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UNIVERSITY OF IOWA EQUIPMENT PURCHASES

Actions Requested:

- Ratify the Executive Director's March 30, 2015, approval for the University of Iowa to purchase and install an Intuitive Surgical da Vinci Xi Dual Console Robotic Surgical System for $2,158,000; and
- Approve the University of Iowa's request to purchase a Siemens Medical Solutions USA Incorporated Somatom FORCE Computed Tomography (CT) Medical Imaging System for $2,000,000.

Executive Summary: Equipment purchases at the Regent institutions costing more than $1 million are required by Board policy to be approved by the Board. The Executive Director may approve emergency purchases exceeding $1,000,000 to be followed by Board ratification.

The Board's Policy Manual defines emergency purchases as purchases that are critical to sustaining patient care or human life, maintaining critical research equipment, or similar instances. Emergency purchases may also be defined as those purchases that are time sensitive.

INTUITIVE SURGICAL DA VINCI XI DUAL CONSOLE ROBOTIC SURGICAL SYSTEM

Description of the Equipment
The robotic surgical technology allows surgeons to perform complex and routine procedures through a few small incisions, similar to traditional laparoscopic surgery.

The da Vinci system uses three-dimensional, high definition cameras to provide visualization of the surgical site inside the patient's body. The robotic surgical instrumentation bends and rotates far greater than the human wrist is capable of, leading to smaller, more precise movements throughout the procedure.

UIHC utilizes robotic technology to provide care for general surgical, gynecological, otolaryngologic, cardiothoracic, and pediatric patient populations.

Justification of the Need for the Equipment
The University reports that:

- The purchase of a Surgical da Vinci Xi robotic surgical system ("the system") is critical to the University of Iowa Hospitals and Clinics (UIHC) Nursing Perioperative department as it will allow for the replacement of an existing da Vinci robotic system that failed twice in March. One failure resulted in the robotic procedure being aborted and a laparoscopic surgery performed. The second instance resulted in the procedure being canceled. The equipment was scheduled for replacement through regular upgrade processes;
- The existing da Vinci robotic system, purchased in 2007, is nearing the end of its useful life and will be installed in the robotics training lab. It is one of two da Vinci robotic units within UIHC and both are used concurrently nearly every day. Neither robotic unit is used as a backup for the other unit; and
- If the equipment is not replaced, physicians and patients will not receive the benefits available through technical and clinical diagnostic improvements. Also, continuing to use the existing equipment will result in increased repair costs.

Any Known Alternatives to the Equipment Proposed
The da Vinci is the only Food and Drug Administration approved robotic surgery technology.

Estimated Cost and Source of Funding
The cost for the system is $2,158,000 after the $200,000 trade in credit for a standard da Vinci robotic system (currently in the robotics training lab) is deducted; a two-year service warranty is included. The source of funding is UIHC equipment funds.

SIEMENS MEDICAL SOLUTIONS USA INCORPORATED SOMATOM FORCE CT IMAGING SYSTEM

Description of the Equipment
X-ray computed tomography (CT) is a technology that uses computer-processed x-rays to produce tomographic images (virtual slices) of specific areas of the scanned body part, allowing the user to see what is inside it without cutting it open.

Digital geometry processing is used to generate a three-dimensional image of the inside of an object from a large series of two-dimensional radiographic images taken around a single axis of rotation.

Justification of the Need for the Equipment
The University reports that:

- The Siemens FORCE CT scanner is requested by the University of Iowa Carver College of Medicine Radiology department for CT research conducted across the entire campus;
- The system is being acquired to support research efforts of seven actively funded National Institutes of Health (NIH) investigators with six current research projects located in the colleges of Medicine and Engineering as well as other users on an as needed basis located in the colleges of Medicine, Engineering, Dentistry, Public Health, and Liberal Arts and Sciences. Over the past 10 years, the CT research facility has supported over 70 internally and externally funded research projects;
- The FORCE CT scanner provides significant improvements in speed, resolution, and dual energy capabilities compared to current CT scanners in the marketplace, including the Siemens SOMATOM FLASH CT scanner currently in use in the CT research facility at the University of Iowa;
- The FORCE CT scanner will be installed in the current location of the existing FLASH CT scanner due to the electrical and power requirements necessary to operate the unit. The existing FLASH CT scanner, purchased in 2009, will be traded in as part of the purchase of the FORCE CT scanner; and
- The new scanner will be integrated into the Iowa Institute for Biomedical Imaging (IIBI) and utilization will be handled through the University of Iowa Institute of Clinical and Translational Science scheduling system.

Any Known Alternatives to the Equipment Proposed
The equipment pricing is based on the Strategic Alliance Purchasing Agreement between Siemens Medical Solutions USA, Inc. and the University of Iowa. This agreement was executed after a competitive bidding process involving eight vendors. When the initial strategic alliance agreement reached the end of its term, it was extended to 2018.

The price of the Siemens FORCE CT Imaging System represents an approximate 37% savings off list prices. University of Iowa Hospitals and Clinics has standardized on Siemens equipment due to the advantages gained in equipment pricing, maintenance, and training.

Estimated Cost and Source of Funding
The cost for the Siemens Somatom FORCE CT Imaging System is $2,000,000 after the $1,000,000 trade in credit for the FLASH CT scanner is deducted. The source of funding is National Institutes of Health High End Instrumentation grant funds.

Board Policy: Chapter 7.06B(12) of the Regents Policy Manual requires that:

- Equipment costing more than $1,000,000 must be submitted to the Board for approval. The Executive Director may approve emergency purchases which exceed $1,000,000 to be followed by Board ratification; and
- Requests submitted to the Board Office for approval must include the following information:
  - Description of the equipment;
  - Justification of the need for the equipment;
  - Any known alternatives to the equipment proposed; and
  - Estimated cost and source of funding.
