MAASTRO, Maastricht Radiation Oncology, is a co-operation between MAASTRO CLINIC, the University of Maastricht (UM) and the University Hospital Maastricht (azM) (see www.maastro.nl). MAASTRO consists of several divisions, including MAASTRO CLINIC, which offers state-of-the-art radiotherapy to more than 3500 cancer patients each year from the Mid and South Limburg area in the Netherlands. In addition, research and training at MAASTRO is carried out in MAASTRO Physics, MAASTRO Trials, MAASTRO School, and MAASTRO Lab.

MAASTRO CLINIC is a radiotherapy treatment and research facility and MAASTRO Lab is a radiobiology research facility, both are embedded within the GROW research institute of the Faculty of Health, Medicine and Life Sciences at Maastricht University. Research carried out in the past has focused on dose guided radiotherapy (DGRT), PET/CT imaging, EGFR, tumor hypoxia and animal molecular imaging. We have developed techniques to determine the real dose delivered to the patient during radiotherapy, based on portal imaging and cone beam imaging technology.
We have made several important discoveries in these fields, including demonstration that EGFR is up regulated by radiation and that hypoxia inhibits the initiation step of mRNA translation. In addition, we have initiated translational and clinical studies based on these results including both phase I novel treatment and molecular imaging trials as well as a Biobank project with more then 1500 patients included.
We are now expanding our research activities by acquiring a small animal research platform for integrated imaging/irradiation. We will first develop this platform further and then we will study radiation interaction with healthy and cancerous tissue in small animals in an environment that will closely mimic the setup for radiotherapy patients.

The CLINIC and Lab have seven permanent physicists, 4 radiobiologists, several technicians, informaticians, and 15 PhD students/postdocs and are fully equipped with linear accelerators, a PET-CT scanner, two CT scanners, animal optical imager, animal PET, animal MRI etc. MAASTRO collaborates with the University of Toronto on the small animal radiation research.

MAASTRO CLINIC/LAB has a vacancy for a:

PhD student in the Development of a small animal radiation research platform (M/F)

In this position you will carry out a research project, focused on the further development of a small animal imaging/irradiation platform. The project centers around the development of methods and software for modulation of the spatial and energetic characteristics of the radiation beam. You will model the radiation beam with Monte Carlo methods, and use the same technique to develop a treatment planning technique. You will perform radiation dosimetry measurements. You will develop a technique for contrast-enhanced radiotherapy in small animals. On the imaging side of the platform you will work on image fusion with other imaging modalities, artifact correction, and use of the images for treatment planning. At a later stage you will be involved in radiobiological research with a device that can deliver precision radiotherapy to small animals in a controlled environment (e.g. to hypoxic, acidic or EGFR-positive regions).

We are looking for a candidate with a masters degree (or equivalent) in Physics or Biomedical Technology, who can work highly independently. Experience with image processing and radiation dosimetry is highly valued. The enthusiastic candidate that we are looking for must be fluent in English. A GPA of 3.5/4 or equivalent is a prerequisite. A license to work with animals is desirable or should be obtained. You are requested to provide two references.

Conditions of employment and salary are based on the Dutch Collective Labour Agreement for Hospitals (CAO-Ziekenhuizen). You will receive a fulltime contract (36 hours/week) for an initial period of one year, with the intention for extension up to 4 years. Your salary will be according to the scale of scientific researcher 4 of MAASTRO CLINIC, and is

depending on your relevant experience. Furthermore the Collective Labour Agreement offers an extended package of secondary conditions, among others an 8%-holiday bonus, a yearly bonus and excellent pension arrangements and health insurance arrangements.

Further information may be obtained from Frank Verhaegen, Head of Physics Research, by e-mail: frank.verhaegen@maastro.nl, or by calling +31-(0)88-4455792. Please also visit www.maastro.nl and www.grow-um.nl.

Your application letter, Curriculum Vitae and listing of publications can be sent before the 23th of July 2009 to the attention of Ms. E. Dekkers, human resource officer, MAASTRO CLINIC, P.O. Box 3035, 6202 NA Maastricht, or by e-mail to: personeelszaken@maastro.nl