



Universiteit
Leiden
The Netherlands

The advantages and disadvantages of bioorthogonal proteins

Groenewold, G.J.M.

Citation

Groenewold, G. J. M. (2021, February 17). *The advantages and disadvantages of bioorthogonal proteins*. Retrieved from <https://hdl.handle.net/1887/3142384>

Version: 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/1887/3142384>

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

Cover Page



Universiteit Leiden



The handle <https://hdl.handle.net/1887/3142384> holds various files of this Leiden University dissertation.

Author: Groenewold, G.J.M.

Title: The advantages and disadvantages of bioorthogonal proteins

Issue Date: 2021-02-17

The advantages and disadvantages of bioorthogonal proteins

Proefschrift

ter verkrijging van
de graad van Doctor aan de Universiteit Leiden,
op gezag van Rector Magnificus Prof. dr. ir. H. Bijl,
volgens besluit van het College voor Promoties
te verdedigen op woensdag 17 februari 2021
klokke 15:00 uur

door

Gerdientje Johanna Mirjam Groenewold
Geboren te Harderwijk in 1990

Promotiecommissie

Promotor: Dr. S.I. van Kasteren

Prof. dr. H.S. Overkleeft

Overige leden: Prof. dr. J.M.F.G. Aerts (voorzitter)

Prof. dr. M. van der Stelt (secretaris)

Dr. A.L. Boyle

Prof. dr. G.P. van Wezel

Prof. dr. G. van den Bogaart *Rijksuniversiteit Groningen*

Prof. dr. D.J. Scheffers *Rijksuniversiteit Groningen*

ISBN: 978-94-6421-214-3

Printed by: Ipkamp Printing

Cover design: Mirjam Groenewold

© The copyright of this thesis remains with the author.

No quotation from this thesis should be published without author's prior consent and information derived from it should be acknowledged.

Table of contents

Chapter 1	7
General introduction	
Chapter 2	39
Expression and purification of bioorthogonal ovalbumin	
Chapter 3	81
T cell activation by bioorthogonally labelled tetanus toxin C fragment	
Chapter 4	109
Exploring azido-HRP as a tool in immunocytochemistry	
Chapter 5	143
Summary and future prospects	
Nederlandse samenvatting	165
List of publications	171
CV	172
Dankwoord	176

