University of Groningen

Characterization of Different Patient Populations with Atrial Fibrillation

Kloosterman, Mariëlle

DOI:
[10.33612/diss.143841478](https://doi.org/10.33612/diss.143841478)

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:
2020

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Kloosterman, M. (2020). *Characterization of Different Patient Populations with Atrial Fibrillation*. [Thesis fully internal (DIV), University of Groningen]. University of Groningen.
<https://doi.org/10.33612/diss.143841478>

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/taverne-amendment>.

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.

Characterization of Different Patient Populations with Atrial Fibrillation

Mariëlle Kloosterman

Mariëlle Kloosterman

Characterization of Different Patient Populations with Atrial Fibrillation

Financial support for the publication of this thesis by the following institutions and companies is gratefully acknowledged:

University of Groningen, Groningen University for Drug Exploration (GUIDE)

The Dutch Heart Foundation

Abbott Medical Nederland B.V.

Bayer B.V.

Biotronik Nederland B.V.

Boehringer Ingelheim B.V.

Olink Proteomics

Servier Nederland Farma B.V.

© Copyright 2020 M. Kloosterman

ISBN: 978-94-6361-406-1

All rights are reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means (electronic, mechanically, photocopying, recording or otherwise), without the permission of the author, and when appropriate the publisher holding the copyrights of the published articles.

Cover design: Robert Faber

Layout and printing: Optima Grafische Communicatie, Rotterdam, The Netherlands

**rijksuniversiteit
 groningen**

Characterization of Different Patient Populations with Atrial Fibrillation

Proefschrift

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

De openbare verdediging zal plaatsvinden op

maandag 23 november 2020 om 16:15 uur

door

Mariëlle Kloosterman

geboren op 18 maart 1993

Te Zwolle

Promotores

Prof. dr. Isabelle C. Van Gelder

Prof. dr. Michiel Rienstra

Copromotor

Dr. Alexander H. Maass

Beoordelingscommissie

Prof. dr. Rudolf A. De Boer

Prof. dr. Frans H. Rutten

Prof. dr. Karina Meijer

Paranimfen

Robbert Kloosterman MSc

Drs. Valerie Collij

Financial support by the Dutch Heart Foundation and the Groningen Institute for Drug Exploration (GUIDE) for the publication of this thesis is gratefully acknowledged.

TABLE OF CONTENTS

Chapter 1	General introduction and outline of the thesis	9
-----------	--	---

PART I - RISK FACTORS AND SEX DIFFERENCES

Chapter 2	Characteristics and outcomes of atrial fibrillation in patients without traditional risk factors: a RE-LY AF registry analysis <i>Europace. 2020</i>	25
Chapter 3	Sex-related differences in risk factors, outcome, and quality of life in patients with permanent atrial fibrillation: results from the RACE II study <i>Europace. 2019</i>	49
Chapter 4	Sex differences in catheter ablation of atrial fibrillation: results from AXAFA-AFNET 5 <i>Europace. 2020</i>	73

PART II - CONCOMITANT HEART FAILURE

Chapter 5	Genetic risk of atrial fibrillation in patients with heart failure <i>European Journal of Heart Failure. 2020</i>	95
Chapter 6	Comparing biomarker profiles of patients with atrial fibrillation versus sinus rhythm in heart failure with reduced and preserved ejection fraction <i>European Heart Journal. 2018</i>	115
Chapter 7	General discussion and future perspectives <i>In part discussed in book chapters 74 and 90, Sex and Cardiac Electrophysiology (Elsevier. 2020) and the rising prevalence of AF in the elderly population (Europace. 2019)</i>	147
Appendices	I English summary	161
	II Dutch summary Nederlandse samenvatting	166
	III Acknowledgements Dankwoord	170
	IV List of publications	174
	V About the author	178