



Universiteit  
Leiden  
The Netherlands

## **Minor histocompatibility antigen specific cytotoxic and regulatory immune responses in health and disease**

Dierselhuis, M.P.

### **Citation**

Dierselhuis, M. P. (2015, January 20). *Minor histocompatibility antigen specific cytotoxic and regulatory immune responses in health and disease*. Retrieved from <https://hdl.handle.net/1887/31592>

Version: Corrected Publisher's Version

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

Downloaded from: <https://hdl.handle.net/1887/31592>

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

Cover Page



Universiteit Leiden



The handle <http://hdl.handle.net/1887/31592> holds various files of this Leiden University dissertation.

**Author:** Dierselhuis, Miranda Pauline

**Title:** Minor histocompatibility antigen specific cytotoxic and regulatory immune responses in health and disease

**Issue Date:** 2015-01-20

**Minor Histocompatibility Antigen Specific  
Cytotoxic and Regulatory Immune Responses  
in Health and Disease**

---

The work presented in this thesis was financially supported by the Netherlands Organization for Scientific Research (NWO), the Macropa Foundation and the Jan Dekker and dr. Ludgardine Bouwmanfoundation.

The printing of this thesis was kindly supported by BD, Greiner Bio-One, Yijing Business Academy, Willem-Alexander Childrens' Hospital and Willem-Alexander Childrens' Hospital, division of Stem cell transplantation (Stem Cell Inovation Project).

Cover design: Nikos Doulos

Printing: Ipsonkamp Drukkers

ISBN:

©2015 M.P. Dierselhuis. All rights reserved. No part of this publication may be reproduced in any form by any means without prior permission of the author.

---

# **Minor Histocompatibility Antigen Specific Cytotoxic and Regulatory Immune Responses in Health and Disease**

Proefschrift

ter verkrijging van  
de graad van Doctor aan de Universiteit Leiden,  
op gezag van de Rector Magnificus prof. mr. C.J.J.M. Stolker,  
volgens besluit van het College voor Promoties  
te verdedigen op dinsdag 20 januari 2015  
klokke 11.15 uur

door

Miranda Pauline Dierselhuis  
geboren te Hoorn in 1979

## **PROMOTIECOMMISSIE:**

Promotor: Prof. dr. E.A.J.M. Goulmy

Leden: Prof. dr. A. Brand

Prof. dr. F.H.J. Claas

Prof. dr. S.A. Scherjon, Universitair Medisch Centrum Groningen

*Voor jou*



## CONTENTS

I	Introduction	9
II	Transmaternal cell flow leads to antigen experienced cord blood	31
III	Gender influences the birth order effect in HLA-identical Stem Cell Transplantation	47
IV	HY immune tolerance is common in women without male offspring	53
V	Minor H antigen matches and mismatches are equally distributed among recipients with or without complications after HLA identical sibling renal transplantation	73
VI	Functionally different HA-1 specific T cells use the same TRBV7-9; a snake in the grass for T cell receptor transfer studies	81
VII	General discussion	95
VIII	Summary	109
IX	Nederlandse samenvatting	117
X	Addendum	125
	Acknowledgements / Dankwoord	127
	Curriculum Vitae	131
	List of Publications	133

