

Martha E Hoffman

CHIC DNA Banking Project

Sponsored by the Collie Health Foundation, Inc.

### **Calling all Collies!**

CHIC (Canine Health Information Center) is sponsored by AKC/Canine Health Foundation and Orthopedic Foundation for Animals. Contributing to this project will be one of the most important things you can do to preserve the future of the Collie breed. With the gene pool of all purebred dogs shrinking, breeders need to make health testing the cornerstone of their breeding program. With your help, we will have a DNA bank that all approved researchers will have access to when they need samples for genetic research projects. As a donor, you will have access to your dog's DNA when new tests become available. By banking blood samples, DNA will be extracted from the blood and then held at the University of Missouri. OFA believes this process will preserve the DNA forever. Please be a part of helping CHF and AKC/CHF researchers find genetic markers for bloat, epilepsy, cancer, and so many other health issues. Having samples available when new research studies become available will cut down the time for samples to be made available to researchers and lead to positive conclusions much faster.

- CHF will pay the \$20 CHIC DNA Banking Fee for all Collies
- CHF will reimburse (with receipts) up to \$125 for collection and shipping costs. Please do **multiple dogs** at a time to keep these costs under control. You are welcome to send healthy dogs in at the same time to be part of the control group.
- CHF will sponsor a DNA collection clinic at the Collie Club of America National Specialty Show in Virginia Beach in 2018. This will be co-sponsored by the Orthopedic Foundation for Animals and the American Kennel Club/Canine Health Foundation. Cindi Bossart, VMD will be managing the clinic.

### **Collies to be Banked Immediately**

- Collies with genetic health issues and cancers.
- Veterans over 7 years old.
- Collies related to dogs with genetic health issues.
- If you must euthanize your Collie, please let him/her be an important part of the future of preserving the Collie Breed. We know this will be difficult but every Collie counts.
- **All Collies!**

[www.colliehealth.org](http://www.colliehealth.org)

[www.caninehealthinfo.org](http://www.caninehealthinfo.org)

[www.akcCHF.org](http://www.akcCHF.org)

## How to Bank Your Collie

1. Visit the CHIC website: <http://www.caninehealthinfo.org/dnabank.html>.
2. Click on this link and read: Instructions for submission via DNA Blood Samples.  
<http://www.caninehealthinfo.org/dnabankinstructblood.pdf>
3. Download the DNA Banking application, CHIC health survey and CHF Supplemental Health survey from the Collie Health Foundation website: <http://colliehealth.org/DNABanking.pdf>
4. Fill out a separate application for every Collie you are banking.
5. Check Blood Collection Kit on the application.
6. Under payment, write in Collie Health Foundation.
7. Mail application to: CHIC DNA Repository 2300 E Nifong Blvd, Columbia, MO 65201-3806, or
8. Email the application to: [edziuk@offa.org](mailto:edziuk@offa.org) or
9. Fax application to: (573)875-5073.
10. Talk with your veterinarian about participating in DNA banking. Most veterinarians will give you a cost break to draw the blood. They can use a vet tech to do this. One vet has offered to collect blood on five Collies for \$25 total. Shipping will be additional.
11. As soon as you receive the test kit, make an appointment with your veterinarian. Now, find out if your vet will ship the blood overnight for you and charge you the shipping costs. Most vets are already set up to do this, and it will make it easier for you.
12. Fill out both health surveys. The CHIC and the supplemental Collie Health Foundation health survey. When we are asking about genetic tests, we are looking for testing by blood or swabs that have been done by respected labs for Collies. Genetic tests from labs that run multiple DNA panels at one time should not be used. These may not be accurate. These low-cost panels were created by some labs for profit and to take advantage of the pet population. These results are not certified and could skew further research. If you are a breeder, these panel tests are worthless for your breeding stock. For help with filling out the health surveys, ask your vet, or contact CHF at [president@colliehealth.org](mailto:president@colliehealth.org) or [patimer@aol.com](mailto:patimer@aol.com) if you have questions. The health surveys should be turned in at the time when the blood is shipped.

## What to do Next

1. Scan or copy your receipts and email them to CHF Assistant Treasurer, Barbara Cleek, at [barbara@lochlarencollies.com](mailto:barbara@lochlarencollies.com). Please CC Treasurer, Karen Anderson, at [treasurer@colliehealth.org](mailto:treasurer@colliehealth.org) **OR** mail your receipts for reimbursement to: Collie Health Foundation, Inc., Barbara Cleek, Assistant Treasurer, 19631 SW Eagle Pt Rd, McMinnville, OR 97128.
2. Remember, please bank as many Collies as you can at one time to save the Collie Health Foundation additional shipping costs. Blood samples need to be shipped overnight and kept cool while in transit. The CHF Board voted to reimburse up to \$125 per DNA collection and shipping when receipts are presented.
3. Please update your Collie's health if something changes. This will be very important for future research. You do not need to report a death to CHIC unless it is due to a health issue that was not previously reported. Please report health updates to either of the following email addresses: [ofa@offa.org](mailto:ofa@offa.org) or [chic@ofa.org](mailto:chic@ofa.org).



