

LEGG-CALVE-PERTHES PROJECT

The Canine Genetics Laboratory at Clemson University (recently moved from Texas A&M University) is soliciting samples from West Highland White Terriers for a current project investigating an orthopedic disease, Legg-Calve-Perthes Disease (LCPD). LCPD is a developmental disorder affecting the hip joint of puppies (usually between the ages of 4 and 12 months of age). This disease typically affects toy and miniature breeds and many cases require surgical intervention to prevent early debilitating degenerative joint disease. Surgical intervention can place significant financial burden on owners, with estimates of treatment costing nearly \$1000.

Our study aims to identify (1) the mode of inheritance of LCPD in the Westie and (2) candidate genes that may either cause the disease or be involved in the disease process. Our ultimate goal from this work is to identify the mutation causing LCPD. This would allow us to develop a genetic test that would enable early classification of affected dogs as well as detection of carrier dogs. Breeders would then be able to make informed decisions in their breeding programs and eliminate LCPD from their breeding lines.

To accomplish these goals, we need your help. We currently have samples from 7 LCPD-affected Westies and 6 unaffected Westies. Our minimum number of samples required to complete this work is 20 affected and 20 unaffected Westies.

The more samples we can accumulate beyond the minimal 40 will increase our chances of definitively identifying the gene(s) causing LCPD.

The research plan we designed for this project uses unrelated dogs, so we are not trying to collect entire litters or parent-offspring relationships. We define dogs as unrelated if they do not share a common grandparent. We request that a copy of the pedigree accompany each sample so that we may ensure we run the most unrelated samples.

We request a small sample of blood be collected from participating dogs, and mailed to our laboratory. Most veterinarians are willing to draw blood for research purposes at no cost. The instructions for sample collection and return shipment (at our cost), our submission form, and a consent form are available through links on the WFA website. Owners willing to participate in this study should contact Dr. Alison Starr (astarr@clemson.edu) for a FedEx account number to bill the sample shipment to.

Thank you for your time and consideration of this study.

Sincerely,

Alison N. Starr, Ph.D.
Keith E. Murphy, Ph.D.
Kate L. Tsai, Ph.D.

Clemson University, 51 New Cherry Rd, 319 BRC, Clemson, SC 29634
Phone: 864.656.0191

INFORMED OWNER CONSENT

Hereditary evaluation of Legg-Calve-Perthes Disease in toy and miniature breeds of dog

I, _____ (name), of

(address)

(City, Zip)

hereby consent to the participation of the following animal in the study of "Hereditary evaluation of Legg-Calve-Perthes Disease in toy and miniature breeds of dog". I certify that I am the legal owner (or agent of the owner) of, and am responsible for, this animal. I have read, received a copy, and understand the Informed Owner Consent Form.

Animal Details

Name: _____
Breed: _____
DOB: _____

Signature of Owner or Agent: _____ Date: _____
Signature of Investigator: _____ Date: _____
Witness: _____ Date: _____

I have received a copy of the consent form

Date _____

Owner/agent initials _____

Legg-Calve-Perthes (LCP) DNA Submission Form
Canine Genetics Research

FOR CGR USE ONLY

Laboratory tracking number _____

Owner Information

Owner Name: _____ Phone: _____

Address: _____

E-mail: _____

Dog Information (Please include pedigree with submission if available.)

Sex: M F (please circle) Birthdate: _____

Registered Name: _____

Call Name: _____

Sire: _____

Dam: _____

Has this dog been diagnosed with LCP? N Y

If yes, please provide the name of the diagnosing veterinarian:

If yes, is the condition unilateral (left or right) or bilateral? (Please circle)

If yes, how old was the dog when diagnosed? _____

Have any first degree relatives (parents, siblings, or offspring) of this dog been diagnosed with LCP? N Y Unknown

If yes, please indicate those relationships:

All information obtained in this study will be kept confidential by CGR

Any questions about this study should be directed to Dr. Alison Starr (astarr@clermson.edu) at 864-656-0191 or
Dr. Kate Tsai (ktsai@cvm.tamu.edu) at 979-845-5634

Blood Collection Instructions

For veterinarian:

- Draw ~3-5 cc of blood
- Fill EDTA tube
- Pad blood tube with paper towels or bubble wrap in a Ziploc bag to prevent breaking or leaking
- Pack blood sample in an insulated box (i.e., Styrofoam) with frozen ice packs

Return shipment instructions:

- Return blood sample with signed consent form and sample submission form.

Ship out STANDARD OVERNIGHT only Monday through Thursday.

Ship to:

Dr. Alison Starr - Murphy Lab

Clemson University

Department of Genetics and Biochemistry

51 New Cherry Rd

319 BRC

Clemson, SC 29634-0318

(864) 656-0191

Do not hesitate to call me at 864.656.0191 with any questions. Thank you so much!

Sincerely,

Alison Starr, Ph.D.

Clemson University

Canine Genetics Research