UNIVERSITY OF CALGARY

FACULTY OF VETERINARY MEDICINE

The Work-Up

Diagnostic Services Unit | Issue 19 - July/August, 2025

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DSU Announcements

Holiday Closures:

Canada Day: Tuesday, July 1, 2025

Heritage Day: Monday, August 4, 2025

Labour Day: Monday, September 1, 2025

Dr. Jennifer Davies, Director, DSU is on sabbatical from July 1, 2025 to June 30, 2026. Dr. Maria Bravo Araya will be stepping into the role as Director.

The DSU molecular lab will open in mid to late July, 2025. Watch your email for an update which will also include the 2025 DSU Fee Schedule.

The DSU Cytology Service is closed until further notice. All cytology submissions will be sent out during this time.

Molecular Diagnostics

Molecular diagnostics is a powerful tool that uses DNA or RNA analysis to identify viruses, bacteria, parasites and fungi that can affect animals. The new molecular diagnostics lab at the DSU will offer a variety of tests using real-time PCR technology to detect and characterize infectious agents with precision. The lab will leverage cutting-edge technology and benefit from the expertise of highly skilled professional and technical staff specialized in molecular diagnostics. By providing accurate and timely results, the lab will support veterinarians and researchers in making well-informed decisions regarding animal care and disease management.

The new Molecular Diagnostics Lab at the DSU will have a significant positive impact on animal health in Alberta in several ways:

1. **Early Detection and Prevention**: By identifying pathogens quickly and accurately, the lab will enable early intervention, preventing the spread of diseases and reducing the severity of outbreaks.
2. **Targeted Treatments**: With precise identification of infectious agents, veterinarians can prescribe more effective treatments, minimizing the risk of antimicrobial resistance.
3. **Enhanced Research**: The lab will be open to collaboration with researchers from the University of Calgary's Faculty of Veterinary Medicine (UCVM), driving innovation and generating new data on animal health in Alberta.
4. **Support for Public Health**: By controlling zoonotic diseases (those that can be transmitted from animals to humans), the lab will also contribute to safeguarding human health.

The Molecular Diagnostics Lab team includes veterinary virologist, Dr. Maria Bravo Araya and technical staff Sandra Damianos (Molecular Lab Supervisor) and Chloe Ingham (Molecular Lab Technician). *Check out their profiles in Issue 16 (January/February 2025) of The Work-Up!*

Sample Preparation and Extraction Lab

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The Work-Up

Diagnostic Services Unit

Issue 19 - 2025

DSU Team

Anatomic Pathologists:
Dr. Jennifer Davies *(on sabbatical)*
Dr. Dayna Goldsmith
Dr. Ashish Gupta
Dr. Cameron Knight
Dr. Carolyn Legge
Dr. Nicole Rose
Dr. Jamie Rothenburger
Dr. Katie Waine
Dr. Erin Zachar

Clinical Pathologists:
Dr. Angelica Galezowski
Dr. Catherine Wagg
Dr. Amy Warren *(on leave)*

Microbiologist:
Dr. Beverly Morrison

Parasitologist:
Dr. Sawsan Ammar

Virologist:
Dr. Maria Bravo Araya

Support Staff:
Jim Carlsen
Nancy Coulter
Sandra Damianos
Travis Davidson
Dr. Manga Devi
Dr. Camila Meira
Mai Farghaly
Patrick Fuller
Karan Gadani
Lori Goodbrand
Chloe Ingham
Lilit Karapetyan
Jennifer Larios
Kelsey Lennon
Mel Nicolas
Ciara O'Higgins
Dr. Lindsay Rogers
Sara Skotarek Loch
Melanie Stenner
Emery Ucol

DSU Contact Information
https://vet.ucalgary.ca/DSU
E-mail: dsu@ucalgary.ca
Phone: 403-220-2806
Clinical Skills Building
11877 85th Street NW
Calgary AB, T3R 1J3

Samples & Shipping Info:

The Molecular Diagnostics Laboratory will accept a diverse range of samples, including fresh and frozen tissues, feces, serum, blood collected in EDTA (purple top) tubes, and swabs collected in viral transport media, liquid culture media, or sterile saline.

Please note that fixed tissues, heparinized blood (green top tubes), and swabs collected in gel culture media **will not be accepted for testing.**

Amplification Lab

To ensure diagnostic efficiency and accuracy, samples should be correctly labeled and well-packaged. This includes using leak-proof inner and outer containers, placing labeled specimens in their own containers and bags, and keeping the submission form separate from samples. Please make sure the labels on the samples match the submission form, especially when sending samples from multiple animals under the same submission. Providing clear information about tests required and a brief history on the submission form will help avoid delays in the diagnostic process.

Proper storage of samples before submission is crucial to maintain their integrity and ensure accurate diagnostic results. Here are some general guidelines:

1. **Fresh Tissues**: Store in a sterile, leak-proof container and keep refrigerated at 4°C. Ideally, submit within 24-48 hours. If longer storage is necessary, refrigerate at 4°C and submit within 72 hours.
2. **Frozen Tissues**: Can be stored for several weeks at -20°C or lower. Ensure they remain frozen during transport.
3. **Feces**: Best if submitted within 24-48 hours. Collect in a clean, leak-proof container and refrigerate at 4°C. Do not freeze.
4. **Serum**: Separate serum from the clot and store in a sterile tube. Can be stored refrigerated at 4°C for up to 7 days. For longer storage, freeze at -20°C.
5. **Blood in EDTA Tubes**: Should be submitted within 24-48 hours. Store at 4°C. Do not freeze.
6. **Swabs in Viral Transport Media, Liquid Culture Media, or Sterile Saline**: Can be stored refrigerated at 4°C for up to 72 hours. Do not freeze.

Always follow specific instructions provided by the laboratory for any particular sample type. Proper storage helps maintain sample integrity and ensures accurate diagnostic results. Clear labeling and packaging, as mentioned earlier, are also essential to ensure the samples are processed efficiently and accurately.

If you have any specific questions about storing a particular type of sample, feel free to contact us!

Clean Room

Tests offered at opening:

- Bovine Viral Diarrhea virus (BVD)
- Cache Valley Virus
- Equine Herpes Virus (EHV) 1 & 4
- Porcine Circovirus (PCV) 2 & 3
- Porcine Reproductive & Respiratory Syndrome virus (PRRS)
- *Streptococcus equi* ssp. *equi* & *zooepidemicus*
- *Tritrichomonas foetus*