



Universiteit  
Leiden  
The Netherlands

## **Novel regulators of endosome dynamics, MHCII antigen presentation and chemosensitivity**

Wijdeven, R.H.M.

### **Citation**

Wijdeven, R. H. M. (2017, November 29). *Novel regulators of endosome dynamics, MHCII antigen presentation and chemosensitivity*. Retrieved from <https://hdl.handle.net/1887/59471>

Version: Not Applicable (or Unknown)

License: [Licence agreement concerning inclusion of doctoral thesis in the Institutional Repository of the University of Leiden](#)

Downloaded from: <https://hdl.handle.net/1887/59471>

**Note:** To cite this publication please use the final published version (if applicable).

Cover Page



Universiteit Leiden



The following handle holds various files of this Leiden University dissertation:  
<http://hdl.handle.net/1887/59471>

**Author:** Wijdeven, R.H.M.

**Title:** Novel regulators of endosome dynamics, MHCII antigen presentation and chemosensitivity

**Issue Date:** 2017-11-29

Novel regulators of endosome dynamics,  
MHCII antigen presentation and chemosensitivity

Ruud Hendricus Martinus Wijdeven

ISBN: 978-94-6233-770-1

**Copyright:** Ruud HM Wijdeven 2017

Cover: Amsterdam as template for the cell, with different modes of transportation connected in a dynamic equilibrium.

The research described in this thesis was performed at the department of Cell Biology II, Netherlands Cancer Institute, Amsterdam, the Netherlands, as well as at the department of Chemical Immunology, LUMC, Leiden, the Netherlands.

Printed by: Gildeprint, Enschede

Novel regulators of endosome dynamics,  
MHCII antigen presentation and chemosensitivity

Proefschrift

Ter verkrijging van  
de graad van Doctor aan de Universiteit Leiden,  
op gezag van Rector Magnificus prof.mr. C.J.J.M. Stolker  
volgens besluit van het College voor Promoties  
te verdedigen op woensdag 29 november  
klokke 13.45 uur

Door

Ruud Hendricus Martinus Wijdeven

Geboren te Mill en St. Hubert

op 14 Februari 1985

**Promotor:**

Prof. Dr. J.J.C. Neefjes

**Co-Promotor:**

Prof. Dr. H.S. Overkleeft

**Promotiecommissie:**

Prof. Dr. J. Borst  
*Universiteit van Amsterdam*

Prof. Dr. P. ten Dijke

Prof. Dr. H. Ovaa

Prof. Dr. H.J. Tanke

Dr. E.A.J. Reits  
*Universiteit van Amsterdam*

Dr. W.T. Zwart  
*Nederlands Kanker Instituut*

## ***Table of Contents***

<b>Scope of the thesis</b>	<b>6</b>
<b>Chapter 1:</b> ER contact sites direct late endosome transport. <i>Bioessays (2015)</i>	<b>7</b>
<b>Chapter 2:</b> Cholesterol and ORP1L-mediated ER contact sites control autophagosome transport and fusion with the endocytic pathway. <i>Nature Communications (2016)</i>	<b>17</b>
<b>Chapter 3:</b> An ER-associated pathway defines endosomal architecture for controlled cargo transport. <i>Cell (2016)</i>	<b>45</b>
<b>Chapter 4:</b> Identification of DUBs controlling MHCII and vesicular dynamics.	<b>75</b>
<b>Chapter 5:</b> USP54 is a novel regulator of cytoskeletal dynamics.	<b>91</b>
<b>Chapter 6:</b> Exploring genome-wide datasets of MHC class II antigen presentation. <i>Molecular Immunology (2013)</i>	<b>111</b>
<b>Chapter 7:</b> Chemical and genetic control of IFN $\gamma$ -mediated MHCII expression.	<b>117</b>
<b>Chapter 8:</b> Old drugs, novel ways out: drug resistance towards cytotoxic chemotherapeutics. <i>Drug Resistance Updates (2016)</i>	<b>137</b>
<b>Chapter 9:</b> Genome-wide identification and characterization of novel factors conferring resistance to topoisomerase II poisons in cancer. <i>Cancer Research (2015)</i>	<b>169</b>
<b>Chapter 10:</b> Summary and discussion.	<b>191</b>
<b>Nederlandse Samenvatting</b>	
<b>Curriculum Vitae</b>	
<b>List of Publications</b>	
<b>Acknowledgements</b>	