

## **PRESS RELEASE**

### **MIRO – a new cancer research conference sets a benchmark in cancer treatment**

**Successful premiere of EANM – patients benefit from interdisciplinary information exchange between doctors in nuclear medicine, radiologists and oncologists**

**(Vienna, 10 May 2010) The precise detection and targeted radiation of tumours is of crucial importance in successfully combating many forms of cancer. 400 doctors in nuclear medicine, oncologists and radiologists from Europe and the USA presented the latest research, diagnostic and treatment methods at the world premiere of the Conference for Molecular Imaging in Radiation Oncology (MIRO) which was held in Brussels from 18 to 20 March.**

“MIRO fills a real gap in treatment and will now be held bi-annually because the international interdisciplinary approach adopted here benefits cancer patients enormously,” says Prof. Wolfram Knapp, President of the European Association of Nuclear Medicine (EANM), which is the joint organiser of the conference together with the European Society for Therapeutic Radiology and Oncology (ESTRO). Subjects relating to positron emission tomography (PET), a technique in which there have been some extremely promising innovations compared with other molecular imaging techniques, featured prominently at Brussels.

#### **“Made-to measure” radiation**

One such innovation is the concept of “dose painting” in which particularly resistant parts of a tumour receive higher doses of radiation than the other parts of the tumour, thereby increasing the chances of a sustained recovery, while at the same time minimising the exposure dose to the rest of the tumour tissue and the surrounding healthy tissue. A prerequisite for dose painting is an exact analysis of the biological properties of the tumour to enable the different areas to be delineated. Current studies from Germany and Holland on non-small cell bronchial carcinomas show that the corresponding results provided by PET were of the required degree of accuracy.

#### **Hope for patients with brain tumours**

Another study devoted to combating brain tumours aroused a great deal of interest in Brussels. This study also called for a more effective targeting of radiation than had previously been achieved. In order to image the tumours as accurately as possible, a PET examination will be carried out initially. Amino acids, which are also found as building blocks of proteins in the human body, are used to transport the radioactive substances to their target locations in the patient’s body. Glucose, which is normally used in PET examinations, is less well suited to the examination of brain tumours because glucose metabolism in healthy brain tissue is very high in any event, making affected regions occasionally difficult to differentiate. Normally, brain tumours are not in fact detected by PET but by magnetic resonance

tomography. However, initial smaller scale studies have now shown that combining magnetic resonance tomography with a PET using amino acids produces more exact results than using magnetic resonance tomography alone. Radiation therapies based on PET findings may possibly extend a patient's life by several months. "These are encouraging signs. What we now need to do is to confirm the advantages of this method in larger scale studies and obtain more detailed information," says EANM expert and adjunct professor, Dr. Ursula Nestle from the University Clinic, Freiburg. Dr. Nestle gave details of a large-scale study due to begin at the start of 2011 in which ten oncological centres in Germany are to participate, with 31 clinics throughout Europe having expressed an interest.

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