&A	
11:50–1:30 PM	Business Lunch – Sponsored by 	
1:30–4:30 PM	Session 9: Diagnostics	
1:30–1:45	Evaluation of diagnostic techniques for early detection of heartworm in experimentally infected dogs: Identification of <i>Dirofilaria immitis</i> -derived microRNA in the initial 28 weeks post-inoculation	<i>Dr. Daniel Felipe Barrantes Murillo</i>
1:45–2:00	Comparative performance of the novel, point-of-care Pluslife mini dock <i>Dirofilaria immitis</i> / <i>Dirofilaria repens</i> detection test with the modified Knott's test in dogs	<i>Dr. Gui Verocai</i>
2:00–2:15	Assessing the performance of trūRapid™ heartworm antigen test for early detection in experimentally infected dogs in comparison to other point-of-care tests	<i>Dr. Pabasara Weeraratne</i>
2:15–2:30	Evaluation of the trūRapid™ FOUR heartworm antigen test: A reliable point-of-care diagnostic tool for heartworm detection in dogs	<i>Dr. Chinta Lamichhane</i>
2:30–2:45	Fluorescence videography for the rapid and automated in-clinic detection of microfilariae	<i>Dr. Paul Slusarewicz</i>
2:45–3:00	Circulation of <i>Dirofilaria immitis</i> DNA in mosquitoes of the Emilia-Romagna Region (Italy): An alternative approach for completing the epidemiological data on heartworm diffusion in an endemic area	<i>Dr. Alice Vismarra</i>

PROGRAM



2025
TRIENNIAL
SYMPOSIUM

AMERICAN HEARTWORM SOCIETY™

TIME	SESSION/TITLE	SPEAKER
3:00–3:30 PM	Break	
3:30–3:45	Heat treatment augments antigen detection of <i>Dirofilaria immitis</i> in apparently healthy companion dogs (3.8% to 7.3%): Insights from a large-scale nationwide survey across the United States	<i>Dr. Daniel Felipe Barrantes Murillo</i>
3:45–4:00	Prevalence and risk factors associated with <i>Dirofilaria immitis</i> infection in dogs from Mexico including serum pre-heat treatment for the dissociation of immunocomplexes	<i>Dr. Samantha Hay-Parker</i>
4:00–4:30	Speaker Panel Q&A	
4:45–6:15 PM	Champagne Poster Reception in the Grand Ballroom Foyer Sponsored by 	
SUNDAY, SEPTEMBER 7		
	Sunday Morning Sessions are Sponsored by 	
7:00 AM	Continental Breakfast	
7:55	Announcements	
8:00–9:00 AM	Session 10: Radiology	
8:00–9:00	X-ray vision and heartworm hide-and-seek: Imaging the usual and unusual	<i>Dr. Wade Won</i>
9:00–10:30 AM	Session 11: Feline Heartworm	
9:00–9:15	Retrospective analysis of feline heartworm disease and feline asthma: A cohort study	<i>Dr. Kennedy Mwacalimba</i>
9:15–9:30	Assessing changes of feline heartworm diagnostic results among two cohorts of Florida shelter cats following updated AHS Feline Guidelines	<i>Dr. Jeff Gruntmeir</i>
9:30–10:00	AHS Feline Guidelines: What is new, and how we convey the importance of heartworm to our clients	<i>Drs. Lindsay Starkey and Mark Cousins</i>
10:00–10:30	Speaker Panel Q&A	
10:30–10:45	Break	
10:45 AM–12:50 PM	Session 12: Prevention	
10:45–11:00	Achievement of the collaborative investigation “check & protect” in Europe: Focus on heartworm disease screening in dogs and pet owner awareness	<i>Dr. Ambre Sibari</i>
11:00–11:15	Evaluating the preventative efficacy of Simparica Trio® and NexGard® Plus against a macrocyclic-lactone resistant <i>Dirofilaria immitis</i> isolate	<i>Dr. Jessica Rodriguez</i>

PROGRAM



TIME	SESSION/TITLE	SPEAKER
11:15–11:30	Prevention and long-term outcomes of naturally occurring canine heartworm infection in primary care settings	<i>Dr. Kennedy Mwacalimba</i>
11:30–11:45	Cost and prevention of canine heartworm disease in the United States	<i>Dr. Kennedy Mwacalimba</i>
11:45–12:00	Efficacy of Credelio Quattro™, a combination tablet including moxidectin, for the prevention of heartworm disease caused by <i>Dirofilaria immitis</i> in dogs in laboratory and field studies	<i>Dr. Lisa Young</i>
12:00–12:15	Safety of Credelio Quattro™ (lotilaner, moxidectin, praziquantel, pyrantel chewable tablets) in dogs infected with adult heartworms (<i>Dirofilaria immitis</i>)	<i>Dr. Kari Riggs</i>
12:15–12:30	Preventive efficacy of six monthly doses of NexGard® Plus or Simparica Trio® against a macrocyclic lactone-resistant isolate (JYD-34) of <i>Dirofilaria immitis</i> and of a single dose of NexGard® Plus against a susceptible isolate	<i>Dr. Liz Mitchell</i>
12:30–12:50	Speaker Panel Q&A	

The Symposium program will be submitted for up to 24 hours of RACE CE.

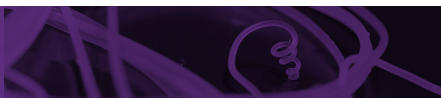
See the Poster Quick List on the next two pages!



