

PRELIMINARY SCIENTIFIC PROGRAM



TIME	SESSION / TITLE	SPEAKER
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WEDNESDAY, SEPTEMBER 7

4:00-8:00 PM Registration / Check-in

THURSDAY, SEPTEMBER 8

7:00 AM Continental Breakfast

7:45 Welcome / Introductions / Announcements *Dr. Chris Duke*

8:00-10:30 AM **Session 1: Animal Models in Heartworm Research**

8:00-9:00 **Keynote Address:** Getting to know *Dirofilaria immitis* better to control it better *Dr. Tim Geary*

9:00-9:20 A dirofilariasis mouse model for heartworm preclinical drug testing *Dr. Joseph Turner*

9:20-9:40 Replacing the dog in canine heartworm research. I. Description of a novel in vivo model *Dr. Michael Dzimianski*

9:40-10:00 Replacing the dog in canine heartworm research. II. Application of a novel in vivo model *Dr. Michael Dzimianski*

10:00-10:30 AM Break

10:30-11:10 AM **Session 1: Animal Models in Heartworm Research (continued)**

10:30-10:50 Model of a lifetime: Development and optimization of a small-animal in vivo heartworm infection model *Dr. Molly Savadelis*

10:50-11:10 Speaker Panel Q&A

11:10 AM-12:30 PM **Session 2: Heartworm Management: The Mosquito Vector**

11:10-11:30 Deworming mosquitoes: Using drugs to block *Dirofilaria immitis* in its vector *Dr. Michael Povelones*

11:30-11:50 Effects on mosquitoes fed blood from dogs following a single oral treatment with Bravecto® (fluralaner) *Dr. Andy Moorhead*

11:50-12:10 Insecticidal activity of Simparica® and Simparica Trio® against *Aedes aegypti* in dog *Dr. Thomas Geurden*

12:10-12:30 Speaker Panel Q&A

12:30-2:00 **LUNCH - Noontime Knowledge (Preregistration Required)**

Heartworm Headaches & Heartbreaks


Drs. Chris Rehm and Tom Nelson

Treating Severe Heartworm Infection

Drs. Andy Moorhead and Marisa Ames

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TIME	SESSION / TITLE	SPEAKER
2:00-3:00 PM	Session 3: Clinical Topics, Part I	
2:00-2:20	Echocardiographic findings and outcome in small breed dogs with heartworm disease	<i>Dr. Imke Maerz</i>
2:20-2:40	Feline heartworm disease and hypersensitivity to environmental allergens: Is there a link?	<i>Dr. Elena Carreton</i>
2:40-3:00	Speaker Panel Q&A	
3:00-7:30	Open time - Free afternoon	
7:30-9:30	Opening Reception Sponsored by Boehringer-Ingelheim	
		

FRIDAY, SEPTEMBER 9

7:00 AM	Continental Breakfast	
7:45 AM	Welcome / Introductions / Announcements	<i>Dr. Chris Duke</i>
8:00-10:00 AM	Session 4: Heartworm Prevention	
8:00-8:20	Evaluating moxidectin in the face of heartworm resistance	<i>Dr. Molly Savadelis</i>
8:20-8:40	Microfilaricidal and adulticidal effects of Simparica Trio® in experimentally induced heartworm infections: A safety study	<i>Dr. Jessica Rodriguez</i>
8:40-9:00	Comparative preventive efficacy of ProHeart® 12, Heartgard® Plus and Interceptor® Plus against a macrocyclic lactone-resistant strain (JYD-34) of heartworm in dogs	<i>Dr. Susan Holzmer</i>
9:00-9:20	Preventive efficacy of oral moxidectin, Simparica Trio®, Heartgard® Plus and Interceptor® Plus against macrocyclic lactone-resistant strains of heartworm (<i>Dirofilaria immitis</i>) in dogs	<i>Dr. Kristina Kryda</i>
9:20-9:40	Retrospective analyses of heartworm (<i>Dirofilaria immitis</i>) and flea and tick prevention medication compliance in veterinary practices in the US	<i>Dr. Kennedy Mwacalimba</i>
9:40-10:00	Speaker Panel Q&A	
10:00-10:30 AM	Break	

