FY2006 (Abbreviated)

The VDL evaluated 68,201 accessions, an increase of 3.9% from the previous year. Each accession represents a request for laboratory assistance to address animal or public health concerns. A total of 1,475,523 laboratory tests were conducted, representing an increase of 18% from the previous year. The staff consisted of 24 faculty members (10.5 FTE), 85 support staff (82 FTE) and 25 part time student employees.

In cooperation with the Academic Health Center, University of Minnesota Facilities Management, and the Department of Environmental Health and Safety, the pre-design phase of the VDL Biosafety Level 3 Necropsy Laboratory was completed. The expansion of the VDL necropsy facilities will provide biocontainment space suitable to safely diagnose airborne zoonotic pathogens such as avian influenza. The University of Minnesota provided $2.15 million of funding for the new necropsy facility. In addition, the Minnesota legislature provided $300,000 for maintenance and renovation of the Minnesota Poultry Testing Laboratory in Willmar, MN. The renovation, scheduled for completion by the end of June 2006, will expand laboratory testing capacity needed for avian influenza ('bird flu') diagnosis.

New diseases continued to plague Minnesota agriculture and wildlife. Bovine tuberculosis was found in 5 northwestern Minnesota beef herds causing Minnesota to lose its tuberculosis (TB) free status for the first time since 1976. In response to detecting TB in Minnesota, the VDL collaborated with the Minnesota Board of Animal Health, Minnesota Department of Natural Resources, and the USDA to increase TB surveillance. During the hunting season of 2005 and in the spring of 2006, Mycobacterium bovis infection was detected in two wild white-tailed deer in proximity to the TB-infected beef herds. The TB surveillance will increase to more than 5,000 deer and 1,500 cattle herds in 2006-2007 in an attempt to regain USDA TB-free status.

A new swine disease, Porcine Circovirus Associated Disease or PCVAD, has emerged as a major health threat to the Minnesota swine industry. With the increase in cases, new diagnostic services including immunohistochemistry, serology, polymerase chain reaction, and virus sequencing procedures were rapidly introduced to provide more accurate diagnostic information and limit disease transmission. Research on PCVAD was expanded by mobilizing Minnesota Agricultural Experiment Station Rapid Response Funding. Using sample submissions from past and current diagnostic cases, viral genetic sequences were studied to determine the role of novel circoviruses in the clinical syndrome. Members of the VDL staff also contributed to practitioner education programs by presenting seminars at regional and national meetings and by serving on industry panels.

In response to the emerging worldwide threat of avian influenza, the VDL collaborated with the USDA and Department of Interior to expand avian influenza surveillance in wildlife and commercial and noncommercial poultry. Influenza diagnostic capabilities were enhanced by implementing new test methods that rapidly detect, subtype and sequence multiple influenza subtypes by PCR. Minnesota is now considered one of the most well prepared states for dealing with an avian influenza pandemic.
New and more cost effective diagnostic tests continue to be developed. A faster and lower cost polymerase chain reaction (PCR) test that detects North American and European strains of Porcine Reproductive and Respiratory Syndrome Virus (PRRS virus) in a single test format was developed and was licensed for use by other veterinary diagnostic laboratories.