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dkfz. GERMAN CANCER RESEARCH CENTER IN THE HELMHOLTZ ASSOCIATION

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Planning software for particle therapy with protons: Cancer Research Center and Siemens Medical Solutions increase cooperation

Radiation therapy research is one of the most important focal points at the German Cancer Research Center (DKFZ). The work of the medical physicists is coming to fruition: the Center and Siemens Medical Solutions recently signed a cooperative as well as licensing agreement for software to be used for the planning of particle therapy with protons.

While Siemens receives the exclusive right of use for software and calculation methods for accurately planning particle therapy sessions with protons, the company reciprocates by supporting research positions for a period of three years. Additionally, the Institute benefits from revenues through the sale of software for therapy planning. DKFZ provides the required knowledge, works closely with Siemens Medical Solutions on product development, and then takes over clinical testing and further development of the planning programs.

In particle therapy, protons or carbon ions are brought to a very high speed with an accelerator system and accurately targeted at the tumor. The particles cause irreparable damage to the tumor cells. Through highly accurate computations and control, tumors of complex shape can be irradiated with millimeter precision, sparing the surrounding healthy tissue.

Important components of the licensing agreement concluded between the DKFZ Office of Technology Transfer and Siemens include the planning program for tumors in the brain and the body (“KonRad2“) and for eye tumors (“OCTOPUS“), which were developed to a large extent in the Department of Medical Physics for Radiation Therapy under the direction of Professor Wolfgang Schlegel. The programs enable the required radiation techniques and optimum dose to be calculated quickly based on CT and MRI images.

“This cooperation with Siemens will be another great milestone in the development of particle therapy,” stated Schlegel. The new products will be used at the University Clinic in Heidelberg once the heavy ion therapy (HIT) system is completed. “Siemens will implement the technologies developed within the framework of the cooperative agreement in standard solutions for particle therapy, making them available to cancer patients worldwide,” said Walter Folberth, Senior Vice President of Particle Therapy at Siemens Medical Solutions.

The task of the Deutsches Krebsforschungszentrum in Heidelberg (German Cancer Research Center, DKFZ) is to systematically investigate the mechanisms of cancer development and to identify cancer risk factors. The results of this basic research are expected to lead to new approaches in the prevention, diagnosis and treatment of cancer. The Center is financed to 90 percent by the Federal Ministry of Education and Research and to 10 percent by the State of Baden-Wuerttemberg. It is a member of the Helmholtz Association of National Research Centers (Helmholtz-Gemeinschaft Deutscher Forschungszentren e.V.).

Siemens Medical Solutions is one of the largest suppliers to the healthcare industry in the world. The company is known for bringing together innovative medical technologies, healthcare information systems, management consulting, and support services, to help customers achieve tangible, sustainable, clinical and financial outcomes. From imaging systems for diagnosis, to therapy equipment for treatment, to patient monitors to hearing instruments and beyond, Siemens innovations contribute to the health and well-being of people across the globe, while improving operational efficiencies and optimizing workflow in hospitals, clinics, home health agencies, and doctors' offices. Employing approximately 31,000 people worldwide and operating in more than 120 countries, Siemens Medical Solutions reported sales of 7.07 billion EUR, orders of 8.12 billion EUR and group profit of 1,05 billion EUR for fiscal 2004 (preliminary figures). Further information can be found under: http://www.siemens.com/medical

This press release is available at www.dkfz.de/pressemitteilungen

Dr. Julia Rautenstrauch
Division of Press and Public Relations
Deutsches Krebsforschungszentrum
Im Neuenheimer Feld 280
D-69120 Heidelberg
T: +49 6221 42 2854
F: +49 6221 42 2968

Press Office Medical Solutions
Anja Süssner
Postfach 3260,
D-91050 Erlangen
Ph: +49 9131 84 3292
F: +49 9131 84 3047
E-Mail: anja.suessner@siemens.com