

## Personal details

Title(s), initial(s), first name, surname: Prof. dr. Jack van Horssen  
Male/female: Male  
Date and place of birth: July 7<sup>th</sup>, 1976, Hedel  
Nationality: Dutch

## Master's

Radboud University Nijmegen, Biomedical Sciences ('99)

## Doctorate

Radboud University Nijmegen, Heparan sulphate proteoglycans and vascular pathology in Alzheimer's disease ('05)

## Brief summary of research

Throughout my scientific career I have been interested in understanding the pathogenetic basis of neurodegenerative disorders. I received my Ph.D. in 2005 from the Radboud University Nijmegen, where he was involved in Alzheimer's disease research at the department of Pathology. Currently, I am appointed as an associate professor at the Department of Molecular Cell Biology and Immunology of the VU University Medical Center Amsterdam, the Netherlands and a visiting Professor at the Biomedical Research Institute of the Hasselt University, Belgium. Throughout my scientific career I have been interested in understanding the pathogenetic basis of neurodegenerative disorders. My research line is focused on the identification of pathogenic processes and molecular pathways underlying multiple sclerosis (MS) disease progression. We particularly focus on understanding the pathological key events that are involved in inflammation-driven neurodegeneration. Our group has shown that enhanced reactive oxygen species (ROS) production and impaired mitochondrial metabolism play a central role in MS pathology. We are currently investigating mechanisms involved in mitochondrial dysfunction and glial cell alterations and how these pathological features contribute to neurodegeneration. The approach we use is to assemble information obtained from neuropathological examination of MS brain tissue and translate these findings into experimental in vitro and in vivo models and vice versa. Together with several collaborators our group has published over 100 papers in peer-reviewed journals. The work is funded through collaborative grants from Amsterdam Neuroscience, Progressive MS Alliance, Dutch MS Research Foundation and the National MS Society. I sincerely enjoy teaching and I am the program director of the bachelor Medicine at the VU Medical Center.

## Key references

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