



Position: PhD candidate *Extracellular vesicle-mediated intercellular RNA transfer*

Job title	PhD student
Department	CDL Research
Location	UMC Utrecht, Heidelberglaan 100
Contract type	Fixed-term for up to 4 years
Additional information	Funded by NWO, starting date before April 2022
Reporting to	Dr Pieter Vader

Profile:

- (Nearly) completed a master of science program (MSc) in a relevant area of research such as pharmacology, cell biology, drug innovation, or (bio)medical sciences.
- Experience with tissue culture and general molecular biology techniques is desired, experience with extracellular vesicles or RNA 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:

RNA-based therapeutics, including siRNA, miRNA, mRNA and CRISPR/Cas9 components, have unprecedented therapeutic potential and hold the promise of treating any disease with a genetic component. However, inefficient delivery into diseased cells hinders their clinical progress. Recently, an endogenous RNA transport system has emerged, based on the release and uptake of extracellular vesicles (EVs). EVs are naturally equipped to transfer RNA molecules to other cells in a functional and selective manner. These findings suggest that EVs utilize native, yet unknown, mechanisms for cellular internalization and trafficking in order to effectively deliver their RNA content. As part of an NWO Vidi project, the aims are to identify critical EV components that mediate functional delivery of RNA and to understand how these components affect the different steps of the delivery process.

Organization:

Research efforts in our lab are focused on development of EV-inspired drug delivery systems. Our team is part of the CDL Research of the UMC Utrecht. 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:

October 1st 2021.

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.