**CHIC DNA Repository**  
 2300 E Nifong Blvd, Columbia, MO 65201-3806  
 Phone: (573) 442-0418; Fax: (573)875-5073  
 www.caninehealthinfo.org



**Dog Call Name:** \_\_\_\_\_

## Application for DNA Repository

Previous application number (if any):		Registration number: <input type="checkbox"/> AKC <input type="checkbox"/> CKC		Other registry name:	
Registered name:		Sex:		Other registry #:	
Breed:		Date of Birth (month-day-year):			
ID Number (if any): <input type="checkbox"/> Tattoo <input type="checkbox"/> Microchip		Registration number of sire:		Registration number of dam:	
Owner name:		Co-owner Name:			
Mailing address:		Owner Email:			
City:	State:	Zip/postal code:	Owner Phone:		

Upon receipt and processing of this application, the owner will receive a Sample Submission Kit depending on the option selected below.

**DO NOT SUBMIT SAMPLE WITH THIS INITIAL APPLICATION.**

Please fill out the health survey on the back of this form with later swab or blood submission.

**Sample Submission Kit Order**

- Swab Based Collection Kit \$5.00  
*(includes 4 cheek swabs to be submitted, collection instructions, health survey, mailing labels)*
- Blood Collection Kit \$20.00  
*(includes collection instructions, health survey, mailing labels)*

**DNA Sample Submission Agreement**

I hereby donate, assign, and transfer a DNA sample of the dog named above to the CHIC DNA Repository for research purposes and warrant my authority to do so. I understand that any future use or distribution of this DNA sample will be within the sole direction and authority of the CHIC DNA Repository. I authorize the OFA to provide any researchers receiving a portion of this sample with all necessary information including pedigree and health history to make the sample useful. My intent in providing this DNA sample is to further research into canine health issues. I hereby relinquish all rights to, and ownership of, the DNA sample.

\_\_\_\_\_  
 Signature of owner/agent

\_\_\_\_\_  
 Date

*Payments can be made by check, money order (U.S. funds drawn on a U.S. bank), cash, Visa, or Mastercard, payable to the Orthopedic Foundation for Animals.*

\_\_\_\_\_  
 Visa/Master Card Number

\_\_\_\_\_  
 COLLIE HEALTH FOUNDATION

\_\_\_\_\_  
 Exp Date

\_\_\_\_\_  
 CVV (security code)



# CHIC DNA Repository Health Survey

Has this dog ever been diagnosed with any of the following health issues? For each section you answer with a yes, please fill out the rest of the section. If you answer no to any section, skip to the next section.

## Eye Disorders Yes No

- Distichiasis
- Dry Eye
- Entropion
- Juvenile Cataracts
- Non Healing Corneal Ulcer
- Retinal Dysplasia
- Persistent Pupillary Membrane
- Glaucoma
- Cherry Eye
- Other \_\_\_\_\_

## Ear Disorders Yes No

- Chronic ear infection
- Deafness (if yes, describe coat color/pattern) \_\_\_\_\_
- Other \_\_\_\_\_

## Skin Disorders Yes No

- Atopic Dermatitis (allergy to inhaled substances)
- Food/Medicine Allergies
- Alopecia
- Autoimmune Skin Disease
- Systemic Demodectic Mange
- Sebaceous Adenitis
- Seborrhea
- Other \_\_\_\_\_

## Gastrointestinal Disorders Yes No

- Pyloric Stenosis
- Megaesophagus
- Cleft Palate
- Chronic Vomiting
- Chronic Colitis
- Inflammatory Bowel Disease
- Other \_\_\_\_\_

## Respiratory Disorders Yes No

- Congenital Tracheal Stenosis (narrow trachea)
- Stenotic Nares
- Elongated Soft Palate
- Laryngeal Paralysis
- Other \_\_\_\_\_

## Orthopedic Disorders Yes No

- Hip Dysplasia
- Patellar Luxation
- Elbow Dysplasia
- Premature IVD (intervertebral disc degeneration)
- Vertebral Anomalies
- HOD
- Other \_\_\_\_\_

## Cardiac Disorders Yes No

- Vascular Ring (right aortic arch)
- Subaortic Stenosis
- Pulmonic Valve Stenosis
- Persistent Ductus Arteriosus
- Persistent Foramen Ovale
- Tricuspid Valve Defect
- Mitral Valve Defect
- Cardiomyopathy
- Porto-Systemic Vascular Shunt (Liver Shunt)
- Other \_\_\_\_\_

## Urinary Disorders Yes No

- Ectopic Ureter
- Urinary Crystals/Stones
- Other \_\_\_\_\_

## Blood/Lymph Disorders Yes No

- Autoimmune Hemolytic Anemia
- Hemophilia (Type A or B)
- Idiopathic Thrombocytopenia
- vonWillebrand's disease (Symptomatic?)  Y  N
- Other \_\_\_\_\_

