



University of Groningen

A quest to optimize the clinical pharmacology of tuberculosis and human immunodeficiency virus drug treatment

Daskapan, Alper

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version Publisher's PDF, also known as Version of record

Publication date: 2018

Link to publication in University of Groningen/UMCG research database

Citation for published version (APA): Daskapan, A. (2018). A quest to optimize the clinical pharmacology of tuberculosis and human immunodeficiency virus drug treatment. Rijksuniversiteit Groningen.

Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license. More information can be found on the University of Groningen website: https://www.rug.nl/library/open-access/self-archiving-pure/taverneamendment.

Take-down policy If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): http://www.rug.nl/research/portal. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

A quest to optimize the clinical pharmacology of tuberculosis and human immunodeficiency virus drug treatment

Alper Daskapan

Daskapan, A.

A quest to optimize the clinical pharmacology of tuberculosis and human immunodeficiency virus drug treatment

Thesis, University of Groningen, the Netherlands

Publication of this thesis was financially supported by University of Groningen, University Medical Center Groningen, Graduate School of Medical Sciences, KNCV Tuberculosis Foundation, Royal Dutch Pharmacists Association (KNMP) and Stichting Beatrixoord Noord-Nederland.



Cover	Andries de Vries
Lay-out	ProefschriftenPrinten.nl
Printed by	ProefschriftenPrinten.nl
ISBN:	978-94-034-1162-0
ISBN:	978-94-034-1161-3 (electronic version)

© Copyright 2018 A. Daskapan, Groningen, The Netherlands

All rights reserved. No part of this thesis may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, by photocopying, recording or otherwise, without the prior written permission of the author.



A quest to optimize the clinical pharmacology of tuberculosis and human immunodeficiency virus drug treatment

Proefschrift

ter verkrijging van de graad van doctor aan de Rijksuniversiteit Groningen op gezag van de rector magnificus prof. dr. E. Sterken en volgens besluit van het College voor Promoties.

De openbare verdediging zal plaatsvinden op

woensdag 21 november 2018 om 12.45 uur

door

Alper Daskapan

geboren op 2 juli 1990 te 's-Gravenhage

Promotores

Prof. dr. T.S. van der Werf Dr. J.W.C. Alffenaar Prof. dr. Y. Stienstra

Beoordelingscommissie

Prof. dr. D.M. Burger Prof. dr. M.A. van Agtmael Prof. dr. H.W. Frijlink

TABLE OF CONTENTS

Chapter 1	General introduction	7
Chapter 2	A systematic review on the effect of HIV infection on the pharmacokinetics of first-line tuberculosis drugs	17
Chapter 3	Predictors of prolonged TB treatment in a Dutch outpatient setting	47
Chapter 4 A B C	Letters to the editor and case-report The never ending struggle against development of drug resistance The role of therapeutic drug monitoring in individualised drug dosage and exposure measurement in tuberculosis and HIV co-infection Raltegravir and rifampicin in patients with HIV and tuberculosis	63 65 69 75
Chapter 5	Development and validation of a bioanalytical method for the simultaneous determination of 14 antiretroviral drugs using liquid chromatography-tandem mass spectrometry	79
Chapter 6	Darunavir population pharmacokinetic model based on HIV outpatient data	99
Chapter 7	Food intake and darunavir plasma concentrations in people living with HIV in an outpatient setting	117
Chapter 8	Risk factors contributing to a low darunavir plasma concentration	129
Chapter 9	General Discussion and Future Perspectives	141
Chapter 10	Summary	153
Chapter 11	Samenvatting	159
	Dankwoord	166
	Curriculum Vitae	172
	Publication List	174

