

***Leishmania Surveillance in the Neapolitan***  
*Lisa Cinciripini*

*Beginning in February 2008 the very first formal research project for the Neapolitan Mastiff in the United States began. In January 2009, the AKC CHF awarded a grant (AKC CHF #122A) to Iowa State University to continue monitoring the incidence of Leishmaniasis in the Neapolitan Mastiff. This is the first award granted for research targeted specifically to the Neapolitan Mastiff.*

Partial Abstract of the Study: *“Visceral Leishmaniasis (VL) is a disease caused by the parasite Leishmania. Leishmania infantum infection in canines is gradually gaining a foothold in a handful of U.S. canine breeds, including Foxhounds, Italian Spinones, Neapolitan Mastiffs and Corsicas. Infection with L. infantum causes fatal organ-based disease in dogs globally. Prior to 1999, cases of leishmaniasis in the US were diagnosed in dogs from overseas. After 1999, leishmaniasis was found throughout Foxhound populations within United States. Since this time, numerous Foxhounds have tested positive for disease, current seroprevalence is believed to be near 9% infected dogs of the overall Foxhound population. It is not known for sure how this disease is spread in Foxhounds, bitches may be infecting their pups either while pregnant or through their milk. This is not the primary way of spreading Leishmania in other countries. Other breeds, including Neapolitan Mastiffs, are predisposed to infection with this parasite due to breed origination in tropical countries and a likelihood of mom to pup spread of disease. Our long-term goal is to prevent canine visceral leishmaniasis through identification and validation of specific factors as vaccine or immune changing candidates which promote asymptomatic VL. Our primary objective in this application is to better understand specific canine factors that promote clinical visceral leishmaniasis and to identify primary routes of spread of this disease in U.S. dogs.”*

Attached is the submission form which explains how to submit samples and should accompany your submission. The shipping of samples to ISU is free of charge, you must obtain a Fed Ex shipping account number from a Health Committee member prior to shipping. Samples are shipped directly to Dr. Petersen at ISU CVM, all dog and owner information is confidential. Samples can take up to 3 months to complete testing, owners will be notified by mail by Dr. Petersen directly within 1 week of testing.

Interpretation of Test results: Samples that are not in a viable state are discarded and not included in any reporting, a request for re-submission is requested from the owner. The required sample submission is divided into six wells to increase test accuracy.

- If one of the six samples came up positive, but the majority of the samples were negative, the sample is considered as negative.
- If there were equal numbers of negative and positive samples, it is “borderline” - It is highly recommend that all dogs who test borderline are re-tested every 6 months.
- If four or more of the six samples come up positive the result is positive. Positive dogs should be re-tested immediately to confirm results. Testing with both Dr. Petersen and North Carolina is highly recommended.

For Borderline or Positive dogs re-testing PCR with both Dr. Petersen and North Carolina Diagnostic Lab is recommended. Testing serology on questionable dogs through Cornell VDL or NC State VDL is also highly recommended. If you are concerned about a dogs status and need rapid results your Veterinarian should submit samples to NC State CVM Tick Borne Diagnostic Lab for PCR and serology or Cornell University diagnostic laboratory Leishmania kELISA or CDC IFA serology. Your Veterinarian can contact the primary researcher Dr. Peterson (515-294-9013 ) or USNMC HC member veterinarian Dr. White (541-206-7707) for confidential advise on specific submission information.

Owners who need assistance interpreting results or submitting samples can contact primary research Dr. Peterson (515-294-9013) or Health Committee Members Dr. Robin White (541-206-7707) or Lisa Cinciripini (360-357-4309).

To obtain a free test kit please contact the health committee at [nmhealth.committee@gmail.com](mailto:nmhealth.committee@gmail.com) or call Lisa Cinciripini directly. Please provide the number of samples you plan to submit, as well as your mailing address.

# Neapolitan Mastiff Leishmania Submission Form

Please use a pen, print clearly and complete entirely

Owners Name: \_\_\_\_\_ Daytime Phone Number: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Dog's Name: \_\_\_\_\_ AKC #: \_\_\_\_\_ DOB \_\_\_\_\_

Dog's Sire: \_\_\_\_\_ AKC #: \_\_\_\_\_

Dog's Dam: \_\_\_\_\_ AKC #: \_\_\_\_\_

## INSTRUCTIONS

You will need:  
3-6 cc Green top (Heparin) or Purple top (EDTA) Tube  
A small ziplock bag and a slip of paper to identify the sample  
A small box, several cold packs, bubble wrap  
A Fed Ex Overnight Label—printed off the internet or avail. at any FedEx Kinko's Location

It is best to collect and prepare your samples in the morning or early afternoon. Although times vary, most Fed Ex Overnight shipments must be done by 1 pm local time. Submissions are best sent on Mondays, Tuesdays or Wednesdays. In order to have accurate PCR and T-Cell assay results it is important that these samples arrive quickly so that the cells are viable on arrival.

- 1) Draw Blood
- 2) Place tube in ziplock bag with a slip of paper identifying sample—if submitting multiple samples complete one form for each sample and place each sample in individual bag.
- 3) Ship using FedEx—Contact either Lisa Cinciripini (360) 357-4309 or Dr. Robin White (541) 206-7707 to obtain the Fed Ex Account Number to pay for shipping.
- 4) Indicate that the box contains “Scientific Samples” - DO NOT INDICATE BLOOD. Telling them it contains blood only insights panic, going through the litany that it is dog blood will only confuse them and result in rejected shipment.
- 5) Place a cold pack on the bottom of the box, a layer of bubble wrap, the sample, another layer of bubble wrap and top with an additional cold pack.

If there are any questions, please email or call Dr. Petersen (515)294-9013 or [kalicat@iastate.edu](mailto:kalicat@iastate.edu). If you don't get a live person when calling, you can also try the lab and ask for Dr. P. Paola or Amanda at (515) 294-0964.

Send Samples overnight to:  
Dr. Christy Petersen  
2714Vet Med.  
Dept. of Vet Path.  
College of Veterinary Medicine  
Iowa State University  
Ames, IA 50011