

Vacancy **Master student internship**  
(36 hours)

**MRI-based risk thresholds for inclusion of patients in active surveillance**

**Project Description**

For patients with low-risk prostate cancer, active surveillance is a modality to manage prostate cancer with the aim of optimizing quality of life by avoiding the side effects of radical treatment.

Multi-parametric MRI (mpMRI) and targeted biopsies can reveal higher-grade prostate cancer in patients who satisfy strict criteria for inclusion in AS. As the clinical outcome of AS is excellent, we hypothesize that these MRI characteristics can be considered consistent with low-risk disease.

We recently developed a mpMRI-based model, Gleason-risk heat map, for pathology classification of patients into risk categories. Using this model in a retrospective cohort of 1290 patients who were treated with radical prostatectomy and received a preoperative prostate MRI, we aim to derive MRI-based risk thresholds that justify inclusion of patients in AS. We then test the repeatability of the Gleason-risk heat maps in a test re-test dataset of 34 patients.

**Research Question**

- What are the characteristics of the Gleason risk heat maps in patients that satisfy inclusion criteria for active surveillance?
- What is the negative predictive value of the Gleason-risk heat map for excluding high-grade prostate cancer?

**Your profile**

A master student in medical science looking for an internship project with basic programming skills

**Your career opportunities and terms of employment**

Start date: Jan 2019

Expected final date: after 6 months

Work load (weeks): 24 weeks

**Interested?**

For further information about the position please contact Ghazaleh Ghobadi, tel. +31 20 5121744 or e-mail: [g.ghobadi@nki.nl](mailto:g.ghobadi@nki.nl)

**Acquisition for this vacancy is not appreciated.**