

ANOTHER *BLOODY* NEWSLETTER!

June 2009

Hello again! Cherie Heger has returned from retirement and is continuing the Clin Path Newsletter tradition along with her high quality technical duties!

Welcome to Juliana Wilcox, our new Emergency Tech!



WE'RE MOVING! The new **Diagnostic Medicine Center** (DMC) is a 3- story, 90,000 sf building that will house Clinical Pathology, the Veterinary Diagnostic Lab, the CSU Extension Veterinarian and the APhi Lab. Our main analyzers will be moved on the 24th after completion of a 1st morning run on samples turned in by ~8:30am. After this time, samples can be turned in at the Clin Path windows accessible via the enclosed extension of the eastern-most north-south running VTH hallway. We are the first lab on the left. Later submissions will be run on backup equipment or completed ASAP after the instruments are back up and running.

The ABL 800 Blood Gas Analyzer and the Osm3 Hemoximeter will remain at their present location in the Student Lab in the VTH and our staff will continue to support them. The ABL 800 will require “unique user ID’s” in order to run samples on it, using the last four digits of your CSU ID. Please arrange (re)training with Clin Path ASAP; generic “log-ins” will be deactivated after the move.

Clin Path Lab hours will remain the same:

Routine business hours:

Monday – Friday 8 a.m. – 5 p.m.

Emergency hours*:

Monday – Friday: 5 p.m. – 8 p.m.

Saturday: 8 a.m. – 8 p.m.

Sunday: 8 a.m. – 2 p.m.

Holidays: 8 a.m. – 2 p.m.

*An emergency tech is on call past these hours.

Clin Path prices will change effective July 1; many are decreasing in price, and most after-hours submissions will be the same as regular submissions. Many Dlab prices are increasing.

CE: Case Example of a “Sampling error”:

Recently, samples from an 8 year old dog were submitted for a CBC (purple-top EDTA tube) and chemistry panel (red-top tube). Significant chemistry results were a Total Calcium of 1.5 mg/dl, Potassium of 11.0 meq/L, and Magnesium of 0.5 mg/dl.

Rechecking the serum on the ABL 800 Blood Gas Analyzer gave these results: Ionized Calcium = 0.24 mMol/L and Potassium: = 11.0 mEq/l. (To convert the Ionized Calcium in mEq/L to mg/dl, multiply the results by 4. Ionized calcium is approximately 40% of the Total Calcium.)

The clinician stated that when the blood was drawn for the tests, the EDTA tube was filled first, and then the same needle was used to fill the red-top tube.

A new sample for an “Ionized Ca/Lytes” obtained the following results:

Ionized Ca = 1.35 mmol/L

Potassium = 3.8 meq/L

The first results were erroneous because of the EDTA contamination. The calcium and magnesium are low because they are bound by EDTA. The Alkaline Phosphatase may be low because magnesium is used in the reaction for determining ALP activity. The potassium was falsely elevated because the EDTA anticoagulant contains potassium (K₃ – EDTA).

The correct order of tubes (common tubes **bolded**) during blood collection whether by syringe or vacutainer is:

1. Blood Culture
2. **Na-Citrate (blue top)**
3. **Clot (red top)**
4. **Heparin (green top)**
5. **EDTA (lavender top)**
6. Na-Fl (grey top)

Reference:

<http://www.orderofdraw.com/historyofdraw1.html>

Respectfully submitted by Cherie Heger