

Global Experts Take a Fresh Look at Companion Animal Parasites, with the Cat in Mind

Pet ownership is changing; the planet is changing; and this is bringing parasites into the spotlight. Over 40 leading parasitologists, veterinary clinicians, pharmacologists, and expert epidemiologists came together at the first Vetoquinol Scientific Roundtable Parasitology event (Paris, April 2022) stimulating the exchange between science and industry in veterinary parasitology and challenges in feline parasite infections.

Considering the sharp rise in popularity of the cat among pet owners, the participants agreed that it's time to address the lack of understanding around feline parasites compared to knowledge about canine parasites.

The presentations and debate across the two days focused on how the veterinary profession can respond to current parasite challenges and needs in feline parasitology to better safeguard human and animal health.

A Perfect Storm for Parasites

New research is continually uncovering more about the complexity of the interactions between people, their pets, and the planet. In the field of parasitology, assessment of the impact that these factors have on the prevalence, evolution and emergence of companion animal parasites is of huge interest. In short, the evidence suggests that these dynamics are shifting in favour of certain parasites.

Ian Wright, Head of the Guideline Commission of the European Scientific Counsel of Companion Animal Parasites (ESCCAP), summarised the issues, suggesting that the world is currently experiencing the perfect mix of sociological and climatic factors to increase the spread of parasites, and the impact they have on both human and animal health.

"We have recently seen pet ownership boom, especially for cats, who now outnumber pet dogs in many countries," he said. *"This, paired with the fact that people are living more closely with their pets, makes the threat of zoonoses more real than ever."*

While increased proximity between humans and pets presents risks to individuals, the increasing movement of pets was cited as a key factor in shifting parasite species distribution. This, and the impacts of climate change, risk turning the movement of parasites to new areas from a potentially transient problem into something altogether more permanent. Animal health professionals are seeing cases of parasites becoming established in traditionally non-endemic areas as conditions become more favourable.

The issue is further compounded by the relatively recent emphasis on developing green spaces and biodiversity in many countries, said Ezio Ferroglio, Professor of Parasitology and Parasitic Diseases at the Department of Veterinary Sciences, University of Turin, Italy. He described how the impact of climate change, the rise of what he termed, 'naturban' areas (mixing natural spaces into urban areas), and the rewilding efforts of many countries, affects parasite distribution.

"Biodiversity is great, but this also means biodiversity in pathogens," he explained.

Have We Been Underestimating Feline Parasites?

The limitations and complex nature of testing for many companion animal parasites was one point that the group agreed is a key challenge. There was a consensus that veterinarians (and public health authorities) need to be doing more frequent, and better testing and reporting, but it isn't always practically achievable.

Cassan N. Pulaski, Acting Director of Parasitology, University of Georgia USA, said: *"If we're not looking for specific parasites, then we're never going to find them."*

Wright echoed this sentiment in his advice for veterinarians: *"To get familiar with the parasites on your doorstep you need to test, test and again test alongside treatment."* However, he also noted that the lack of in-clinic tests on the market for cats is a frustrating limiting factor.

Emily Jenkins, Professor of Veterinary Microbiology and Public Health, University of Saskatchewan, Canada, believes there are multiple reasons why veterinarians still may not see the full picture of parasite prevalence, even if they are regularly testing pets.

"We are hugely underestimating some parasites, such as Taenia, as only a small percentage of animals will actually be shedding eggs," she said. *"Some of our laboratories also just report 'ascarids' and don't differentiate, which is a problem as some are zoonotic and others aren't."*

Cats are not Small Dogs

Attempts to fill knowledge gaps has often been historically achieved through extrapolation of data from dogs. However, as Sam Taylor, International Society of Feline Medicine (ISFM) Academy Lead and Specialist Veterinary Advisor to ISFM, UK, reminded us; *"Cats are not small dogs. Due to their unique evolution, their physiology and behaviour is very different from their canine counterparts. This means that we are still behind in our understanding and approach to feline parasites when compared to dogs."*





Barbara Kohn, Professor of Small Animal Internal Medicine and Director of the Small Animal Clinic of the Faculty of Veterinary Medicine, Freie University Berlin, Germany, elaborated on this point, referencing how, compared to dogs, cats can respond differently to parasitic infections. She explained that cats are often asymptomatic and therefore contribute epidemiologically in a more significant way than the animal health industry has previously realised.

It was agreed that outside veterinary practice, this 'species blindness' has led to little research into feline specific diseases, which has limited new product development and feline-specific medications. The roundtable participants were in firm agreement that this needs to change – and soon, with a more 'cat-centric' approach taken to all aspects of feline care, including parasite control.

The Challenges of a Risk-based Approach

Clearly both global and local data are key to understanding more about the feline parasite landscape and they allow a more robust 'individual risk-based approach' to be taken for parasite protection. This emerged as a hot topic for discussion.

While all agreed that assessing individual risk supports the evidence-based medicine approach that underpins gold standard veterinary care, there were many credible barriers cited by the group to achieving this in practice.

It was suggested that an approach based solely on testing, rather than routine treatment (as in much of Scandinavia), would be difficult for many other countries.

