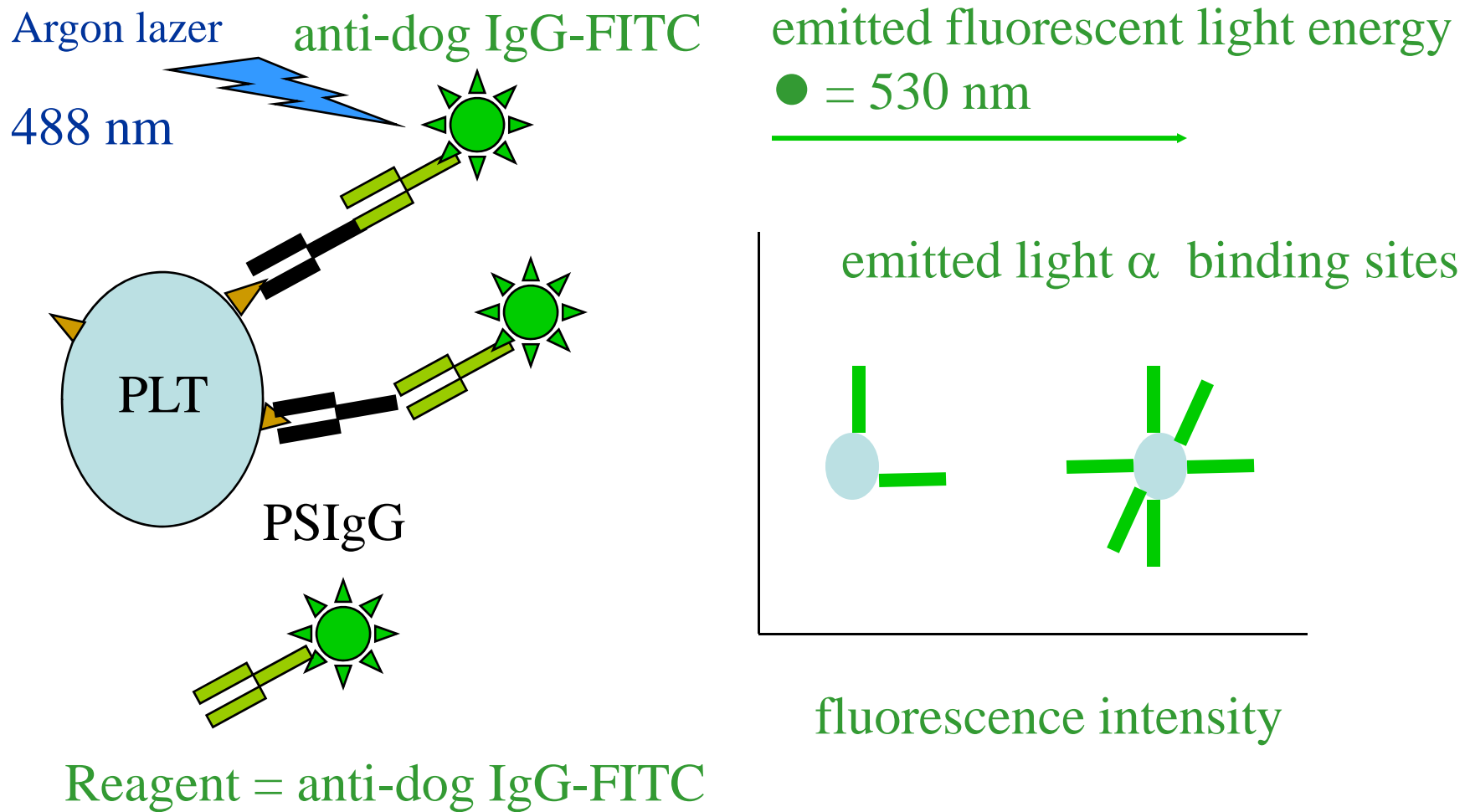
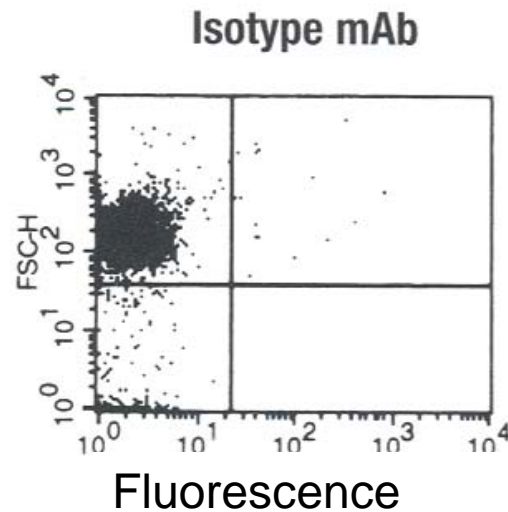


