

## College of Veterinary Medicine

## Clinical Pathology Laboratory

**CLINICAL ENDOCRINOLOGY SUBMISSION****Laboratory Director:**

Andrea Santos, DVM, PhD, DACVP

**For Test Information or Results:**

Phone # (765) 494-7563 Fax # (765) 494-8640

**VETERINARIAN:**

Name \_\_\_\_\_

Email \_\_\_\_\_

Clinic Name \_\_\_\_\_

Email \_\_\_\_\_

Address \_\_\_\_\_

City, State ZIP \_\_\_\_\_

Phone \_\_\_\_\_

Fax \_\_\_\_\_

Date Collected \_\_\_\_\_

**OWNER:**

Name \_\_\_\_\_

Chart # \_\_\_\_\_

Animal \_\_\_\_\_

Species \_\_\_\_\_

Breed \_\_\_\_\_

Sex \_\_\_\_\_

DOB \_\_\_\_\_

**Clinical Signs/History:****Thyroid/Other Medications:****THYROID**

- \_\_\_ T4 Baseline  
\_\_\_ T4 (post TRH 2 Hr)  
\_\_\_ T4 (post TRH 4 Hr)

**ADRENAL**

- \_\_\_ Cortisol Baseline  
\_\_\_ Cortisol (post dex 12-15 Hr)  
\_\_\_ Cortisol (post dex 24 Hr)  
\_\_\_ Cortisol (post ACTH 8 Hr)

**MISCELLANEOUS**

- \_\_\_ Progesterone  
\_\_\_ Phenobarbital  
\_\_\_ Endogenous ACTH\* Baseline  
\_\_\_ Endogenous ACTH\* (Post TRH 10 min)

## Collection and Shipping Information

**General Instructions:** Do not send whole or clotted blood for any test. Label all tubes with the owner's name, patient name, designated test and time of collection, if part of a specific function test. Most of our tests require serum; please send a minimum of 0.5 ml of serum for each assay requested. Use plain glass or plastic clot tubes, allow clotting at room temperature, centrifuge as soon as possible, remove serum and refrigerate until shipment. The use of Serum Separator Tubes is not recommended by the manufacturer due to a potential 30% positive bias for T4 and Cortisol results.

*All samples for measurement of \*Endogenous ACTH should be collected into plastic K2 EDTA tubes, and kept cool at all times. Centrifuge, separate into a plastic tube containing no additive and freeze plasma until shipment of sample. Samples should be shipped on dry ice in an insulated container using crumpled paper or other material for insulation and protection of the samples. Gravity-separated samples but not centrifuged samples will return falsely high results if frozen. Samples for measurement of cortisol, T4 or progesterone should be sent on frozen ice packs during the summer months.*

**Thyroid hormone protocols:** For evaluation of equine thyroid function, T4 assays are recommended. For an equine TRH stimulation test, 1 mg of TRH should be given IV. Blood samples should be collected prior to TRH administration (for T4) and 2 and 4 hours after TRH administration (for T4). The TRH response test can also be used to screen for pituitary pars intermedia dysfunction (PPID, equine Cushing's disease). (See below).

**Evaluation of the adrenal axis:** For an equine ACTH stimulation test, after collecting a resting sample for cortisol assay, inject 0.1 µg/kg cosyntropin (Cortrosyn) and obtain a 30 minute sample. For a dexamethasone suppression, after collection of a pre-test sample at 5:00 pm, inject 0.04 mg/kg IM dexamethasone IM (Azium) and collect samples at 12-15 and 24 hours after injection.

**Progesterone Assay for Pregnancy Diagnosis:** This test requires a minimum of 0.5 ml of serum (Red top tube). Serum should be removed from the red cells before shipping. Progesterone is made by a functioning corpus luteum. In horses, progesterone is secreted throughout the luteal phase of the estrous cycle. The concentration is similar whether or not the mare is pregnant. Progesterone is a useful means of diagnosing pregnancy if interpreted in light of breeding dates and knowledge of when a mare would be in estrus if she were not pregnant. Llamas usually (90%) ovulate and form corpora lutea after they have been bred.

**\*Endogenous ACTH:** Collect 3mL of whole blood into a plastic K2 EDTA tube and keep it cool at all times. Centrifuge within 30 minutes of collection. Separate into a plastic tube containing no additive and freeze plasma until shipment of sample. Samples should be shipped on dry ice in an insulated container using crumpled paper or other material for insulation and protection of samples. Gravity-separated samples but not centrifuged samples will return falsely high results if frozen.

**For a TRH screen test, give 1 mg TRH I.V. after obtaining a baseline endogenous ACTH sample and then an additional sample at exactly 10 minutes after TRH administration.**

**Test interpretation:** Reference ranges are given on the reporting forms.

### Delivery Address:

Purdue University, Veterinary Hospital  
Clinical Pathology Laboratory  
625 Harrison St. Lynn Hall – RM. G-351  
West Lafayette, IN 47907-2026