



Universiteit
Leiden
The Netherlands

Regulation of autophagy-related mechanisms during bacterial infection

Xie, J.

Citation

Xie, J. (2023, December 5). *Regulation of autophagy-related mechanisms during bacterial infection*. Retrieved from <https://hdl.handle.net/1887/3665695>

Version: Publisher's Version

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

Downloaded from: <https://hdl.handle.net/1887/3665695>

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

Regulation of autophagy-related mechanisms during bacterial infection

Jiajun Xie

Title: Regulation of autophagy-related mechanisms during bacterial infection

Author: Jiajun Xie

PhD thesis, Leiden University

The work was supported by China Scholarship Council.

Thesis cover and layout: Jiajun Xie

Printing: ProefschriftMaken

ISBN: 978-94-6469-674-5

Copyright © 2023 Jiajun Xie. All rights reserved. No part of this thesis may be reproduced, stored in retrieval systems, or transmitted in any form or by any means without prior written permission of the author.

Regulation of autophagy-related mechanisms during bacterial infection

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 dinsdag 5 december 2023

klokke 15:00 uur

door

Jiajun Xie

geboren te Maoming, Guangdong, China
in 1991

Promotores:

Prof. dr. A.H. Meijer

Dr. M.J.M. Schaaf

Promotiecommissie:

Prof. dr. G.P. van Wezel

Prof. dr. H.P. Spaink

Prof. dr. A.F.J. Ram

Prof. dr. C. Barisch (University of Hamburg)

Dr. D. Puri (University of Aachen)

Table of contents

Chapter 1	Introduction and outline of the thesis	7
Chapter 2	DRAM1 confers resistance to <i>Salmonella</i> infection	49
Chapter 3	Xenophagy receptors Optn and p62 and autophagy modulator Dram1 independently promote zebrafish host defense against <i>Mycobacterium marinum</i>	81
Chapter 4	DRAM1 promotes lysosomal delivery of <i>Mycobacterium marinum</i> in macrophage	111
Chapter 5	DRAM1 promotes vesicle fusions leading to antimicrobial peptide delivery	145
Chapter 6	Summary and discussion	181
	Samenvatting	197
	Curriculum vitae	204
	List of publications	205
	Acknowledgements	206