Comprehensive characterization of Escherichia coli isolated from urine samples of hospitalized patients in Rio de Janeiro, Brazil

da Cruz Campos, Ana

DOI:
10.33612/diss.111520622

Comprehensive characterization of *Escherichia coli* isolated from urine samples of hospitalized patients in Rio de Janeiro, Brazil

The use of next generation sequencing technologies for resistance and virulence profiling and phylogenetic typing

Ana Carolina da Cruz Campos

This Ph.D. project was performed at the Department of Medical Microbiology and Infection Prevention Department of University Medical Center Groningen, University of Groningen, with the support of Hospital Universitário Pedro Ernesto, Universidade do Estado do Rio de Janeiro, in Rio de Janeiro, Brazil. The Abel Tasman Talent pro-gram supported this work. In addition, this work was also supported by the Coordenação de Aperfeiçoamento de Pessoal de Nível Superior - Brasil (CAPES) - Finance Code 001, NTM and by a grant from the Ministry of Science, Research and the Arts of Baden-Württemberg (MWK) within the project "Surveillance von Mehrfach-Antibiotika-Resistenzen." Prof. Ana Claudia de Paula Ignácio and Dr. Paulo Vieira Damasco from the Universidade do Estado do Rio de Janeiro were mentors in this project.

The printing of this thesis was financially supported by:

ISBN: 978-94-034-2206-0 (printed version)
ISBN: 978-94-034-2205-3 (e-book)

Cover design: Andresso F. Agostine (Akili Design)

Printed by IPSKAMP printing

university of groningen

Comprehensive characterization of *Escherichia coli* isolated from urine samples of hospitalized patients in Rio de Janeiro, Brazil

The use of next generation sequencing technologies for resistance and virulence profiling and phylogenetic typing

PhD thesis

to obtain the degree of PhD at the
University of Groningen
on the authority of the
Rector Magnificus Prof. C. Wijmenga
and in accordance with
the decision by the College of Deans.

This thesis will be defended in public on

Monday 20 January 2020 at 9.00 hours

by

Ana Carolina da Cruz Campos

born on 15 July 1986
in Duque de Caxias, Brazil

Supervisor
Prof. J. W. A. Rossen

Co-supervisor
Dr. M. A. Chlebowicz-Flissikowska

Assessment committee
Prof. B. Sinha
Prof. J. Falcão Salles
Prof. P. Savelkoul

Paranimfen
Susie Pinhal
Maria Fernanda Vincenti Gonzalez

Contents