

Contact: Jean Friedrich

**IOWA STATE UNIVERSITY – EQUIPMENT PURCHASE AND FINANCING**

**Action Requested:** Consider recommending to the Board authorization for the Executive Director to approve the purchase and financing of up to \$3.4 million for Radiological Diagnostic Equipment for the Veterinary Teaching Hospital at Iowa State University.

**Executive Summary:** The Iowa State University Veterinary Teaching Hospital is the state's primary health resource for livestock and companion animals, with an objective of providing outstanding animal health care based on the integration of clinical practice, teaching, research, and service. The College of Veterinary Medicine is currently on limited accreditation primarily due to deficiencies in its facilities and equipment. The College of Veterinary Medicine capital project, for which the Board approved the schematic design at its November 2005 meeting, and updated equipment are key factors to regaining full accreditation. Better facilities and equipment are also necessary to attract and retain premier faculty, researchers, students, and to provide improved outreach services.

Digital radiography (DR) is a method of scanning body systems that can be used for early disease detection, diagnosis, staging, biopsy, and treatment guidance. The Radiological Diagnostic Equipment to be purchased consists of four systems which would be temporarily housed in a modular building.

- Telsa Magnetic Resonance Imaging System (MRI)
- Computed Tomography System (CT)
- Flexible Digital X-ray Units (DX)
- Picture Archive and Communications System (PACS)

Digital radiography technology uses electronic detectors that eliminate the use of film, cassettes, film processors, and file cabinets for storage. The MRI and CT systems scan the images, the DX system electronically stores the images, while the PACS system allows for cataloging and fast and easy retrieval of images from almost any computer interface. Many private practices and several veterinary teaching hospitals in the United States are using DR. Referring veterinarians will be able to transmit their digital images directly to ISU radiology for consultation.

A radiology residence-training program will be added in FY 2007. The radiology residency program and several other residency programs including neurology and oncology require training in both the MRI and CT. Successful residents must be able to interpret the results of CT and MRI studies to successfully pass the board certification examinations. If this technology is not available at ISU, residents will need to extern at other institutions to complete their credentials and prepare for the examination.

The MRI and CT units will position the Veterinary Teaching Hospital to provide additional services such as radiation therapy that are currently not available for companion animals in the state of Iowa.

The PAC system will allow the Veterinary Teaching Hospital to consolidate images from all forms of image acquisition equipment (ultrasound, CT, MRI, digital radiography, and fluoroscopic studies). These images will be used to develop a data base of information concerning disease states, response to treatment, and disease progression that are essential to developing best practice standards for diagnosis and treatment.

The University is currently in the process of soliciting bids for the equipment purchase. Bids are due in late January. The estimated cost of the equipment, software, and building is \$3,400,000, as follows:

Telsa Magnetic Resonance Imaging System (MRI)	\$1,400,000
Computed Tomography System (CT)	800,000
Flexible Digital X-ray Units (DX)	400,000
Picture Archive and Communications System (PACS)	450,000
Temporary Modular Building (equipment to be relocated to new or remodeled facility)	250,000
Facilities Property and Management	<u>100,000</u>
Total	\$3,400,000

The University plans to finance the purchase of the equipment. Based upon an estimated interest rate of 5.01% and a five-year financing period, the semi-annual payments for the equipment would be approximately \$393,000. The University proposes to use the Board's master lease or vendor financing, depending upon the most favorable interest rate. Lease payments would be made from revenue generated from the Veterinary Teaching Hospital. The revenue would be primarily derived from income generated by the use of the equipment. The current charge for MRI studies is \$800 and CT scans are billed at \$625. Increased annual revenue based on current caseloads where these procedures are indicated is \$700,000, although revenues are not expected to immediately increase to this amount. It is anticipated that there will be some disruption to hospital services during construction of the Veterinary Medicine facility. Based upon the amount to be financed, FY 2007 fees may need to increase by more than 11%, which is the increase currently projected. The department has agreed to use gift revenues, if needed, for the lease payments on the equipment.

Based on the financial plan prepared by the Veterinary Teaching Hospital and endorsed by the Dean of the college, the University is requesting that the Board authorize the Executive Director to approve purchase and the financing subject to completing the necessary bidding procedures, borrowing, and legal requirements.

University representatives will report at the Board meeting on the bids and their plans for the purchase.