## Endocrine Disorders Yes No

- Hypothyroid
- Addison's disease (adrenal insufficiency)
- Cushing's disease (adrenal oversecretion)
- Diabetes
- Other \_\_\_\_\_

## Reproductive Disorders Yes No

- Cryptorchid/Monorchid
- Abnormal Sperm
- Testicular Atrophy
- Irregular heat cycle
- Uterine Inertia
- Other \_\_\_\_\_

## Neurologic Disorders Yes No

- Epilepsy
- Caudea Equina Syndrome
- Degenerative Myelopathy
- Other \_\_\_\_\_

## Cancer/Tumors Yes No

- Mast cell tumor
- Lymphoma
- Hemangiosarcoma
- Testicular cancer
- Mammary cancer
- Osteosarcoma
- Other \_\_\_\_\_

Collie Health Foundation, Inc.  
Supplemental CHIC Health Survey

Dog's Registered Name: \_\_\_\_\_ Dog's Registration #: \_\_\_\_\_

Variety:  Rough  Smooth

Color:  Sable  Tri  Blue Merle  Sable Merle  White  Homozygous (Double Dilute)  Harlequin

MDR1 Genetic Test:  Normal/Normal  Mutant/Normal  Mutant/Mutant

Cyclic Neutropenia (Grey Collie):  Clear  Carrier

Eye Disorders

CEA: Genetic Tested:  Affected  Normal **OR**

Ophthalmologist Certified:  Affected  Normal  Go Normal

Findings:  Choroidal Hypoplasia;  Coloboma;  Optic Nerve Coloboma;  Retinal Detachment;  
 Retinal Folds

Microphthalmos:

PRA: Genetic Tested:  Normal  Carrier  Affected **OR**

Ophthalmologist Certified:  Affected

Clear by Parentage:

Autoimmune Disorders

Dermatomyositis: Genetic Risk Assessment Tested  Result \_\_\_\_\_

Biopsied:  Affected;  Suspected

Systemic Lupus:  ANA tested

Discoid Lupus (Collie Nose):  Biopsied  Suspected

Pemphigus:  Biopsied  Suspected

Gastrointestinal Disorders

Bloat:  Bloating  Parent Bloating  Sibling Bloating  Offspring Bloating

Renal Disorders

Canine Renal Dysplasia:  Biopsied  Suspected

Juvenile Renal Dysplasia:  Biopsied  Suspected

Amyloidosis:  Biopsied  Suspected

Reproductive Disorders

Pyometra:

Small Litters:

Sterile:



# DNA Repository Submission Instructions via Blood Sample

**Your sample kit contains the following items:**

**Blood Kit:**

Bar code labels for 2 EDTA tubes  
Submission Instructions  
Return Mailing Label to OFA (survey)  
Return Mailing Label to MU (blood)  
Health Survey

**Directions for submitting DNA sample via Blood Sample:**

1. Contact your veterinarian to make arrangements to have blood drawn. This can be done at an appointment made specifically for this purpose, or you can arrange to have the blood drawn during some other regularly scheduled visit. Be sure to tell your veterinarian the blood sample is to be used for research purposes. Many veterinarians will then do the procedure at a reduced rate or at no cost.
2. Take your dog and ask that a sample of 5 to 10 cc's of whole blood be drawn into EDTA purple top tubes. Place the bar code label supplied with the kit onto the EDTA tube to identify the sample. If collecting multiple samples, please take care to ensure matching the correct samples with the correct bar code labels.
3. The blood sample only needs to be put in the tubes and rocked gently a few times to distribute the anticoagulant. The sample should NOT be spun, have serum extracted, or have anything further done to it.
4. Ship the sample via an overnight delivery service to the University of Missouri (address below). DO NOT ship samples on Fridays, as there will be no one available at the lab to receive the sample on Saturday.
5. The sample should be shipped using cool packs, and ideally should be shipped immediately. If samples are held for a day or over a weekend before shipping, they must be refrigerated.
6. Complete the health survey for each dog and send it to the OFA using the OFA mailing label provided. The health survey is a critical part of the repository. The samples are of little value without the corresponding phenotypic history and genealogy. If there are any significant health changes for this dog in the future, please email the OFA at [ofa@offa.org](mailto:ofa@offa.org) with the update..
7. Thank you for participating in the CHIC DNA Repository.

**University of Missouri Mailing Address**

University of Missouri  
Attn: Dr. Gary Johnson  
320 Connaway Hall  
Columbia, MO 65211

**OFA Mailing Address**

OFA  
2300 E Nifong Blvd.  
Columbia, MO 65201

**\*\* ADDITIONAL INFO:** Wrap tubes with bubble wrap. Use frozen gel pacs only (no ice of any kind). Place all questionnaires in 1 Ziploc bag inside box. If stating contents on shipping label write "DNA Samples".