Background
• We are investigating the role of a common canine genetic variant on the condition of pulmonary hypertension. This genetic variant is being evaluated to see if it impacts the severity of disease or the response to the oral medication, sildenafil citrate, the most commonly used drug for the treatment of this condition. Information provided by this study will provide better guidelines for the treatment of dogs with pulmonary hypertension.

Participation Requirements
• Dogs diagnosed with pulmonary hypertension confirmed by a complete echocardiographic study that was done at the UC Davis VMTH Cardiology service with a recommendation from the veterinarian to give oral sildenafil for treatment of the condition.

Procedures
• Initial visit: We will collect a small blood sample and then perform a non-invasive assessment of blood flow, which will involve shaving a small area (the size of a postage stamp). You will be asked to give the sildenafil orally to your dog as prescribed by your veterinarian.
• 25-35 days later: We need you to return to the hospital while your pet is receiving the medication to have the echocardiogram, blood sampling and shaved patch for vascular function assessment performed again.
• You (the owner) will be asked to fill out a brief health questionnaire for your dog at each visit.

Owner Responsibilities
• Completion of two brief questionnaires (one at each visit)
• Administration of all prescribed medications for at least 30 days
• Return while your pet is receiving this medication for a reevaluation appointment at the end of the 30-day period.
• You will be responsible for covering costs associated with any adverse effects that your dog experiences secondary to the prescribed medication.

Benefits
• There is no charge for you to allow your dog to participate in this clinical trial. The study will cover all costs associated with the diagnostic tests, examination fees and the 1-month supply of sildenafil medication.
• Results from this study will hopefully improve our understanding of the disease process and mechanisms for predicting patients response to medical therapy.