TIME	SESSION / TITLE	SPEAKER
10:30 AM-12:30 PM Session 5: Clinical Topics, Part II		
10:30-10:50	Pulmonary parenchymal disease	<i>Dr. Steve Jones</i>
10:50-11:10	Usefulness of NT-proBNP in dogs with heartworm: Could this biomarker be useful to evaluate pulmonary hypertension?	<i>Dr. Elena Carreton</i>
11:10-11:30	Serological biomarkers (serum acute phase proteins, adiponectin and endothelin-1) for the evaluation of pulmonary hypertension in dogs with heartworm before and after adulticide treatment	<i>Dr. Elena Carreton</i>
11:30-11:50	Angiotensin-converting enzyme 2 in dogs with <i>Dirofilaria immitis</i>	<i>Dr. Darcy Adin</i>
11:50-12:10	Point of care ultrasound (POCUS) in dogs with heartworm infection	<i>Dr. Marisa Ames</i>
12:10-12:30	Q&A for the Clinicians	
12:30-2:00	LUNCH - Noontime Knowledge (Preregistration Required)	
	Heartworm disease in the shelter and rescue setting	<i>Drs. Angele Bice and Brian DiGangi</i>
2:00-3:00 PM Session 5: Heartworm Diagnosis		
2:00-2:20	Temporal patterns of <i>Dirofilaria immitis</i> -derived microRNA populations in serum of experimentally infected dogs in the search for novel diagnostic biomarkers	<i>Dr. Guilherme Gomes Verocai</i>
2:20-2:40	Droplet digital PCR as a tool to detect resistant isolates of <i>Dirofilaria immitis</i>	<i>Dr. Sohini Kumar</i>
2:40-3:00	Probe-based qPCR as an alternative to Knott's test when screening dogs for heartworm infection in combination with antigen detection tests	<i>Dr. Guilherme Gomes Verocai</i>
3:00-3:30 PM	Break	
3:30 - 5:40 PM Session 5: Heartworm Diagnosis (continued)		
3:30-3:50	Assessing the field performance of a cell-phone based video-microscope for diagnosing heartworm infection in dogs	<i>Dr. Caroline Sobotyk de Oliveira</i>
3:50-4:10	Evaluation of urine for <i>Dirofilaria immitis</i> antigen detection in dogs	<i>Dr. Meriam Saleh</i>

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4:10-4:30	Increasing temperature denatures canine IgG reducing its ability to inhibit heartworm antigen detection	<i>Dr. Jeff Gruntmeir</i>
4:30-4:50	No antigen cross-reactivity before or after heat treatment in heartworm-negative dogs infected by intestinal parasites, <i>Acanthocheilonema reconditum</i> , and the dermal filariid <i>Cercopithifilaria bainae</i>	<i>Dr. Jeff Gruntmeir</i>
4:50-5:20	Feline heartworm diagnosis	<i>Dr. Tom Nelson</i>
5:20-5:40	Speaker Panel Q&A	
5:40 - 6:45	Poster Session	

SATURDAY, SEPTEMBER 10

7:00 AM Continental Breakfast

7:45 - 8:00 AM Welcome / Introductions / Announcements *Dr. Chris Duke*

8:00-10:00 AM Session 6: *Wolbachia* and Doxycycline

8:00-8:20 Short-course azaquinazoline anti-*Wolbachia* drugs for heartworm: Once-monthly dose prophylaxis proof-of-concept in rodent infection models *Dr. Joseph Turner*

8:20-8:40 Inability of *Dirofilaria immitis* infective larvae from mosquitoes fed on microfilaremic dogs during low-dose and short-treatment regimen doxycycline plus ivermectin treatment to complete normal development in heartworm naive dogs *Dr. John McCall*

