

### **Instructions for taking samples for research project on CDA**

In our research project on the genetics of color dilution alopecia (CDA) we need to collect as many samples as possible from alopecia affected dogs and unaffected control dogs. As CDA can develop up to ~2 years of age it is necessary that the control dogs are older than two years of age, so that we can be reasonably sure that a dog that was classified as control does not develop CDA later in life. CDA affected animals may be of any age.

Criteria for CDA affected dogs:

- Dilute coat color (in most breeds: Blue, isabella-fawn, silver)
- Visible hair loss consistent with the typical localization of CDA (often starts at the back of the ears, flanks, back, caudal aspects of the limbs)
- No itching at the beginning of hair loss
- Facultative secondary symptoms, such as pyoderma, excessive scaling

Criteria for control dogs:

- Dilute coat color (in most breeds: Blue, isabella-fawn, silver), older than 2 years of age
- Normal hair coat, no visible hair loss, regular hair texture

For the molecular genetic research experiments we require a blood sample (1 ml or 2 ml EDTA blood), which should be taken by a veterinarian. Additionally we would like to receive ~50 pulled out hairs from two different localizations (e.g. back and hindlimb) that can be used for microscopy. The hair should be put in clean zip-lock plastic bags. The blood and hair samples need to be clearly labeled. The following information is required together with the samples:

- **name, sex, date of birth and date of sampling of the animal**
- **registry number of the animal**
- **copy of the pedigree certificate (an electronic file is welcome)**
- **coat condition / diagnosis (please fill questionnaire & send photo)**

If any additional diagnostic tests were performed, we would appreciate to get copies of the results. Especially a histopathological analysis of a skin biopsy is of high diagnostic value.

Blood samples should be sent immediately to our laboratory:

Prof. Dr. Tosso Leeb  
Institute of Genetics  
Bremgartenstr. 109a  
3012 Berne  
Switzerland

Phone +41 31 684-2326

The samples may be shipped at ambient temperature and should arrive within 4 days after sample taking at our laboratory. If you are located in Europe regular mail is sufficient. If you are located outside of Europe please use a courier service such as FedEx). We would like to thank you for your valuable cooperation, which is essential for our project. Please do not hesitate to contact us if you have open questions.

Yours sincerely,



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Prof. Dr. Tosso Leeb

**Questionnaire**  
**Research Project on Color Dilution Alopecia**

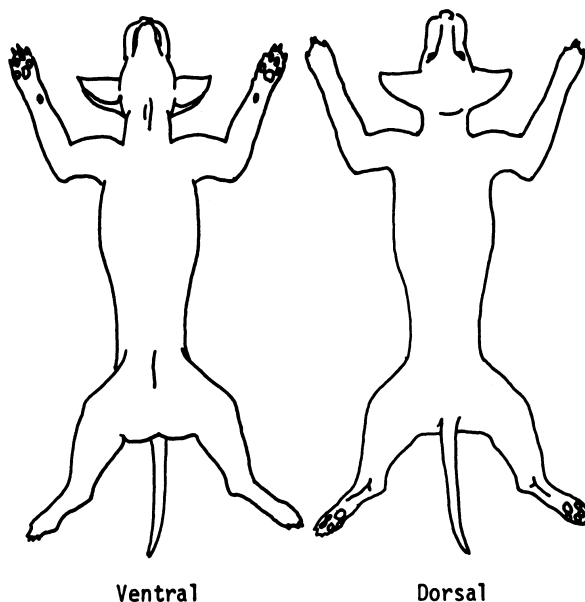
Name of the animal: .....

Coat color: .....

Date of birth: .....

Date of findings: .....

**Please send pictures (as jpg files per email)  
of the entire dog and of affected skin parts to:  
Tosso.Leeb@itz.unibe.ch**



Which of the following symptoms are visible on the animal (please check as appropriate and indicate location of the lesion in the diagram):

Primary Lesions:    \_\_\_None    \_\_\_Macule    \_\_\_Patch    \_\_\_Wheal  
                          \_\_\_Papule    \_\_\_Nodule    \_\_\_Plaque    \_\_\_Tumor  
                          \_\_\_Pustule    \_\_\_Vesicle    \_\_\_Cyst    \_\_\_Abscess

Secondary Lesions:    \_\_\_None    \_\_\_Alopecia    \_\_\_Scale    \_\_\_Crust    \_\_\_Erythema  
                          \_\_\_Necrosis    \_\_\_Erosion    \_\_\_Ulcer    \_\_\_Fissure    \_\_\_Scar  
                          \_\_\_Excoriation    \_\_\_Colarettes    \_\_\_Callus    \_\_\_Comedo  
                          \_\_\_Hyperpigmentation    \_\_\_Hypopigmentation    \_\_\_Hyperkeratosis  
                          \_\_\_Lichenification    \_\_\_Hyperhidrosis

Skin Changes:    \_\_\_Normal    \_\_\_Thick    \_\_\_Thin    \_\_\_Fragile  
                          \_\_\_Hypotonic    \_\_\_Hyperextensible    \_\_\_Increased Laxity

Hair Coat Changes:    \_\_\_Alopecia    \_\_\_Hypotrichosis    \_\_\_Hypertrichosis  
                          \_\_\_Dry Coat    \_\_\_Brittle Coat    \_\_\_Oily Coat  
                          \_\_\_Easy Epilation    \_\_\_Follicular Casts    \_\_\_Color Associated Hair Loss  
                          \_\_\_Primary Hairs    \_\_\_Secondary Hairs    \_\_\_Both

Pruritus:    \_\_\_Absent    \_\_\_Mild    \_\_\_Moderate    \_\_\_Severe  
                  \_\_\_Lesional    \_\_\_Nonlesional

Cutaneous Pain:    \_\_\_Absent    \_\_\_Mild    \_\_\_Moderate    \_\_\_Severe

Parasites:    \_\_\_Fleas    \_\_\_Flea Dirt    \_\_\_Lice    \_\_\_Ticks    \_\_\_Ear Mites  
                  \_\_\_Other: .....

Only for blue-and-tan dogs with CDA:    Severity of hair loss in blue areas: \_\_\_\_\_  
    Severity of hair loss in tan areas: \_\_\_\_\_

Other Findings: .....

Diagnosis/Differential: .....

(Please attach copies of pedigree certificate and copies of other relevant diagnostic tests, especially histopathology)