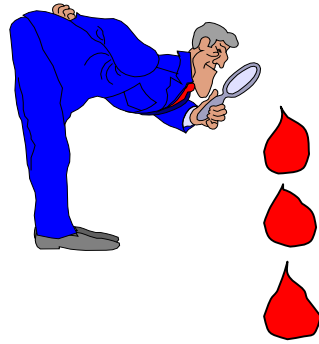


# ANOTHER *BLOODY* NEWSLETTER!

## June 2002

**Welcome:** Please welcome our new Emergency Techs: Katrina Morgan and Godlin Wall. Katrina is currently a freshman veterinary student and Godlin is a CSU student in animal science.



**Lab Supplies:** We stock routine lab supplies for the VTH. If you need extra supplies for an upcoming research project, please let us know in advance. We can do special orders for you. Also, please notify us when you take the last item, so we can re-order them. Thanks!

**Electrolytes:** Sodium and Potassium can be done quickly on the ABL 505 Blood Gas Instrument using whole blood (Bicarbonate is included in the report). If Chloride is needed, the Hitachi 917 is used, requiring serum or heparin plasma.

**Refractometers** (use and care): These should be checked daily with distilled or deionized water for a reading of 1.000. Tap water is not appropriate. Calibrate if the reading differs from 1.000 by more than 1/2 of a division.

To insure a sharp line for reading results and to avoid scratching the prism, close the sample cover and fill the prism area by capillary action. Make sure the prism is clean and dry prior to filling, and avoid samples with lipemia or hemolysis.

### **New Bile Acids Procedure:**

As of May 16<sup>th</sup>, we are running the Diagnostics Chemicals Ltd. Bile Acids test. Its main improvement over the previous procedure is the lack of interference from increased Bilirubin, Hemolysis, or Lipemia (unless these factors are extremely elevated).

### **Reference Intervals (Normals) Update:**

The CBC and Diagnostic Panel reference intervals for dogs, cats, and horses were updated May 17<sup>th</sup> to reflect minor shifts that have occurred. Please inform Dr. Linda Vap with any concerns regarding the changes.

### **CE: The Influence of Monoclonal Immunoglobulin on Serum Phosphorous:**

The automated method used by CSU-VTH Clinical Pathology for the assay of inorganic phosphorous can lead to erroneous results in the presence of monoclonal immunoglobulins. Falsely elevated results are caused by the precipitation of the monoclonal immunoglobulins in the reagent-sample mixture.

Multiple myeloma is the most common cause of monoclonal gammopathy in small animal patients, but still remains an uncommon diagnosis. It is predominately found in dogs, and is rare in cats and horses. Multiple myeloma is a tumor of more mature plasma cells, which typically secrete IgG and IgA in relatively equal proportions. IgG is the predominant immunoglobulin in cases occurring in cats. Other causes of monoclonal immunoglobulins can be canine ehrlichiosis, feline infectious peritonitis (FIP), chronic pyoderma, leishmaniasis, amyloidosis, and plasmacytic gastroenteritis.

#### References:

Bakker A., Bosma H., Christin P. Influence of monoclonal immunoglobins in three different methods for inorganic phosphorus. *Ann Clin Biochem* 1990; **27**:227-231.

Feldman, B., Jain, N., Zinkl, J., Schalm's Veterinary Hematology, 5<sup>th</sup> Edition, 2000.

Respectfully submitted by Cherie Heger

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