Georg von Samson-Himmelstjerna, Professor and Director of the Institute for Parasitology and Tropical Veterinary

Medicine, Freie University Berlin, Germany, went as far as to say: "I think only sticking to the diagnostic route is actually irresponsible in many situations." He explained: "We need more epidemiological data and also better diagnostic tools. Some tests have very low sensitivity, including some of those that test for parasites with zoonotic impact."

This opinion was reiterated by other participants, who explained that for many regions risk can be ubiquitous, so recommending regular preventative treatments is the only responsible approach.

Rebecca Traub, Professor OF Veterinary Parasitology at the University of Melbourne, Australia, said: "If we perform a risk-map of India or the tropics, the entire map will be red. All pets are at high risk of acquiring endoparasites, as is the risk of zoonotic transmission of many of these parasites", she added. "Australia, where I come from, is no different in tropical and sub-tropical areas. Regular parasiticide treatment is the only way."

What's more, when compliance is already so low in some higher-risk pets, such as outdoor cats, many participants agreed that perhaps energy would be best focused here.

One participant commented: "We still only see cats being dewormed around two times a year – we really need to make some improvements here, as the majority of outdoor cats are classed as 'high-risk'."

New Products and New Approaches

The participants agreed that new product development is a key part of progressing in parasitology. In his presentation, Paul A. M. Overgaauw, Assistant Professor at the Division of Veterinary Public Health at the Faculty of Veterinary Medicine



in Utrecht, the Netherlands, reminded the Roundtable of the huge leaps in product development that have been made over time.

He explained: *"Previously, we didn't have recommended deworming schedules for pets. Then we had deworming schedules that tended to be the same for dogs and cats. We had limited products, and many didn't have licenses for immature stages or cover the spectrum of parasites needed."*

He commended the choice that's currently available – *"Now, some products are even licensed for pregnant queens that can help prevent vertical transmission of certain nematodes."* he added.

One of the most exciting recent advances has been the exploration of novel classes of parasiticides. Wolfgang Bäumer, Professor of the Institute of Pharmacology and Toxicology, Freie University Berlin, Germany, gave a pharmacologist's perspective of one 'systemic-acting-laner'. In his presentation he differentiated the variety of chemical compounds from the isoxazoline and the bispyrazole class.

He highlighted that: *"Tigolaner, a bispyrazole, has high efficacy against many ectoparasites, with its long-lasting effect against fleas and ticks being its most notable feature."*

Vetoquinol

Vetoquinol is committed to advancing veterinary parasitology, demonstrated through our groundbreaking launch of Felpreva®, the first endectocide spot-on for cats to treat both internal and external parasites, including tapeworms, with an efficacy against fleas and ticks for up to three months. Vetoquinol works with leading parasitology organisations, ESCCAP, CAPC and WAAVP and we support key parasitology conferences across the globe to encourage progress. The Vetoquinol Scientific Roundtable Parasitology is just one example of Vetoquinol's commitment to sharing knowledge and stimulating discussion across the animal health industry to aid innovation.

This longevity of action is appealing to owners, which Taylor noted is vitally important to consider.

"We must use cat-friendly principles for all aspects of veterinary care and support cat owners in medicating cats, as this is an enormous challenge for many," he said. *"Veterinarians should prioritise protecting that special cat-owner bond through their advice and product recommendations."*

Keeping Cats Front of Mind

Ultimately, the participants kept returning to a common theme – stay informed and open-minded, but most of all, the cat should always be central to devising recommendations for cats. It sounds simple but as the discussions demonstrated it can be easy to overlook.

Changing the Status quo

Katrin Blazejak, Veterinary Parasitologist at Vetoquinol summarised the importance of responding to current changes in the parasite landscape: *"With so many risk factors in a state of flux, it's never been more important to reassess our approach – we mustn't just keep doing what we've always done."*

The first Vetoquinol Scientific Roundtable Parasitology event revealed key advice for veterinarians to help optimise their approach to protecting cats from parasites:

- Keep up to date with risks, globally and in particular, locally in your practice area
- Keep your mind open to parasitic differentials that you may not have considered before
- Engage with the latest research
- Make use of the guidelines produced by organizations such as ESCCAP, CAPC, and TroCCAP



Katrin Blazejak

Katrin Blazejak studied Veterinary Medicine at the University of Veterinary Medicine, Hannover, Germany. After graduation in 2015, she commenced her specialisation in parasitology with a doctoral degree (Dr. med. vet.), and obtained a German veterinary specialisation degree as a certified Veterinarian for Parasitology (Fachtierarzt für Parasitologie) in 2020. In September 2021, she joined Vetoquinol as Global Medical Manager Parasitology and is based in Paris, France.



Norbert Mencke

Norbert Mencke studied Veterinary Medicine at the University of Veterinary Medicine, Hannover, Germany. After graduation in 1987, he commenced his PhD studies at the Department of Agriculture in Adelaide, Australia. In 1995 he became a certified Veterinarian for Parasitology, and in 2003 a European Veterinary Specialist in Parasitology. He has lectured in veterinary parasitology and tropical veterinary medicine at the University of Hannover since 2003. In 2020, he joined Vetoquinol and holds the position of Global Medical Manager Parasitology, Paris France.