

MAASTRO, Maastricht Radiation Oncology, is a co-operation between MAASTRO clinic, the University of Maastricht (UM) and the University Hospital Maastricht (azM) (see www.maastron.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 Lab is a basic and translational research laboratory 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 been focused on the tumour microenvironment, in particular hypoxia, autophagy and NOTCH signalling, all of relevance to radiation oncology. MAASTRO Lab has made several important discoveries in these fields, including demonstration that targeting hypoxia responsive mechanisms sensitizes tumors to irradiation. In addition, we have initiated translational and clinical studies based on these results.

The lab has 5 permanent scientists, 5 technicians, more than 15 PhD students and Post-Docs and is fully equipped for cell culture, molecular and cellular biology (e.g. flow cytometry, hypoxia, gene expression, proteomics and microscopy) and working with mouse models (optical imager, an *advanced small animal irradiator* with cone beam CT and BLI, MRI 7 Tesla and micro-PET). MAASTRO lab has set up the necessary infrastructure for controlled exposures to hypoxia and hypoxia/reoxygenation, including development of novel equipment that allows rapid and controlled changes in oxygenation. Access to expertise, equipment and resources within the much larger GROW research institute and other facilities in the University are also readily available including advanced microscopy, and the animal facility.

MAASTRO lab has a 2-year vacancy for a:

Research technician focused on identifying new treatments that affect tumor cell metabolism in brain tumors.

In this position you will perform research focused on new medications that interfere with mitochondrial metabolism to treat aggressive brain tumors, glioblastoma. The research will be performed together with Dr. Marc Vooijs' team. Previously we showed that targeted drugs against the NOTCH pathway enhance the effect of radiation and chemotherapy and interfere with the survival of hypoxic tumor cells. These hypoxic regions in tumor cells are highly treatment-resistant. We hypothesize that altering tumor cell metabolism will make tumors less hypoxic and more treatment sensitive and improve outcome. To do so we will investigate novel applications of existing drugs that interfere with oxidative phosphorylation.

Within this position you will be involved, together with members of our teams, in establishing *in vivo* tumor models using primary and established tumor cell lines and using advanced non-invasive imaging techniques to study the effect of pharmacological interventions combined with tumor specific irradiation. All techniques are up and running in our department.

Furthermore, you will be conducting molecular- and cell biological studies performed in the lab, where a large number of techniques (on DNA, mRNA, protein, cellular and tissue level) will be used to 1) study tumor cell metabolism 2) support *in vivo* findings and 3) test novel hypotheses.

We are searching for a highly motivated and independent coworker, ready to work hard and with interests in translational research and molecular or cell biology. The candidate must have completed a Bachelor of Science or Masters degree and willingness to work as a laboratory technician. Affinity for *in vivo* work including authorization to work with animals (Art. 12 or Art. 9) is required. We offer an enthusiastic working environment in an ambitious international research team, communication in English is therefore a prerequisite. Knowledge of basic molecular biology skills mammalian cell culture *vitro* cell culture, RNA and protein analysis is preferred. Authorization to work with radioactivity ("Stralingshygiëne Niv 5b", The Netherlands) is a plus.

Further information will be gladly given by marc.vooijs@maastrichtuniversity.nl or telephone number: +31-(0)43-3882912. Please also visit www.maastronlab.com.

Your application letter and Curriculum Vitae can be sent before 7-7-2016 to marc.vooijs@maastrichtuniversity.nl. Interviews will be in the last week of July. The candidate is expected to start before 1 October.