UMC Utrecht

Position: PhD candidate *Therapeutic mRNA delivery to the myocardium for cardiac regeneration*

Job title	PhD student
Department	Laboratory of Experimental Cardiology, division Heart and Lungs
Location	UMC Utrecht, Heidelberglaan 100
Contract type	Fixed-term for up to 4 years
Additional information	Funded by Dutch Heart Foundation, starting date 01-01-2020

Profile:

- (Nearly) completed a master of science program (MSc) in a relevant area of research such as pharmacology, regenerative medicine, drug innovation, or (bio)medical sciences**.**
- Experience with tissue culture and general molecular biology techniques is desired, experience with preclinical models of disease (art. 9 certification) is a plus.
- Must be able to work both independently and as part of a team, and to communicate effectively with others, particularly with regard to the presentation of scientific data.

Project:

Due to aging and improved survival post myocardial infarction, the incidence and prevalence of heart failure are increasing enormously. For the majority of the patient population, there is no cure, and treatment options are limited to pharmacology and a very limited number of heart transplantations. Thus, there is a major need for more innovative, regenerative therapies which have the potential to change the course of the disease. The aim of this project is to improve therapeutic mRNA delivery to the myocardium, in order to regenerate the heart after injury by stimulating the limited proliferative response of cardiomyocytes. The candidate will develop novel mRNA delivery technology based on lipid nanoparticles as well as endogenous mRNA transporters, i.e. extracellular vesicles, to achieve this.

Organization:

Two of the focus areas of research within the UMC Utrecht are Regenerative Medicine and Circulatory Health. Within these focus areas, the Laboratory of Experimental Cardiology plays a crucial role in the development of novel therapies for cardiovascular disease. The UMCU is located in the scientific campus of the Utrecht University with access to a large number of facilities. Utrecht is a beautiful city located in the center of the Netherlands, close to Amsterdam and its international airport.

Application deadline:

1 October 2019. Interviews will be held on Wednesday October 23rd.

Application process:

Please send your CV and supporting statement to Dr Pieter Vader (pvader@umcutrecht.nl). Please provide details of two referees and indicate whether we can contact them at this stage.

Further information:

For questions about the position, please send an email to pvader@umcutrecht.nl.