The VDL evaluated 65,635 accessions in fiscal year 2005, an increase of 1.7% from the previous year. Each accession represents a request for laboratory assistance because of animal or public health concerns. A total of 1,255,553 laboratory tests were conducted representing an increase of 9% from 2004. The staff consists of 21 faculty members (10.5 FTE) 95 staff (93.1 FTE), and 29 student employees.

The accomplishments of VDL faculty and staff in FY2005 were enormously significant. The VDL was formally recognized by statute as the official laboratory of the Minnesota Board of Animal Health. In addition, the legislature appropriated $600,000 to the Minnesota Board of Animal Health for the first time to help the VDL expand animal disease surveillance and protect animal agriculture and public health. The VDL became a funded member of the National Animal Health Laboratory network (NAHLN) of the US Department of Agriculture.

Two construction projects were completed: a $1.5 million project to renovate the first floor of building 385A and a $2.7 million project to install a biohazardous waste disposal system (“Tissue Digester” manufactured by WR 2). The renovated laboratory space was operational on October 1, 2004 and a dedication ceremony was held on January 28, 2005. The newly renovated space contains a state-of-the-art molecular diagnostic laboratory and microbiology laboratory for the diagnosis of Johne’s disease and mastitis.

The VDL molecular laboratory is now among the most advanced and highest volume laboratories in the United States capable of testing 500-750 samples/day with same day results for many of the tests. The molecular laboratory grew from 9 to 11 full time staff and the number of molecular tests increased from 126,544 to 128,360. VDL scientists developed a new molecular test to simultaneously detect North American and European strains of PRRS virus. The new technology promises to transform PRRS diagnosis by providing more accurate and sensitive detection of PRRS virus at half the cost.

The Tissue Digester was put to timely use to dispose of cattle from the first Minnesota herd diagnosed with bovine tuberculosis (Mycobacterium bovis) since 1971. The impact of bovine tuberculosis on the VDL and Minnesota livestock industries could be significant if the disease has spread to other Minnesota livestock herds or to wildlife.

In collaboration with the Minnesota Department of Natural Resources, an epidemiologic survey was conducted for the presence of chronic wasting disease in Minnesota white-tailed deer. The VDL tested more than 12,000 deer samples from across the state. All deer were negative for chronic wasting disease.

A noteworthy discovery resulting from VDL disease investigations was the identification of a novel strain of influenza virus in swine. This H1N1 influenza virus is the result of reassortment between human H1N1 and swine H3N2 viruses. Through cooperative efforts among the
submitting veterinarians, pork producers, animal health companies, and researchers, the virus was quickly identified as unique and customized serological tests were performed for surveillance of surrounding herds. Investigations are ongoing to determine the impact this novel strain may have on the US pork industry and public health.