



Universiteit
Leiden
The Netherlands

Adjuvant-conjugated peptide vaccines for immunotherapy of cancer

Zom, G.G.P.; Zom G.G.P.

Citation

Zom, G. G. P. (2017, October 19). *Adjuvant-conjugated peptide vaccines for immunotherapy of cancer*. Retrieved from <https://hdl.handle.net/1887/56256>

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/1887/56256>

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

Cover Page



Universiteit Leiden



The handle <http://hdl.handle.net/1887/56256> holds various files of this Leiden University dissertation

Author: Zom, Gijs

Title: Adjuvant-conjugated peptide vaccines for immunotherapy of cancer

Date: 2017-10-19

Adjuvant-conjugated peptide vaccines for immunotherapy of cancer

Gijs Zom

Adjuvant-conjugated peptide vaccines for immunotherapy of cancer

Gijs Zom

The research described in this thesis was performed at the Department of Immunohematology and Bloodtransfusion of the Leiden University Medical Center in The Netherlands. This work was supported by the Dutch Cancer Society (UL2007-3906). Printing of this thesis was sponsored by ISA Pharmaceuticals and Greiner Bio-One.

Lay-out: Gijs Zom

Art director: Suzette van Maanen

Thesis printing: Printservice Ede

ISBN: 978-94-92679-14-7

All rights reserved. Nothing from this thesis may be reproduced in any form without permission from the author.

Copyright © 2017 G.G.P. Zom

Adjuvant-conjugated peptide vaccines for immunotherapy of cancer

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

donderdag 19 oktober 2017, klokke 13.45 uur

door
Gijsbertus Gerardus Petrus Zom
Geboren te Breda in 1984

Promotores

Prof. Dr. F.A. Ossendorp
Prof. Dr. C.J.M. Melief

Leden promotiecommissie

Prof. Dr. A. Geluk
Prof. Dr. H. Ovaa
Prof. Dr. R.E.M. Toes
Prof. Dr. T.D. de Gruijl; VUMC Amsterdam
Prof. Dr. Y. van Kooyk; VUMC Amsterdam

Table of contents

Chapter 1	
Introduction: TLR ligand-peptide conjugate vaccines: toward clinical application	7
Chapter 2	
Efficient induction of antitumor immunity by synthetic Toll-like receptor-ligand peptide conjugates	35
Chapter 3	
N-Tetradecylcarbonyl Lipopeptides as Novel Agonists for Toll-like Receptor 2	53
Chapter 4	
Novel TLR2-binding adjuvant induces enhanced T cell responses and tumor eradication	71
Chapter 5	
TLR2 ligand-synthetic long peptide conjugates effectively stimulate tumor-draining lymph node T cells of cervical cancer patients	93
Chapter 6	
Synergistic DC activation by synthetic peptide-based conjugates triggering both TLR2 and NOD2	115
Chapter 7	
Summary and general discussion	135
Nederlandse samenvatting	152
Dankwoord	157
Curriculum vitae	161
List of publications	163