

## PhD position

within the EU Marie Curie Initial Training Network  
QuanTI: Quantitative T-cell immunology

**We are looking for a PhD student interested in interdisciplinary immunological research on the quantification of lymphocyte turnover.** We will investigate how the the production and loss rates of different types of lymphocytes change during healthy ageing, and following severe lymphocyte depletion in both mice and men. We will build on recent experimental advances, specifically the use of stable isotopes to perform in vivo labelling of the DNA of dividing cells. It is generally believed that during immune reconstitution, lymphocytes divide more rapidly and survive longer due to decreased competition for stimulatory or survival signals. We will study whether lymphocyte turnover rates are indeed different – and if so how – in HIV-patients on highly active anti-retroviral therapy, and in patients who have undergone haematopoietic stem cell transplantation.

This project is part of an EC FP7 Marie-Curie Initial Training Network, which brings together 12 international experimental and theoretical partners from private and academic institutions to work on the topic of T-cell immunology. **This PhD project will involve the experimental work of the project.** It will be carried out in close collaboration with the Theoretical Immunology group at Imperial College London, which forms the mathematical counterpart of this project, with which regular interaction will be maintained.

### Department information

You will work in the research group run by José Borghans and Kiki Tesselaar, which is part of the Laboratory of Translational Immunology at the University Medical Center Utrecht, the Netherlands, and currently consists of 3 PhD students, 1 postdoc and 2 technicians. The group performs research at the interface between experimental and computational biology ([http://www.umcutrecht.nl/subsite/Immunology/Research\\_groups/Jose-Borghans.htm](http://www.umcutrecht.nl/subsite/Immunology/Research_groups/Jose-Borghans.htm)).

### Eligibility

To be eligible for this position you must have an MSc degree in an appropriate discipline (such as Biology, Medical Biology or Medicine) or a related science, which you obtained no more than 4 years ago. You should not have been resident or have carried out your main activity (work, studies, etc) in the Netherlands for more than 12 months in the past 3 years. These eligibility requirements are stipulated by the funder and are non-negotiable. Please do not apply if you do not meet them.

Experience in experimental immunology and with animal experiments is desirable.

### The position

- The post is full-time and fixed term for three years from September 2014 (start date negotiable).
- This is a *salaried* position. Additional allowances to cover living costs and travel, including a contribution to some family related expenses and the cost of annual travel back to home country will be available.

### How to apply

Please send your CV, along with a cover letter outlining your specific qualifications and motivation for this position, including contact information for at least one reference to:

Dr. José Borghans ([j.borghans@umcutrecht.nl](mailto:j.borghans@umcutrecht.nl)) no later than August 15, 2014