



Universiteit
Leiden
The Netherlands

The trichodysplasia spinulosa-associated polyomavirus : discovery - prevalence - infection - expression

Meijden, P.Z. van der

Citation

Meijden, P. Z. van der. (2016, June 21). *The trichodysplasia spinulosa-associated polyomavirus : discovery - prevalence - infection - expression*. Retrieved from <https://hdl.handle.net/1887/41204>

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/1887/41204>

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

Cover Page



Universiteit Leiden



The handle <http://hdl.handle.net/1887/41204> holds various files of this Leiden University dissertation

Author: Meijden, Els van der

Title: The trichodysplasia spinulosa-associated polyomavirus : discovery - prevalence - infection - expression

Issue Date: 2016-06-21

THE TRICHODYSPLASIA SPINULOSA- ASSOCIATED POLYOMAVIRUS

Discovery · Prevalence · Infection · Expression

Colophon

THE TRICHODYSPLASIA SPINULOSA-ASSOCIATED POLYOMAVIRUS

Discovery · Prevalence · Infection · Expression

Els van der Meijden

PhD thesis, Leiden University Medical Center, 2016

Cover: TSPyV particles in nucleus

Cover design: Miep van der Meijden

Layout and printing: Jennifer Keek and Gildeprint

ISBN: 978-94-6233-299-7

The copyrights of the published articles has been transferred to the respective journals or publishers.
©2016, Els van der Meijden, Amsterdam, The Netherlands.

All rights reserved. No part of this thesis may be reproduced, stored in a retrieval system,
or transmitted in any form or by any means without prior permission of the author.

THE TRICHODYSPLASIA SPINULOSA- ASSOCIATED POLYOMAVIRUS

Discovery · Prevalence · Infection · Expression

PROEFSCHRIFT

ter verkrijging van
de graad van Doctor aan de Universiteit Leiden,
op gezag van Rector Magnificus prof.mr. C.J.J.M. Stolkers,
volgens besluit van het College voor Promoties
te verdedigen op dinsdag 21 juni 2016
klokke 16:15 uur

door

Petronel Zwantine van der Meijden

geboren te Almkerk
in 1967

Promoter: Prof. dr. A.C.M. Kroes
Co-promoter: Dr. M.C.W. Feltkamp

Leden Promotiecommissie: Prof. dr. A.E. Gorbalenya
Dr. C.B. Buck
Dr. A.C.T.M. Vossen
Prof. dr. H.L. Zaaijer

Voor PP & MM

TABLE OF CONTENTS

| | | |
|-----------|------------------------------------------------|---|
| Chapter 1 | General introduction and outline of the thesis | 8 |
|-----------|------------------------------------------------|---|

Discovery

| | | |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------|----|
| Chapter 2 | Discovery of a new human polyomavirus associated with trichodysplasia spinulosa in an immunocompromised patient. <i>PLoS Pathogens 2010</i> | 24 |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------|----|

Prevalence and Infection

| | | |
|-----------|-----------------------------------------------------------------------------------------------------------------------------|----|
| Chapter 3 | Seroprevalence of trichodysplasia spinulosa-associated polyomavirus. <i>Emerging Infectious Diseases 2011</i> | 44 |
| Chapter 4 | Different serologic behavior of MCPyV, TSPyV, HPyV6, HPyV7 and HPyV9 polyomaviruses found on the skin. <i>PLoS One 2013</i> | 60 |
| Chapter 5 | Primary disseminated polyomavirus infection as the cause of trichodysplasia spinulosa. <i>Submitted</i> | 80 |

Expression

| | | |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| Chapter 6 | Characterization of T-antigens, including middle T and alternative T, expressed by the human polyomavirus associated with trichodysplasia spinulosa. <i>Journal of Virology 2015</i> | 100 |
| Chapter 7 | Polyomavirus-associated trichodysplasia spinulosa involves hyperproliferation, pRB phosphorylation and upregulation of p16 and p21. <i>PLoS One 2014</i> | 126 |
| Chapter 8 | General Discussion | 140 |
| Chapter 9 | References | 150 |
| Chapter 10 | Appendix Nederlandse samenvatting (Summary in Dutch) List of Abbreviations List of publications Curriculum Vitae Dankwoord (Acknowledgements) | 166 168 174 178 180 182 |