

## P2Y12 Receptor Platelet Disorder in Greater Swiss Mountain Dogs

A platelet disorder has recently been identified in Greater Swiss Mountain Dogs at the functional and molecular level [1]. The first dog documented to have the disorder bled excessively following a routine spay.

Platelets are small, circulating cytoplasmic fragments that are the first line of defense in stopping the flow of blood from injured blood vessels. An important aspect of platelet function is their ability to stick to each other and plug holes in damaged vessels until blood clotting and tissue repair can occur. The platelets in affected Greater Swiss Mountain dogs are unable to respond properly to a specific platelet activating agent because of a dysfunctional or missing receptor. Therefore, these dogs are at increased risk for spontaneous hemorrhage and they are also at high risk for excessive hemorrhage as a result of injury or surgery. Post operative hemorrhage may be life threatening. The types of spontaneous bleeding that may occur include excessive gingival bleeding during tooth eruption, nose bleeds, and superficial skin bleeds.

By using DNA testing, affected and carrier animals can be identified by submitting a blood sample through the mail. Carrier detection is vital in controlling spread of inherited defects and DNA testing is the only reliable method of detecting these animals.

1. **Boudreaux MK, Martin M. P2Y12 receptor gene mutation associated with postoperative hemorrhage in a Greater Swiss Mountain dog. Vet Clin Pathol 40(2):202-6, 2011.**

Specimen requirements: At least 1ml EDTA whole blood (purple top tube). Do not cross contaminate samples during collection particularly if more than one dog is collected at the same time. Label all specimens clearly. Protect the tubes to prevent breakage during shipping. All methods of shipping are acceptable. **Blood samples do not require ice.**

Ship to: Hemostasis Laboratory, Peter W. Christopherson  
166 Greene Hall  
Auburn University, AL 36849-5519

Fee for testing: \$130.00 (payment options listed below)

Invoice payments are due within 30 days from the invoice date and can be made securely online: <https://www.aub.ie/payinvoice>, by mailed check payable to: Pathobiology Diagnostic Services, or through wire transfer (email [weldolm@auburn.edu](mailto:weldolm@auburn.edu) for wire transfer instructions)

Questions regarding invoicing and/or payments: [weldolm@auburn.edu](mailto:weldolm@auburn.edu)



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OFFICE USE ONLY
ACCESSION
DATE

## HEMOSTASIS LABORATORY

### P2Y12 Receptor Platelet Disorder in Greater Swiss Mountain Dogs

SAMPLE DATE: \_\_\_\_\_ AGE AT TIME OF SAMPLING OR DATE OF BIRTH: \_\_\_\_\_

ANIMAL NAME: \_\_\_\_\_ BREED: \_\_\_\_\_ SEX:      MALE      FEMALE

ANIMAL REGISTRATION NUMBER (if applicable): \_\_\_\_\_

NAME OF SIRE (if applicable): \_\_\_\_\_

REGISTRATION NUMBER OF SIRE (if applicable): \_\_\_\_\_

NAME OF DAM (if applicable): \_\_\_\_\_

REGISTRATION OF DAM (if applicable): \_\_\_\_\_

PERTINENT HISTORY: \_\_\_\_\_

OWNER INFORMATION	VETERINARIAN'S INFORMATION (BILLING INFORMATION)
NAME	REFERRING VETERINARIAN
ADDRESS	CLINIC
CITY/TOWN	ADDRESS
PROVINCE	CITY/TOWN
POSTAL CODE	PROVINCE
COUNTRY	POSTAL CODE                      COUNTRY
PHONE	PHONE                                      FAX
	EMAIL
	FAX RESULTS                              EMAIL RESULTS

RESULTS (if you would like the results sent to additional emails and/or faxes please list below)

EMAIL 1: \_\_\_\_\_ FAX 1: \_\_\_\_\_

EMAIL 2: \_\_\_\_\_ FAX 2: \_\_\_\_\_

SPECIMEN REQUIREMENTS: EDTA WHOLE BLOOD (1ML)  
 TURNAROUND TIME FOR RESULTS: TYPICALLY 8 TO 10 WORKING DAYS UPON  
 ARRIVAL HARD COPIES OF REPORTS AVAILABLE UPON REQUEST