8:40-9:00 Long-term evaluation of viability of microfilariae and IV transplanted adult *Dirofilaria immitis* in microfilaremic dogs treated with low-dose, short and long regimens of doxycycline and ivermectin *Dr. John McCall*

9:00-9:20 Preview: Doxycycline dosage study *Dr. Tom Nelson*

9:20-9:40 Brazil doxycycline & *Wolbachia* study *Drs. Doug Carithers and John McCall*

9:40-10:00 Speaker Panel Q&A

10:00-10:30 Break

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TIME	SESSION / TITLE	SPEAKER
10:30-11:45 AM	Session 7: Cellular Basis of Heartworm Disease	
10:30-10:50	Single-cell perspectives on anthelmintic action and filarial antigens	<i>Dr. Mostafa Zamanian</i>
10:50-11:10	Influence of <i>Dirofilaria immitis</i> somatic extract in canine vascular endothelium and perivascular smooth muscle: Proteomic study using LC-MS/MS	<i>Dr. Rodrigo Morchon Garcia</i>
11:10-11:30	Study of angiogenic process in an in-vivo model of endothelial cells stimulated with <i>Dirofilaria</i> excretory/secretory antigens and cuticle proteins	<i>Dr. Rodrigo Morchon Garcia</i>
11:30-11:45	Speaker Panel Q&A	
11:45-1:30 PM	Luncheon and Business Meeting Luncheon sponsored by Merck	
		
1:30-4:30 PM	Session 8: Clinical Topics, Part III	
1:30-1:50	Evaluation of renal values during treatment for heartworm disease in 27 client-owned dogs	<i>Dr. Allison Meindl</i>
1:50-2:40	Anesthesia for dogs with heartworm disease	<i>Dr. Jane Quandt</i>
2:40-3:00	Management and outcome of intracardiac heartworms in dogs	<i>Dr. Jorge Vila</i>
3:00-3:30 PM	Break	
3:30-4:00	Interpretation of the right heart of thoracic radiographs	<i>Dr. Marisa Ames</i>
4:00-4:30	Speaker Panel Q&A	
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SUNDAY, SEPTEMBER 11		
7:00 AM	Continental Breakfast	
7:45-8:00 AM	Welcome / Introductions / Announcements	<i>Dr. Chris Duke</i>
8:00-10:00 AM	Session 9: Heartworm Management in Shelters, Zoos and Community Practice	
8:00-8:20	Decision-making considerations for heartworm management in shelter dog populations	<i>Dr. Uri Donnett</i>

TIME	SESSION / TITLE	SPEAKER
8:20-9:00	Heartworm adulticide treatment: A tropical perspective	<i>Dr. Filipe Dantas-Torres</i>
9:00-9:20	Further variation of the adulticide protocol for the treatment of canine heartworm infection: Can it be even shorter and cost less?	<i>Dr. Linda Jacobson</i>
9:20-9:40	Should heartworm treatment guidelines embrace spectrum of care alternatives to melarsomine? A review of “moxi-doxy”	<i>Dr. Linda Jacobson</i>
9:40-10:00	All things equal, do cats and dogs carry a similar risk of exposure to heartworms?	<i>Dr. Jessica Rodriguez</i>
10:00-10:30	Break	
10:30–11:40 AM	Session 9: Heartworm Management in Shelters, Zoos and Community Practice (continued)	
10:30-10:50	Heartworm, <i>Dirofilaria immitis</i> , in carnivores kept in zoos located in Texas, USA: Risk perception, practices, and prevalence	<i>Dr. Kaitlyn Upton</i>
10:50-11:10	Detection of <i>Dirofilaria immitis</i> via integrated serological and molecular analyses in coyotes from Texas, USA	<i>Dr. Caroline Soboty</i>
11:10-11:40	Speaker Panel Q&A	