Platelet Surface Associated IgG Assay using flow cytometry

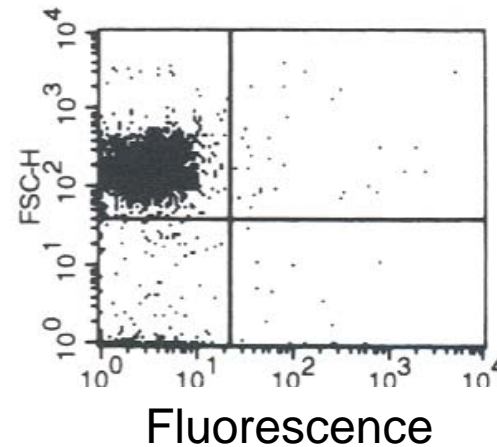


PSAIgG test in healthy dogs

Negative control Ab



Anti-Dog IgG



PSAIgG Cut off

< 14% for normal dog samples that are ≤ 4 hour old

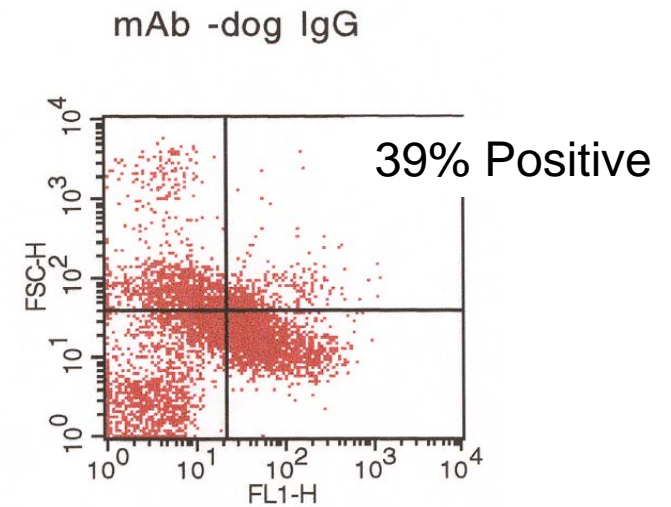
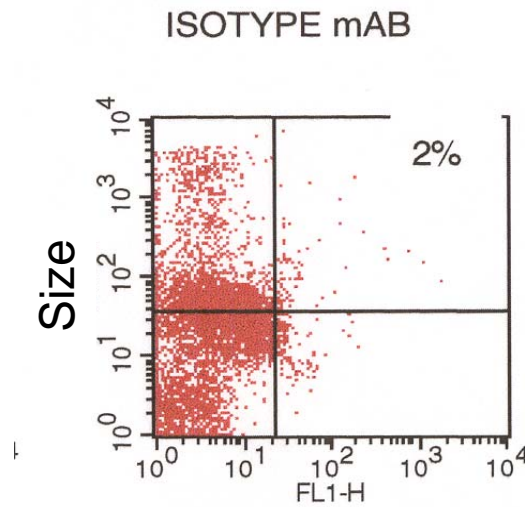
< 23% for normal dog samples that are ≤ 24 hour old

Case Example of Primary immune-mediated thrombocytopenia (IMT)

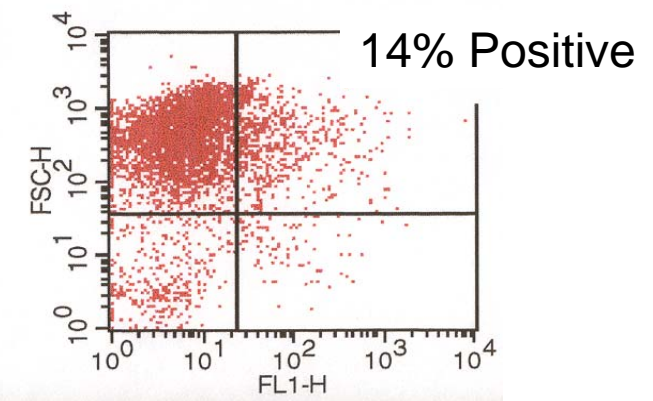
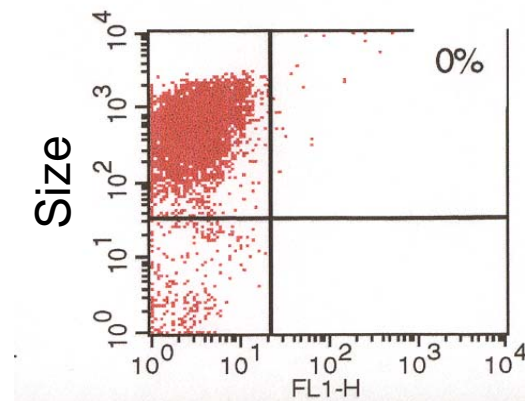
- 11 year old female spayed English Cocker
 - episodic thrombocytopenia responsive to corticosteroid therapy
 - 1,000/ μ l
 - negative titers to tick borne diseases
 - RMSF, Lyme's, Erhlichia
 - normal coagulation profiles
 - Mailed in sample

