

Cover Page



Universiteit Leiden



The handle <http://hdl.handle.net/1887/43494> holds various files of this Leiden University dissertation.

Author: Wijsman, L.W.

Title: Blood pressure, cardiac biomarkers and cognitive function in old age

Issue Date: 2016-10-11

Blood pressure, cardiac biomarkers and cognitive function in old age

Liselotte Willemijn Wijsman

ISBN: 978-94-6233-351-2

Cover design: Daniel Chaves (paintings), Maarten Wijsman

Layout & printing: Gildeprint, Enschede

© 2016 Liselotte Wijsman

All rights reserved. No part of this thesis may be produced, stored or transmitted in any form or by any means without permission from the author.

Financial support for printing of this thesis was kindly provided by the Netherlands Consortium for Healthy Ageing (NGI 050-060-810) and Alzheimer-Nederland.

Blood pressure, cardiac biomarkers and cognitive function in old age

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 dinsdag 11 oktober 2016, klokke 15.00 uur

door

Liselotte Willemijn Wijsman

geboren te Brunei
in 1985

Promotor

Prof. dr. R.G.J. Westendorp

Co-promotor

Dr. S.P. Mooijaart

Leden promotiecommissie

Prof. dr. N.H. Chavannes

Prof. dr. R.C. van der Mast

Prof. dr. W.A. van Gool (Academic Medical Center Amsterdam)

Dr. A.M. Lagaay (Spaarne Hospital Hoofddorp)

Contents

Chapter 1	General introduction	7
Part I	Blood pressure, cognitive function and mortality	15
Chapter 2	Association of diastolic blood pressure with cardiovascular events in older people varies upon cardiovascular history	17
Chapter 3	Association of visit-to-visit variability in blood pressure with cognitive function in old age	31
Chapter 4	Blood pressure lowering medication, visit-to-visit blood pressure variability and cognitive function in old age	49
Part II	Cardiac biomarkers in cognitive function	65
Chapter 5	N-terminal pro-brain natriuretic peptide and cognitive decline in older adults at high cardiovascular risk	67
Chapter 6	High-sensitivity cardiac troponin T is associated with cognitive decline in older adults at high cardiovascular risk	85
Part III	Towards prevention of cognitive impairment	103
Chapter 7	Evaluation of the use of home blood pressure measurement using mobile phone-assisted technology: the iVitality proof-of-principle study	105
Chapter 8	General discussion	123
Chapter 9	Nederlandse samenvatting	133
	List of co-authors	141
	List of publications	143
	Curriculum vitae	145
	Dankwoord	147

