

Healthcare Sector Imaging & Therapy Systems Division

Siemens Completes Phase II Trial for PET Biomarker

Continuing the fight against cancer, Siemens researches an oncology imaging biomarker designed to facilitate imaging of hypoxic tumor regions

Malvern, Pa., Sept. 28, 2011 – The Molecular Imaging Biomarker Research Group of Siemens Medical Solutions USA, Inc., recently completed a Phase II multi-center clinical trial of its HX4 positron emission tomography (PET) imaging biomarker, which is designed to detect hypoxia – a reduction in tissue oxygen levels – in solid tumors. The trial’s primary objective was to test the reproducibility of HX4’s uptake in tumors by conducting PET/computed tomography (CT) scans of the same patient on sequential days in a test-retest protocol. The trial enrolled 40 patients with head and neck, lung, liver, rectal or cervical cancers, who were scheduled to receive chemotherapy, radiation therapy or a combination of the two.

Solid tumor hypoxia develops when the vascular system is unable to supply the growing tumor mass with adequate oxygen, leaving portions of the tumor with lower oxygen levels than healthy tissues. Hypoxic tumors are more resistant to radiotherapy and chemotherapy, resulting in overall poor outcomes. By developing an imaging biomarker that detects tumor hypoxia, Siemens hopes to provide oncologists with more specific information regarding tumor cells that can be used in the fight against cancer.

“This Phase II trial supports Siemens’ efforts to develop new imaging biomarkers that enable personalized treatments,” said Hartmuth Kolb, Vice President, Siemens Molecular Imaging Biomarker Research. “By providing the integrated value chain of oncology tools – from imaging biomarkers to imaging systems such as the Biograph family of products and our software solutions to analyze and quantify results – Siemens Molecular Imaging gives oncologists the diagnostic tools to care for their patients.”

The **Siemens Healthcare Sector** is one of the world's largest suppliers to the healthcare industry and a trendsetter in medical imaging, laboratory diagnostics, medical information technology and hearing aids. Siemens offers its customers products and solutions for the entire range of patient care from a single source – from prevention and early detection to diagnosis, and on to treatment and aftercare. By optimizing clinical workflows for the most common diseases, Siemens also makes healthcare faster, better and more cost-effective. Siemens Healthcare employs some 48,000 employees worldwide and operates around the world. In fiscal year 2010 (to September 30), the Sector posted revenue of 12.4 billion euros and profit of around 750 million euros. For further information please visit: www.siemens.com/healthcare

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