

## HOW MOLECULAR TESTING IS RESHAPING THE WAY PARASITES CAN BE DETECTED

VPN, March 28<sup>th</sup> 2022

As technology improves, veterinarians can better treat their patients for parasites. Parasitic infections are common in cats and dogs. However, today's parasites, characterized by rapid mutations and drug resistance, have successfully outpaced traditional screening and diagnostic capabilities, which are either not sensitive enough or they do not detect the number of parasites of significance to pet health. "Fecals" the most frequently used screening technology is an unpleasant, time-consuming process that is more than 100 years old. The next diagnostic advance, the enzyme-linked immunosorbent assay (ELISA) also remains unable to reveal specific information about a parasite. Molecular diagnostics plays a fundamental role here. The ability to detect a broad range of parasites in one sample, identify zoonotic genotypes, and differentiate among assemblages of *Giardia* to inform effective treatment all extend the veterinary professions' leadership in addressing emerging threats to both human and animal health. Additionally, molecular technology can screen for a wide range of parasites—20 from a single sample. This vastly exceeds what is possible with conventional tests.

## 12 DOG BREEDS MOST LIKELY TO EXHIBIT SIGNS OF OCD

Scientific Reports, March 2022



Dogs of first-time owners are most likely to exhibit repetitive signs of Obsessive Compulsive Disorder (OCD), new research has found. While canine compulsive disorder is not extremely common, some of the breeds most likely to exhibit signs of OCD include German Shepherds, Pembroke Welsh Corgis, Staffordshire Bull Terrier and adorable Cairn Terriers. The study, published in Scientific Reports, found that dog OCD behaviours include tail chasing, snapping at their reflection or shadow, surface licking, pacing, staring, spending time near their water bowl, and self-biting. Their research found that 1,315 out of 4,436 dogs (30%) engaged in repetitive behaviours, with dogs of first-time owners are 58% more likely to exhibit these behaviours. "Interestingly, we reported a novel association between repetitive behaviour and the owner's dog experience," the researchers wrote in their study. Moreover, we observed that a low amount of exercise and larger family size, environmental factors potentially increasing stress in the dogs' life, may increase the probability of repetitive behaviour."

## POLY(A) RNA SEQUENCING REVEALS AGE-RELATED DIFFERENCES IN THE PREFRONTAL CORTEX OF DOGS

Geroscience, March 2022

Dogs may possess a unique translational potential to investigate neural aging and dementia because they are prone to age-related cognitive decline, including an Alzheimer's disease-like pathological condition. Yet very little is known about the molecular mechanisms underlying canine cognitive decline. The goal of this study was to explore the transcriptomic differences between young and old dogs' frontal cortex. RNA isolates from the frontal cortical brain area of 13 pet dogs, which represented 7 different breeds and crossbreds, were analyzed. The poly(A) tail RNA subfraction of the total transcriptome was targeted in the sequencing analysis. Cluster analyses, differential gene expression analyses, and gene ontology analyses were carried out to assess which genes and genetic regulatory mechanisms were mostly affected by aging. Age was the most prominent factor in the clustering of the animals, indicating the presence of distinct gene expression patterns related to aging in a genetically variable population. A total of 3436 genes were found to be differentially expressed between the age groups, many of which were linked to neural function, immune system, and protein synthesis.

## VIVALDIS CORNER

Vivaldis was a proud participant at the "Indian Vetexpo-2022" organised by Paws Learning & Research Council India (PLRC) conducted at AP Shinde Symposium Hall, New Delhi on March 27<sup>th</sup> - 29<sup>th</sup>. Under self-sufficient India banner the event had eminent Indian speakers. And around 300 Veterinarians participated in the event. The main topics were on latest in pet dermatology and small animal surgery. Basic topics were small animal dermatology, the latest techniques and approaches for correct diagnosis; latest techniques in orthopaedic surgery with basic approach and correct site of incisions, etc. **In the Indian Pet Industry Forum (IPIF) Awards category, Unomarin from Vivaldis was shortlisted as one of the products of the year.**



## Unomarin

The Liver Rejuvenator

### Presentation:

Bottle of 120 ml & 60 ml

### Dose

1 ml per 12 kg b/w b.i.d.

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