

### Healthcare Sector Imaging & IT Division

#### **Siemens Marks First U.S. Installation of SOMATOM Definition Flash CT System**

Mayo Clinic offers its patients shorter CT exams at the lowest dose

**Malvern, Pa., April 27, 2009 – Highlighting lowest dose and fastest speed, Siemens Healthcare ([www.usa.siemens.com/healthcare](http://www.usa.siemens.com/healthcare)) announces Mayo Clinic in Rochester, Minn., as the first medical facility in the United States to offer patients the innovations of the SOMATOM® Definition Flash dual-source computed tomography (CT) scanner. The SOMATOM Definition Flash requires only a fraction of the radiation dose that systems previously required to scan even the tiniest anatomical details. The fastest scanning speed in CT (i.e., 43 cm/s) and a temporal resolution of 75 ms enable complete scans of the entire chest region in just 0.6 seconds. Thus, clinicians now have the option of not requiring their patients to hold their breath during the exam.**

“Interdisciplinary teamwork at Mayo, combined with industry collaborations like this, continues to support our hallmark mission of extraordinary patient care at Mayo. This second generation dual-source CT scanner offers new applications that can benefit our patients while minimizing risks,” said J.G. Fletcher, M.D., Mayo Clinic. “Reduced radiation dose and scanning speed provide new opportunities for routine use of dual energy CT. This technique helps to highlight pathologies, giving Mayo an additional tool in patient diagnosis and treatment.”

The SOMATOM Definition Flash operates at an extremely reduced radiation dose. For example, a spiral heart scan can be performed with less than 1 millisievert (mSv), whereas the average effective dose required for this purpose usually ranges from 8 mSv to 20 mSv. (In comparison: The amount of radiation the average person is exposed to each year from naturally occurring sources is about 3 mSv.)

“With the introduction of the SOMATOM Definition Flash, Siemens took on CT’s most pressing challenge and made dose reduction the centerpiece of our research,” said Kulin Hemani, vice president, Computed Tomography, Siemens Medical Solutions USA, Inc. “Its core innovation – the

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revolutionary Flash Spiral – was designed specifically to make CT exams much healthier for patients with Flash speed and lowest dose.”

The SOMATOM Definition Flash scanner was designed to reduce dose to patients. The X-CARE application selectively reduces the radiation exposure to dose-sensitive anatomical regions, such as the female breast, by as much as 40 percent. Furthermore, an adaptive dose shield blocks irrelevant pre-spiral and post-spiral radiation, thus ensuring that only a minimum and clinically essential radiation exposure occurs. This enables an additional 25 percent reduction of the dose required for routine examinations.

With more than 35 years in CT imaging, Mayo’s recent addition to its CT portfolio is part of ongoing collaborations between Siemens and Mayo’s CT Clinical Innovation Center. The mission of the Center is to evaluate and make available the latest imaging science and CT technology for the benefit of patient care.

The SOMATOM Definition Flash will help to usher in new levels of patient friendliness due to the speed of the scans. A full 2 meter scan requires less than 5 seconds; perfusion or dynamic vascular imaging becomes routine, and gated chest CTs become sub-second procedures. A scan of the entire heart, for example, can be performed in only 250 milliseconds, which is about one quarter of a heartbeat. Physicians can now reliably image a heart with a rapid or an irregular heartbeat without using beta blockers, simplifying the workflow and yielding clinical and financial advantages.

The **Siemens Healthcare Sector** is one of the world’s largest suppliers to the healthcare industry. The company is a renowned medical solutions provider with core competence and innovative strength in diagnostic and therapeutic technologies as well as in knowledge engineering, including information technology and system integration. With its laboratory diagnostics acquisitions, Siemens Healthcare is the first integrated healthcare company, bringing together imaging and lab diagnostics, therapy, and healthcare information technology solutions, supplemented by consulting and support services. Siemens Healthcare delivers solutions across the entire continuum of care – from prevention and early detection, to diagnosis, therapy and care. Additionally, Siemens Healthcare is the global market leader in innovative hearing instruments. The company employs around 49,000 people worldwide and operates in 130 countries. In the fiscal year 2008 (Sept. 30), Siemens Healthcare reported sales of €11.2 billion, orders of €11.8 billion, and Sector profit of €1.2 billion. Further information can be found by visiting <http://www.siemens.com/healthcare>.