English Cocker – Primary IMT

Before treatment



After 10 days of
Prednisone



Fluorescence

Case Example of Secondary IMT

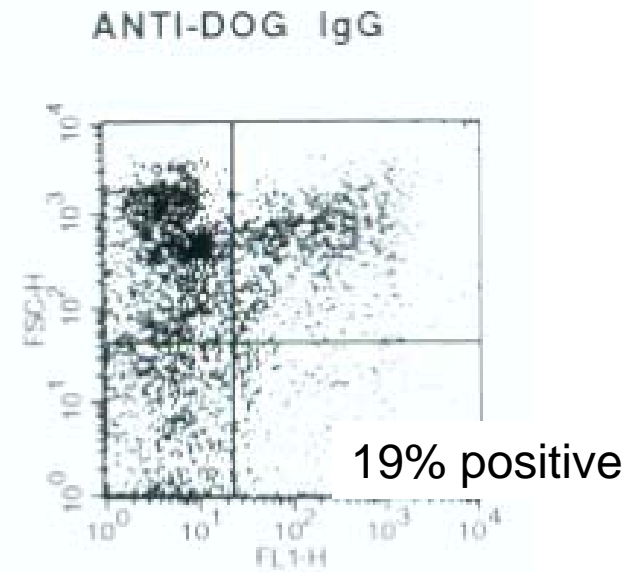
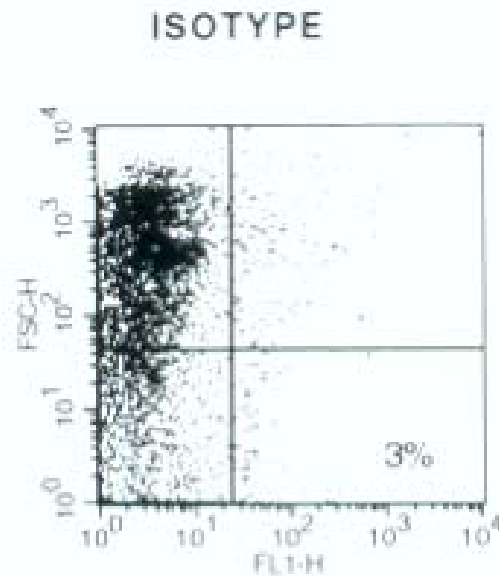
6 yr old male Labrador cross

Admitted to KSU (In house case)

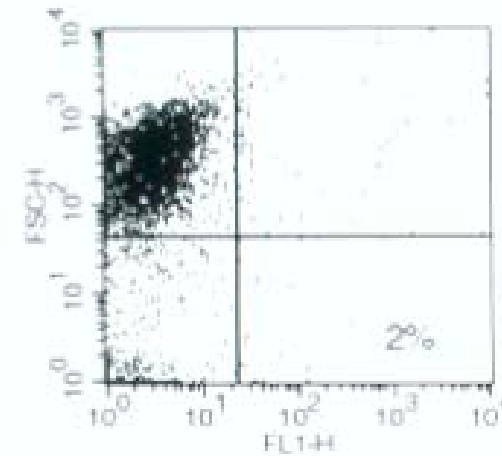
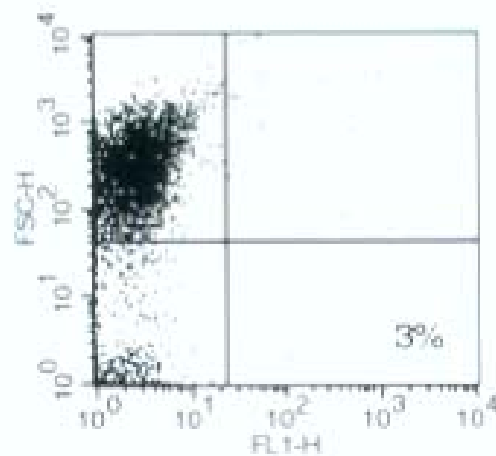
- Fever (106 F)
- Mild anemia (HCT = 30%)
- 64,000/ μ l platelets
- Ataxia
- Acute titer to RMSF 1:128
- Convalescent titer to RMSF 1:2048**

