

Contact: Patrice Sayre

### UNIVERSITY OF IOWA EQUIPMENT PURCHASE

**Action Requested:** Approve the purchase of a General Electric Company Discovery MR750W 3.0 Tesla Whole Body Magnetic Resonance Imaging (MRI) Scanner for \$1,900,000.

**Executive Summary:** Equipment purchases at the Regent institutions costing more than \$1 million are required by Board policy to be approved by the Board of Regents.

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#### Description of the Equipment

Magnetic Resonance Imaging makes use of the property of nuclear magnetic resonance (NMR) to image nuclei of atoms inside the body. MRI can create more detailed images of the human body than are possible with x-rays. The GE Discovery MR750W 3.0 Tesla is the only scanner with the time-of-flight imaging capabilities, larger frame of view, and Positron Emission Tomography (PET) insert upgradability.

#### Justification of the Need for the Equipment

University of Iowa Department of Radiology reports that the GE Discovery MR750W 3.0 Tesla will:

- ▶ Expand the number of radio frequency (RF) channels available;
- ▶ Provide new high density RF coils, time-of-flight imaging capabilities, and show a larger frame of view;
- ▶ Enable higher resolution imaging and image contrasts. which will provide improved imaging in young children and imaging around metallic implants;
- ▶ Integrate with the existing GE 7 Tesla scanner to provide a single, unified software platform for the translation of image findings between the two GE MRI Scanners;
- ▶ Permit future expansion with a Positron Emission Tomography (PET) insert
- ▶ Replace an existing Siemens Trio 3 Tesla MRI scanner that has been in use for seven years, is reaching the end of its technological useful life and is not capable of performing the desired applications.

Supporting research efforts across the university, the scanner equipment will be used by the departments within the Carver College of Medicine, College of Engineering and College of Liberal Arts & Sciences. In addition, central instrumentation research facilities like the PET Imaging Facility and the Magnetic Resonance Research Facility also will use this equipment. .

#### Any Known Alternatives to the Equipment Proposed

A sole source purchase justification was received and approved by the Purchasing Department. The GE Discovery MR750W 3.0 Tesla is the only scanner with the time-of-flight imaging capabilities, larger frame of view, and PET insert upgradability.

#### Estimated Cost and Source of Funding

The cost for the GE Discovery MR750W 3.0 Tesla Whole Body MRI scanner is \$1,900,000, which includes a \$150,000 credit for the trade in of the Siemens Trio 3 Tesla MRI scanner. The university is continuing negotiations with the vendor seeking additional discounts. The source of funding is College of Medicine gifts and earnings; College of Engineering gifts; College of Engineering General Education Funds; College of Liberal Arts and Sciences General Education Funds.

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**Background:** 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; 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.