Leading European Center Begins Treatments Using Brachytherapy Devices and Software from Varian Medical Systems

PARIS, Nov. 8, 2010 /PRNewswire/ -- One of Europe's leading hospitals offering brachytherapy treatments for cancer patients has commenced treatments using three advanced computer-controlled afterloader devices and a full suite of planning software from Varian Medical Systems (NYSE: VAR). French cancer patients will benefit from advanced brachytherapy treatments following the decision by Institute Gustave-Roussy (IGR) in Paris to install Varian's GammaMed™ PDR (pulsed dose rate) afterloaders to replace five aging low dose rate brachytherapy devices.

Dr. Christine Haie-Meder, head of brachytherapy at IGR, said three gynecological cancer patients had been treated on the new equipment so far. "These new devices and software enable us to increase our optimized 3D-based brachytherapy procedures, especially in gynecological tumors, as well as enabling us to replace low dose rate with pulsed dose rate treatments," said Dr. Haie-Meder. "For patients, this means we can potentially increase the quality of the treatments."

Brachytherapy involves treating cancer by temporarily placing radioactive sources within or adjacent to the tumor. Pulsed dose rate brachytherapy involves short pulses of radiation, typically once an hour, twenty-four hours per day, to simulate the overall rate and effectiveness of low dose rate treatments. Typical tumor sites treated by PDR brachytherapy are gynecological, head and neck, anal canal and penile cancers, as well as pediatric tumors such as rhabdomyosarcoma.

One of the key factors in IGR's decision to acquire GammaMed afterloaders was the efficacy of Varian's brachytherapy software, including BrachyVision™ treatment planning software. "The software appears to be very easy-to-use and reliable and is ideal for MRI-based brachytherapy imaging," said Dr Haie-Meder. "We have a very modern approach to brachytherapy treatments with regular use of CT or MRI 3D-based dosimetry and optimization, and the Varian software will aid us in this approach."

"We are honored that clinicians at IGR, one of the world's leading brachytherapy centers, have confidence that Varian devices and software enable them to meet their high treatment standards," said Hosea Mitchell, VP of Varian BrachyTherapy.

IGR is one of Europe's leading exponents of brachytherapy, with a long history of treating patients using this technique. Over 450 patients are treated using brachytherapy at IGR each year, with a focus on gynecological, prostate, penile, head/neck, pediatric, breast, anal canal and bronchial cancers.

Brachytherapy is an extremely well established treatment technique which plays an essential role as a standard of care for advanced stage cervix cancer patients. This is a field in which Dr. Haie-Meder has particular expertise and has led many key developments in the technique as indicated by some of following publications:

Physics Contributions and Clinical Outcome With 3D-MRI–Based Pulsed-Dose-Rate Intracavitary Brachytherapy in Cervical Cancer Patients

*International Journal of Radiation Oncology*Biology*Physics, Volume 74, Issue 1, 1 May 2009, Pages 133-139

Cyrus Chargari, Nicolas Magne, Isabelle Dumas, Taha Messai, Lisa Vicenzi, Norman Gillion, Philippe Morice, Christine Haie-Meder
Inter-observer comparison of target delineation for MRI-assisted cervical cancer brachytherapy: Application of the GYN GEC-ESTRO recommendations
Radiotherapy and Oncology, Volume 91, Issue 2, May 2009, Pages 166-172

Preliminary results of a prospective multicentric French study of PDR 3D brachytherapy for cervix carcinoma
Brachytherapy, Volume 7, Issue 2, April-June 2008, Page 96
Christine Brunaud, Christine Haie-Meder, Didier Peiffert, STIC PDR Group

Intercomparison of treatment concepts for MR image assisted brachytherapy of cervical carcinoma based on GYN GEC-ESTRO recommendations
Radiotherapy and Oncology, Volume 78, Issue 2, February 2006, Pages 185-193

Recommendations from gynaecological (GYN) GEC ESTRO working group (II): Concepts and terms in 3D image-based treatment planning in cervix cancer brachytherapy—3D dose volume parameters and aspects of 3D image-based anatomy, radiation physics, radiobiology
Radiotherapy and Oncology, Volume 78, Issue 1, January 2006, Pages 67-77
Richard Potter, Christine Haie-Meder, Erik Van Limbergen, Isabelle Barillot, Marisol De Brabandere, Johannes Dimopoulos, Isabelle Dumas, Beth Erickson, Stefan Lang, An Nulens, Peter Petrow, Jason Rownd, Christian Kirisits

3D image based concepts in brachytherapy for cervix cancer
Christine Haie-Meder and On behalf of the GYNE GEC ESTRO working group

Recommendations from Gynaecological (GYN) GEC-ESTRO Working Group (I): concepts and terms in 3D image based 3D treatment planning in cervix cancer brachytherapy with emphasis on MRI assessment of GTV and CTV
Radiotherapy and Oncology, Volume 74, Issue 3, March 2005, Pages 235-245

7Dose-volume histogram analysis for tumor and critical organs in intracavitary brachytherapy of cervical cancer with the use of MRI
Radiotherapy and Oncology, Volume 60, Supplement 1, 2001, Page S3

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ABOUT VARIAN MEDICAL SYSTEMS

Varian Medical Systems, Inc., of Palo Alto, California, is the world's leading manufacturer of medical devices and software for treating cancer and other medical conditions with radiotherapy, radiosurgery, proton therapy, and brachytherapy. The company supplies informatics software for managing comprehensive cancer clinics, radiotherapy centers and medical oncology practices. Varian is a premier supplier of tubes and digital detectors for X-ray imaging in medical, scientific, and industrial applications and also supplies X-ray imaging products for cargo screening and industrial inspection. Varian Medical Systems employs approximately 5,100 people who are located at manufacturing sites in North America, China, and Europe and in its 79 sales and support offices around the world. For more information, visit http://www.varian.com/

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