

13 May 2010

**For immediate release**

**MEDIA RELEASE**

## **Faster, accurately targeted radiation therapy for cancer patients**

**National University Cancer Institute, Singapore, partners Swedish medical technology provider to offer state-of-the-art radiation machines and treatment techniques, conduct joint training and research.**

SINGAPORE - Cancer patients from the Radiation Therapy Centre (RTC) of the National University Cancer Institute, Singapore (NCIS) will soon receive faster and more precise radiation therapy treatment arising from RTC's revamp of its clinical capabilities and capacity. The Centre is upgrading its existing two Linear Accelerator (LINAC) machines<sup>1</sup> to three machines boasting more advanced features. With the upgrade, RTC will be able to increase its patient load to see more patients with potentially faster turnaround time.

The new LINAC machines are enabled with Intensity Modulated Radiation Therapy (IMRT)<sup>2</sup> and Image Guided Radiation Therapy (IGRT)<sup>3</sup> capabilities, which allow radiation therapists to visualise the tumour at the time of treatment. This offers a more precise treatment while minimising damage to surrounding healthy tissue.

Installation of these machines will enable the RTC to be the first in Singapore to adopt Elekta VMAT (Volumetric Modulated Arc Therapy), one of the few newest and most advanced arc-based treatment techniques. With this technique, single or multiple radiation beams sweep in uninterrupted arcs around the patient, dramatically speeding up treatment delivery and reducing treatment duration from the eight to 12 minutes required for "conventional" radiation therapy to as few as two minutes. This approach enables more precise and aggressive treatment of tumours with potentially lower radiation doses to cancer patients.

The switch to the new, state-of-the-art radiotherapy equipment is proceeding in stages, over a span of one year, with the first of the three LINAC machines being operational from August 2010.

The installation of the new machines are part of a collaboration between NCIS with Swedish medical technology provider, Elekta, to pursue clinical, training and research initiatives aimed at enhancing clinical capabilities and developing the next generation of radiation therapists.

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<sup>1</sup> A Linear Accelerator machine delivers electromagnetic radiation to kill cancer cells and shrink tumours.

<sup>2</sup> IMRT refers to the division of the radiation beam into multiple component beams to deliver a unique pattern of radiation. The highly conformal radiation dose maximises radiation to the tumour while minimising exposure to healthy organs and tissue.

<sup>3</sup> IGRT refers to the incorporation of contemporary imaging modalities into radiation delivery machines, allowing for frequent confirmation of the position of the tumour and patient.

NCIS and Elekta have inked an agreement that paves the way for partnership on academic teaching and research. They will come together to organise training programmes for radiation oncologists on operating LINACs and VMAT techniques. The programme builds upon NCIS's strength in leading international collaboration on education, including the publication of academic texts which see high rates of adoption in tertiary institutions worldwide, such as those in Canada, Europe and the United States, and establishes Singapore as an international training centre for novel technologies and advances in radiation oncology.

This initiative will be augmented by NCIS and Elekta's collaboration on the research front to exchange scientific, academic and technical information for joint research initiatives that improve radiation oncology treatments and technologies.

Said Professor John Wong, Director of the National University Cancer Institute, Singapore, "NCIS is constantly on the look-out for potential collaboration with outstanding local and international partners to offer high-value technological capabilities and training opportunities to hone the skills of radiation oncologists in the region. This partnership with Elekta, an established international medical technology provider, also opens up opportunities for joint research projects focusing on breakthrough medical technology and equipment. Through this partnership, we strive to deliver quality clinical care for cancer patients in the region as well as internationally."

Said Mr Ian Alexandra, Executive Vice President of Elekta's Asia Pacific Region, "This strategic collaboration aims to raise the standards of patient care by improving effectiveness, reducing complications and expanding the implications of radiation therapy for patients in Asia and beyond. One of the national cancer centres in Singapore, NCIS is an established name in the provision of outstanding oncology clinical care. As a leader in educational and training initiatives worldwide, the institute is also a key training site for radiation oncology in Asia. This collaboration is the only one in Southeast Asia and establishes the RTC as a specialised training facility, clinical product development centre and global reference site for Elekta."

*For more information on RTC's education and research initiatives, please refer to Annex A.*

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### **About the National University Health System (NUHS)**

Established in January 2008 and jointly owned by the Ministry of Health Holdings and National University of Singapore (NUS), the National University Health System groups the National University Hospital (NUH), NUS Yong Loo Lin School of Medicine and NUS Faculty of Dentistry under a common governance structure to create synergies to advance health by integrating excellent clinical care, research and education.

