FY2009 (Abbreviated)

Operations

As the official laboratory of the Minnesota Board of Animal Health, the VDL contributes to the economy of Minnesota and surrounding states by responding to outbreaks of animal diseases (e.g., highly pathogenic strains of avian influenza, swine influenza, and other zoonotic diseases), thus protecting the livestock and poultry industries. Also, VDL’s faculty is actively involved in research projects on emerging disease identification, new test development, and disease prevention.

During 2008-2009, the VDL evaluated 65,711 accessions for disease investigations. A total of 1,487,833 laboratory tests were conducted including 8,332 postmortem examinations at the St. Paul facility. Like other University services, the VDL’s diagnostic activity was not immune to the worst financial crisis seen in decades. Total test procedures in 2008-2009 decreased by 16% as compared to those in 2007-2008. However, the total accessions submitted for 2008-2009 were only reduced by less than 2% from previous year, indicating that VDL’s client base remains strong. Market demand for animal health surveillance and VDL’s high quality service are keys for the retention of its valued customer base.

As of June 2009 the VDL staff consists of 16 faculty members, 6 pathology residents, 81.7 full-time equivalent (FTE) bargaining unit employees, and 7.75 full-time equivalent (FTE) student employees.

Funding

Financial constraints, especially under the current environment of deep budget cuts at both the state and university levels have been a big challenge for VDL’s operation. In August 2008, AAVLD’s accreditation team visited the VDL and made the following comments in the Executive Summary of its Accreditation Audit Report:

“The Minnesota Veterinary Diagnostic Laboratory System is a very busy, robust diagnostic laboratory system with dedicated faculty and staff... The site visit team met with representatives of the Advisory Committee and found strong, enthusiastic support with all commenting on the quality of results provided in a timely manner. These stakeholders all recognize the critical mission the MVDLS provides for Minnesota’s agricultural industry and public health zoonosis. The most serious issue facing the MVDLS is a critical lack of state financial support. The laboratory’s operating budget is roughly $13.7 million with general revenue from the state at $1.7 million dollars plus another $1.47 million from Central Allocation representing about 20% of the operating budget. Funds generated from service fees are approximately $10.9 million which represents 79.5% of the operating budget. Salaries alone represent almost $6.5 million or 47.5% of total expenses. This leaves the Laboratory extremely vulnerable to swings in disease testing...”
The AAVLD’s review has been seriously considered by the University, which supported legislation during the 2009 Minnesota legislative session to increase funding for VDL disease surveillance. The bill received strong support in both the House and the Senate but, due to the current economic situation, no new funding could be identified to support this proposed legislation. However, the University made the decision to fund $350,000 in recurring funds, starting in FY10. In addition, the University has committed the use of additional Federal ARRA State Fiscal Stabilization Fund to provide bridge funding as we develop and implement plans to deal with VDL long term financial stability. Also, the VDL has received $700,000 from federal stimulus money for the next two years.

**Highlight of Accomplishments**

VDL received full accreditation from the American Association of Veterinary Laboratory Diagnosticians for a period of five years.

VDL began offering two new genetic tests, one for Exercise Induced Collapse (EIC) of dogs and the other for Polysaccharide Storage Myopathy (PSSM) of horses. The technology transfer to VDL was made possible by research discoveries made via collaboration with scientists in the College of Veterinary Medicine.

The VDL came to the aid of the poultry and swine industries by supporting the Minnesota Board of Animal Health's emergency response to outbreaks of avian influenza in poultry. Also, in collaboration with the USDA National Animal Health Laboratory Network (NAHLN) and Minnesota Pork Producers, the VDL helped design diagnostic strategies to prevent the spread of human novel H1N1 transmission to swine herds throughout Minnesota.

Through surveillance under a cooperative agreement with the USDA, the VDL identified an elk herd infected by chronic wasting disease (CWD). The VDL is now working with the USDA and MBAH to contain this infection by depopulating and testing the herd to ensure CWD does not spread into Minnesota’s wild deer population.

Through novel cooperative funding between Olympus Imaging and USDA equipment funds, the VDL improved the quality of its transmission electron microscopy equipment suite. New imaging equipment thus provided will enable the VDL to produce state-of-the-art images for research, publication and diagnostics.

BSL-3 necropsy lab was successfully certified by the AHC biosafety level-3 committee. It will now be used to mitigate risk of zoonotic disease transmission to VDL employees working with animal tissues.

VDL launched a new Diagnostic Ultrastructural Pathology service in April 2009. This new diagnostic effort is offered only through a few laboratories in the nation, which will provide services on ultrastructural pathology and identification of disease pathogens of domestic animals and wildlife.
Dr. Rob Porter received Minnesota Turkey Growers Association President's Award for his outstanding contributions to the Turkey Cellulitis (Clostridial dermatitis) Gold Medal research panel.

**Grants Received**

Investigation of the Multiple-Malformation Syndrome in Llamas and Alpacas Associated with Choanal Atresia, funded by Morris Animal Foundation (MAF). The research will focus on identifying the mutant gene encoding the diseases and developing method to separate the diseased animal from the herd. Full Sponsor: Alpaca Research Foundation, Inc., US$ 62,816.00. PI: Dr. Anibal G. Armien

Preliminary studies into the role of gut condition in ‘Light Turkey Syndrome.’ MTGA. US$84,140.00 (2008-09). PI: Dr. Sally Noll

The Common Biome: Integrating Health of Wildlife, Livestock and the Environment in Shared Landscapes. Institute on Environment, University of Minnesota. $US75,000.00 (2008-09). PI: Dr. Sagar Goyal

In vivo evaluation of antiviral compounds against swine influenza virus. Knock-out Technologies, Scottsdale, AZ. US$81,914.00 (2009). PI: Dr. Sagar Goyal

Measurement of particle sizes associated with airborne viruses. NIOSH. US$1,490,500.00 (2008-2012). PI: Dr. Sagar Goyal
