



Universiteit
Leiden
The Netherlands

INFLAMED FAT: immune modulation of adipose tissue and lipid metabolism

Dam, A.D. van; Dam A.D. van

Citation

Dam, A. D. van. (2017, October 19). *INFLAMED FAT: immune modulation of adipose tissue and lipid metabolism*. Retrieved from <https://hdl.handle.net/1887/54937>

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/1887/54937>

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

Cover Page



Universiteit Leiden



The handle <http://hdl.handle.net/1887/54937> holds various files of this Leiden University dissertation.

Author: Dam, A.D. van

Title: INFLAMED FAT: immune modulation of adipose tissue and lipid metabolism

Issue Date: 2017-10-19

INFLAMED FAT

IMMUNE MODULATION OF ADIPOSE TISSUE
AND LIPID METABOLISM

Andrea van Dam

Inflamed fat:

Immune modulation of adipose tissue and lipid metabolism

2017, Andrea van Dam

Cover design: Ivette van Es

Layout & printing: Sidestone Press

ISBN: 978-90-8890-495-0

INFLAMED FAT

IMMUNE MODULATION OF ADIPOSE TISSUE
AND LIPID METABOLISM

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 16.15 uur

door

Andrea Dingena van Dam
Geboren te Cabanatuan City
in 1988

Promotor Prof. dr. P.C.N. Rensen

Copromotor Dr. M.R. Boon

Leden promotiecommissie

Prof. dr. M. Yazdanbakhsh

Prof. dr. E. Lutgens (AMC, Amsterdam)

Prof. dr. M.P.J. de Winther (AMC, Amsterdam)

Prof. dr. F. Karpe (OCDEM, University of Oxford, Oxford)

The work described in this thesis was performed at the department of Medicine, division of Endocrinology, Leiden University Medical Center, Leiden, The Netherlands, and at Einthoven Laboratory for Experimental Vascular Medicine, Leiden, The Netherlands.

Andrea van Dam was supported by a grant of the Rembrandt Institute of Cardiovascular Science (RICS) to Menno P.J. de Winther, Esther Lutgens and Patrick C.N Rensen.

The printing of this thesis was kindly supported by Sanofi.

TABLE OF CONTENTS

CHAPTER 1	7
General introduction and outline	
CHAPTER 2	23
BCG lowers plasma cholesterol levels and delays atherosclerotic lesion progression in mice	
CHAPTER 3	47
IgG is elevated in obese white adipose tissue but does not induce glucose intolerance via Fcγ-receptor or complement	
CHAPTER 4	71
South Asians have lower expression of interferon signaling genes in white adipose tissue and skeletal muscle compared to white Caucasians	
CHAPTER 5	87
Salsalate activates brown adipose tissue in mice	
CHAPTER 6	115
GPR120 as a novel target to increase lipid oxidation and reduce obesity	
CHAPTER 7	137
General discussion and future perspectives	
ADDENDUM	163
Summary	163
Samenvatting	169
Dankwoord	175
List of publications	179
Curriculum vitae	183