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POSTERS ARE LOCATED IN THE GRAND BALLROOM FOYER CHAMPAGNE POSTER RECEPTION SATURDAY EVENING 4:45-6:15 PM

Posters will be on display in the Grand Ballroom Foyer from Thursday until Sunday at 1:00 PM. You can meet the poster presenters during the Poster and Champagne Reception from 4:45–6:15 PM on Saturday.

Award for Excellence Student Poster Competition

At each Triennial Symposium, AHS recognizes one outstanding student poster presenter by conferring an Award for Excellence. The presenter must be actively enrolled in an undergraduate or graduate training program or completing professional studies or a residency. Posters are judged by the AHS Scientific Review Committee based on the project study design, quality of the research, written abstract, poster design, and poster session presentation. The winner receives the award during the Poster and Champagne Reception. Badged AHS Guests are welcome at this event.

Ⓢ = Student Presenter

- 1. The American Heartworm Society and Association of Shelter Veterinarians' 2024 Shelter Heartworm Management Practices Survey**
Elizabeth Fuller | Charleston Animal Society, Charleston, SC, USA
- 2. Heartworm Management: 2024 Revision of the Association of Shelter Veterinarians' Position Statement**
Brian DiGangi | First Coast No More Homeless Pets, Jacksonville, FL, USA
- 3. Open Door Collaborative**
Brian DiGangi | First Coast No More Homeless Pets, Jacksonville, FL, USA
- 4. Access to Heartworm Care in Marginalized Communities with High Risk of Heartworm Infection**
Julie Levy | Shelter Medicine Program, University of Florida, Gainesville, FL, USA
- 5. Identification of *Dirofilaria immitis* in mosquito vectors and the shelter dog population of the Cumberland Gap region**
Stacie Williams | Ⓢ | Lincoln Memorial University, College of Veterinary Medicine, Harrogate, TN, USA
- 6. Dogs traveling internationally transport *Dirofilaria* spp. from endemic regions**
Theresa A. Quintana | Ⓢ | Auburn University, College of Veterinary Medicine, Auburn, AL, USA
- 7. Risk of atopy in owners of dogs with heartworm disease on the hyperendemic island**
Rodrigo Morchón García | University of Las Palmas de Gran Canaria and University of Salamanca, Spain
- 8. Influence of *Dirofilaria immitis* on atopic development in a hyperendemic population**
Rodrigo Morchón García | University of Las Palmas de Gran Canaria and University of Salamanca, Spain
- 9. Relationship of *Dirofilaria repens* and Dr20/22 protein with the host on the expression of angiogenesis-related proteins**
Rodrigo Morchón García | University of Las Palmas de Gran Canaria and University of Salamanca, Spain
- 10. Seroprevalence of *Dirofilaria immitis* in dogs from Albuquerque, New Mexico**
Maureen Kelly | Ⓢ | Texas A&M University, School of Veterinary Medicine and Biomedical Sciences, College Station, TX, USA
- 11. Epidemiological study of *Onchocerca lupi* in dogs from New Mexico**
Maureen Kelly | Ⓢ | Texas A&M University, School of Veterinary Medicine and Biomedical Sciences, College Station, TX, USA

12. **Optimized specificity of a probe-based real-time PCR for the detection of *Dirofilaria immitis* in dogs**
Maureen Kelly |  | Texas A&M University, School of Veterinary Medicine and Biomedical Sciences, College Station, TX, USA
13. ***Dirofilaria immitis* in stray dogs submitted to an animal rehabilitation center in Türkiye**
Beyzanur Arslan |  | Bursa Uludağ University, Türkiye
14. **The NCVP Grant Program: Impacting parasitology research since 2013**
Lindsay Starkey | National Center for Veterinary Parasitology, Oklahoma State University, Stillwater, OK, USA
15. **Comparative performance analysis of different microfilaria testing methods for *Dirofilaria immitis* in canine blood**
Rachel Smith |  | Oklahoma State University, College of Veterinary Medicine, Stillwater, OK, USA
16. **What can the areas of low *D. immitis* preventive governance teach us?**
Norma Labarthe | Fundação Oswaldo Cruz, Rio de Janeiro, RJ, Brazil
17. **Detection of *Dirofilaria striata* in the endangered Florida panther (*Puma concolor coryi*) in North Central Florida**
Trey Tomlinson |  | University of Florida, College of Veterinary Medicine, Gainesville, FL, USA
18. **Histologic changes in cases of rat lungworm and their resemblance to canine dirofilariasis**
Trey Tomlinson |  | University of Florida, College of Veterinary Medicine, Gainesville, FL, USA
19. **Probe-based real-time qualitative PCR (QPCR) targeting *Wolbachia* in combination with other standard diagnostic tests for detection of *Dirofilaria immitis***
Tiana Sanders |  | PhD candidate, Department of Veterinary Pathobiology, School of Veterinary Medicine and Biomedical Sciences, Texas A&M University, College Station, TX, USA
20. **Evaluation of matrix metalloproteinase-9 (MMP-9) and interleukin-6 (IL-6) as biomarkers for pulmonary parenchyma damage in canine heartworm**
Elena Carretón | Research Institute of Biomedical and Health Sciences (IUIBS), University of Las Palmas De Gran Canaria, Spain
21. **Mosquito diversity and molecular analysis of *Dirofilaria immitis* prevalence within the Cumberland Gap region**
Curran McKain |  | Lincoln Memorial University, College of Veterinary Medicine, Harrogate, TN, USA