



UvA-DARE (Digital Academic Repository)

Improved understanding, diagnosis, and treatment of cutaneous and mucosal leishmaniasis in rural Ecuador

Bezemer, J.M.

Publication date
2023

[Link to publication](#)

Citation for published version (APA):

Bezemer, J. M. (2023). *Improved understanding, diagnosis, and treatment of cutaneous and mucosal leishmaniasis in rural Ecuador*. [Thesis, fully internal, Universiteit van Amsterdam].

General rights

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), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations

If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: <https://uba.uva.nl/en/contact>, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.

IMPROVED UNDERSTANDING,
DIAGNOSIS, AND TREATMENT OF
CUTANEOUS AND MUCOSAL
LEISHMANIASIS IN RURAL ECUADOR



Jacob Machiel Bezemer

IMPROVED UNDERSTANDING, DIAGNOSIS, AND TREATMENT
OF CUTANEOUS AND MUCOSAL LEISHMANIASIS IN RURAL
ECUADOR

Jacob Machiel Bezemer

Colophon

IMPROVED UNDERSTANDING, DIAGNOSIS, AND TREATMENT OF CUTANEOUS AND MUCOSAL LEISHMANIASIS IN RURAL ECUADOR

Copyright © 2023 J.M. Bezemer

All rights reserved. No part of this thesis may be reproduced, stored or transmitted in any way or by any means without prior permission of the author, or when applicable, of the publishers of the scientific papers.

This thesis was prepared at the Hospital del día Shell of the Fundación Misión Cristiana de Salud (Day care hospital of the Christian Health Mission Foundation).

Part of the research of this thesis was funded by the foundation Latin Link Nederland

Cover: figurine elaborated by Fanny Gualinga, photos from own collection, design by Mirjam Zwemer-Bezemer

Printed by ProefschriftMaken, Utrecht

Improved understanding, diagnosis, and treatment of cutaneous and mucosal leishmaniasis in rural Ecuador

ACADEMISCH PROEFSCHRIFT

ter verkrijging van de graad van doctor
aan de Universiteit van Amsterdam
op gezag van de Rector Magnificus
prof. dr. ir. P.P.C.C. Verbeek
ten overstaan van een door het College voor Promoties ingestelde commissie,
in het openbaar te verdedigen in de Agnietenkapel
op donderdag 7 september 2023, te 13.00 uur

door Jacob Machiel Bezemer
geboren te Reimerswaal

Promotiecommissie

<i>Promotor:</i>	prof. dr. H.J.C. de Vries	AMC-UvA
<i>Copromotores:</i>	dr. H.D.F.H. Schallig dr. M. Calvopiña Hinojosa	AMC-UvA Universidad de Las Américas
<i>Overige leden:</i>	prof. dr. M. van Vugt prof. dr. C. Schultsz dr. R. Zonneveld dr. E.C. Hasker prof. dr. R. Reis prof. dr. M.W. Bekkenk	AMC-UvA AMC-UvA AMC-UvA ITG Antwerpen Universiteit Leiden Vrije Universiteit Amsterdam

Faculteit der Geneeskunde

To Jesus my King

To my patients

To my marvelous children

Corné

Helen

Arianne

Jacoline

Richard

Erik

To my lovely wife Linda

Table of contents

Chapter 1	General introduction	9
Chapter 2	<i>Leishmania</i> species and clinical characteristics of Pacific and Amazon cutaneous leishmaniasis in Ecuador and determinants of health-seeking delay: a cross-sectional study	29
Chapter 3	Diagnostic accuracy of qPCR and microscopy for cutaneous leishmaniasis in rural Ecuador: A Bayesian latent class analysis	49
Chapter 4	Clinical criteria for Mucosal Leishmaniasis diagnosis in rural South America: a systematic literature review	75
Chapter 5	Safety and efficacy of allylamines in the treatment of cutaneous and mucocutaneous leishmaniasis: a systematic review	93
Chapter 6	Quality of life of cutaneous leishmaniasis suspected patients in the Ecuadorian Pacific and Amazon regions: a cross sectional study	111
Chapter 7	Sensorial perceptions of risk: the aesthetics behind (muco)cutaneous leishmaniasis-related stigma in Ecuador	127
Chapter 8	General discussion	145
Chapter 9	Summary	159
	Samenvatting	163
	Resumen	167
Addendum	Authors affiliations and contributions	171
	PhD Portfolio	177
	Acknowledgments	182
	About the author	186