



Universiteit
Leiden
The Netherlands

Microglial lipid metabolism: a delicate balance

Egmond, N. van

Citation

Egmond, N. van. (2025, June 18). *Microglial lipid metabolism: a delicate balance*. Retrieved from <https://hdl.handle.net/1887/4250359>

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/1887/4250359>

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

Microglial lipid metabolism: a delicate balance

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 vrijdag 20 juni 2025

klokke 11.30 uur

door

Noëlle van Egmond

geboren te Rijnsburg, Nederland

in 1995

Promotores: Prof. dr. M. van der Stelt
Prof. dr. S.I. van Kasteren

Promotiecommissie: Prof. dr. M. Ubbink
Prof. dr. J.M.F.G. Aerts
Prof. dr. H.P. Spaink
Dr. K.M. Bongers
Prof. dr. I. Huitinga (Nederlands Herseninstituut)
Dr. L.D. de Witte (Radboud Universitair Medisch Centrum)

ISBN: 978-94-6522-140-3

Printed by: Ridderprint

Cover design by: Noëlle van Egmond

All rights reserved. No parts of this thesis may be reproduced in any manner or by any means without the prior permission from the author.

Table of contents

Chapter 1	7
General introduction	
Chapter 2	19
Activity-based protein profiling of microglial activation states reveals DAGL β and ABHD12 as potential immunomodulatory targets	
Chapter 3	43
DAGL β in the microglial inflammatory response	
Chapter 4	59
Differential regulation of cytokine release by ABHD12 in microglia	
Chapter 5	81
A role for ABHD12 in microglial phagocytosis of myelin debris	
Chapter 6	109
Global proteomic and lipidomic profiling in ABHD12-inactivated microglia	
Chapter 7	137
PLCy2 links TREM2 activation to the endocannabinoid system but not to eicosanoid production in human iPSC-derived microglia	
Chapter 8	163
Summary & future prospects	
Appendices	
Nederlandse samenvatting	178
List of publications	184
Curriculum vitae	185