Dog with Rocky Mountain Spotted Fever

Before treatment



After 2 days of doxycycline



Dog recovered with treatment



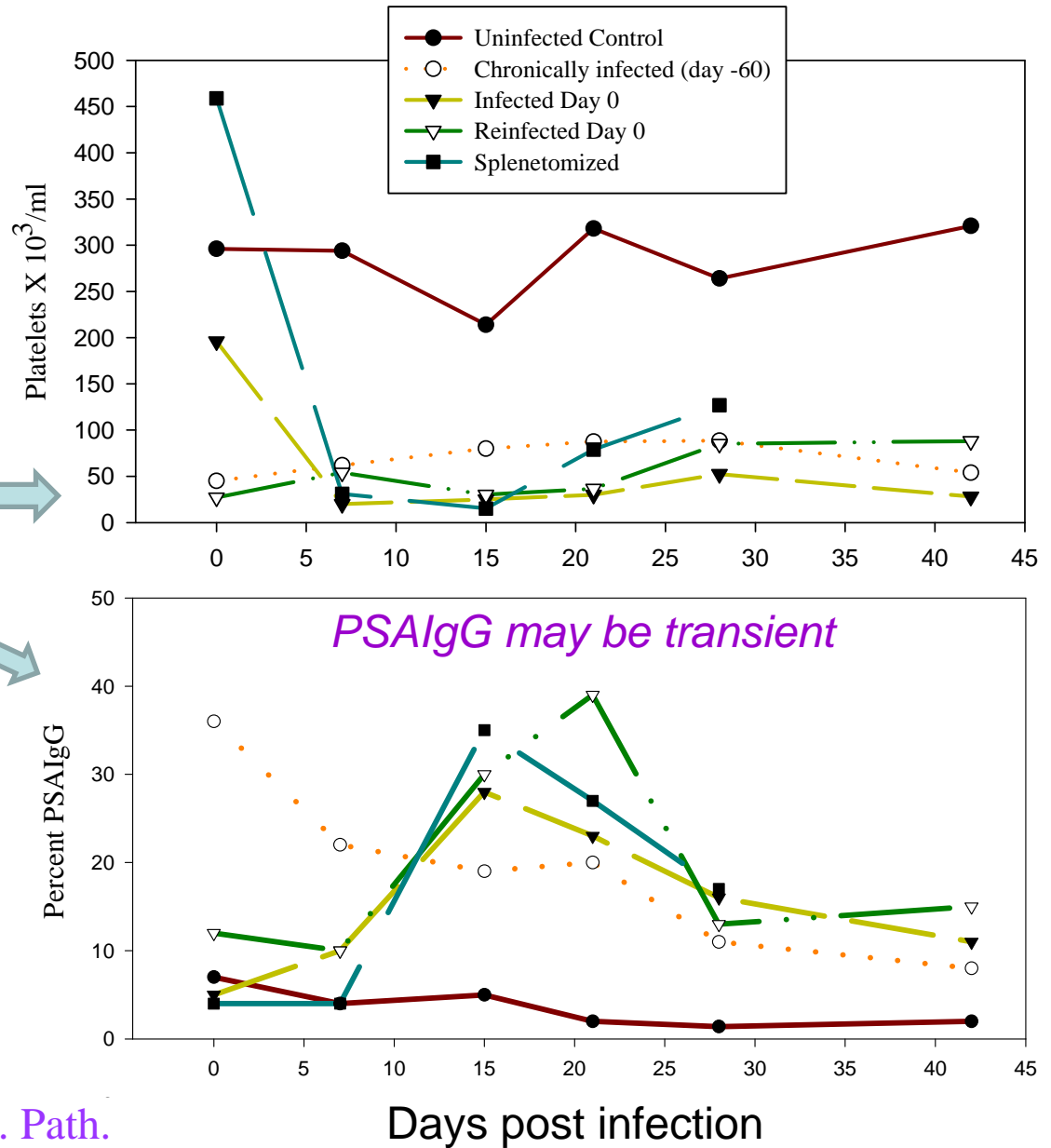
Cold IV fluids and doxycycline
Responded to treatment by 48 hours

Sensitivity/Specificity of PSAIgG

- Sensitivity 87.5% (21/24 true positive)
 - 12.5% (3/24) false negatives
 - Causes of false negatives
 - » Elution of antibody
 - » Antibody against megakaryocytes or cytokines
 - » Removal of antibody coated cells by the spleen
- Specificity 100%
 - 9/9 nonimmune cases
 - Myelophthisis due to lymphosarcoma
 - Neoplasia (sequestration or consumption?)

Wilkerson, Meinkoth, Harkin, Kocan, et al, 2001;30 Vet. Clin. Path.

Time course development of thrombocytopenia and PSAIgG in dogs infected with *Babesia gibsoni*



Wilkerson et al, 2001;30 Vet. Clin. Path.