The enhanced capabilities and capacity will enable the NUHS to deliver better patient care, train future generations of doctors more effectively and bring innovative treatments to patients through groundbreaking research.

For more information about NUHS, please visit [www.nuhs.edu.sg](http://www.nuhs.edu.sg)

### **About the National University Cancer Institute, Singapore**

The National University Cancer Institute, Singapore (NCIS) offers a broad spectrum of cancer care and management covering both paediatric and adult cancers, with expertise in prevention, screening, diagnosis, treatment, rehabilitation and palliative care. The Institute's strength lies in the multidisciplinary approach taken to develop a comprehensive and personalised plan for each cancer patient and his or her family.

NCIS draws on the expertise of our specialists in the fields of haematology-oncology, radiation oncology, gynaecologic oncology, paediatric oncology, surgical oncology, oncology nursing, oncology pharmacy, palliative care, pathology, radiology, medical specialities including gastroenterology and hepatology, infectious diseases, pulmonary and critical care, psychiatry; epidemiology and public health as well as other allied health sciences.

With several award-winning clinician-scientists and clinician-investigators, NCIS has an international reputation in translational research and clinical trials, providing patients with access to promising breakthroughs in cancer diagnostics, technology and therapies. NCIS is also closely affiliated with the Cancer Science Institute of Singapore, National University of Singapore.

The Institute's outreach efforts include prevention and screening programmes to reduce cancer mortality and to diagnose the disease at its most treatable stage.

For more information about NCIS, please visit [www.ncis.com.sg](http://www.ncis.com.sg)

### **About Elekta**

Elekta is a human care company pioneering significant innovations and clinical solutions for treating cancer and brain disorders. The company develops sophisticated, state-of-the-art tools and treatment planning systems for radiation therapy and radiosurgery, as well as workflow enhancing software systems across the spectrum of cancer care.

Stretching the boundaries of science and technology, providing intelligent and resource-efficient solutions that offer confidence to both healthcare providers and patients, Elekta aims to improve, prolong and even save patient lives, making the future possible today.

Today, Elekta solutions in oncology and neurosurgery are used in over 5,000 hospitals globally, and every day more than 100,000 patients receive diagnosis, treatment or follow-up with the help of a solution from the Elekta Group.

Elekta employs around 2,500 employees globally. The corporate headquarter is located in Stockholm, Sweden, and the company is listed on the Nordic Exchange under the ticker EKTA. For more information about Elekta, please visit [www.elekta.com](http://www.elekta.com).

Annex A

**About the Radiation Therapy Centre's (RTC) Education Initiatives:**

**Continuing Medical Education**

RTC undertakes to educate, train and mentor the next generation of healthcare professionals in this field of medicine.

The Centre is the only accredited radiation oncology training centre for the Fellowship of the Royal Australian and New Zealand College of Radiologists (RANZCR) outside of these two countries.

RTC provides post-graduate medical training for healthcare professionals, as well as clinical and research fellows from China, India, Malaysia, North Korea, Philippines, United States and Vietnam.

We lead collaborations with international specialists on education, including in the publication of academic texts, which see high rates of adoption in tertiary institutes worldwide, such as those in Canada, Europe and United States.

- Radiation Oncology: An Evidence-Based Approach (published in 2008)
- Nasopharyngeal Carcinoma: Multidisciplinary Management (published in 2009)
- Decision-Making in Radiation Oncology (to be published in early 2011)

**About the Radiation Therapy Centre's Research Initiatives:**

As part of an academic medical centre, we are actively involved in developing, evaluating and promoting new, improved and more advanced treatments for our patients. One such example is Accelerated Partial Breast Irradiation (APBI), which allows for shorter overall treatment duration (5 days) and less side effects compared to standard radiation treatment.

We are associated with the Trans-Tasman Radiation Oncology Group (TROG), an international collaborative clinical research groups for radiation therapy trials. Some of our joint research projects include:

- Evaluating the efficacy of chemotherapy with novel drug, Temozolomide versus radiotherapy in patients with low grade Gliomas, a type of brain tumour.
- Assessing which duration of radiation regime will be of most benefit to women who have ductal carcinoma in situ (DCIS), a precancerous condition of the breast.

We participate with the European Organisation for Treatment and Research of Cancer (EORTC), an international non-profit organisation that develops, coordinates and stimulates cancer laboratory and clinical research in Europe. An example of an on-going research project includes determining the effects of the drug Cilengitide in the treatment of glioblastoma, a type of brain cancer.