



Universiteit
Leiden
The Netherlands

"Driver or passenger" : an integrated epidemiological and experimental perspective on the association between nontyphoidal salmonella infection and colon cancer

Duijster, J.W.

Citation

Duijster, J. W. (2022, October 12). "Driver or passenger" : an integrated epidemiological and experimental perspective on the association between nontyphoidal salmonella infection and colon cancer. Retrieved from <https://hdl.handle.net/1887/3479752>

Version: Publisher's Version

[Licence agreement concerning inclusion of doctoral thesis in the Institutional Repository of the University of Leiden](#)

License: <https://hdl.handle.net/1887/3479752>

Note: To cite this publication please use the final published version (if applicable).

“DRIVER OR PASSENGER?”

*An integrated epidemiological and experimental perspective
on the association between nontyphoidal *Salmonella*
infection and colon cancer*

Janneke W. Duijster

The research presented in this thesis was supported by the Dutch Cancer Society (KWF) (grant number 2017-1-11001) and the Dutch Ministry for Public Health, Welfare and Sport via 'ZonMw' (grant number 522004001).

ISBN: 978-94-6458-393-9

Cover design: The picture originates from Shutterstock

Lay-out: Publiss | www.publiss.nl

Print: Ridderprint | www.ridderprint.nl

Copyright © 2022 J.W. Duijster.

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, mechanical, photocopying, recording or otherwise, without prior permission or the copyright owner.

“DRIVER OR PASSENGER?”

*An integrated epidemiological and experimental perspective
on the association between nontyphoidal *Salmonella*
infection and colon cancer*

Proefschrift

ter verkrijging van
de graad van doctor aan de Universiteit Leiden,
op gezag van rector magnificus prof.dr.ir H. Bijl,
volgens besluit van het college voor promoties
te verdedigen op woensdag 12 oktober 2022
klokke 11.15 uur

door

Janneke Willemina Duijster

geboren te Ede
in 1991

Promotor

Prof. dr. J.J.C. Neefjes

Co-promotores

Dr. L. Mughini-Gras RIVM/UU

Dr. E. Franz RIVM

Leden promotiecommissie

Prof. dr. R.C. Hoeben

Prof. dr. E.J. Kuijper

Prof. dr. F.R. Rosendaal

Prof. dr. D. van Baarle UMCG/RIVM

Dr. M. Schaapveld NKI-AVL

CONTENTS

| | | |
|------------------|---|-----|
| Chapter 1 | General introduction | 7 |
| Chapter 2 | Occupational risk of salmonellosis and campylobacteriosis: a nationwide population-based registry study | 29 |
| Chapter 3 | Occupational exposure and risk of colon cancer: a nationwide registry study | 69 |
| Chapter 4 | Repetitive exposure to non-typhoidal <i>Salmonellae</i> is an environmental risk factor for colon cancer | 101 |
| Chapter 5 | Association between <i>Salmonella</i> infection and colon cancer: a nationwide registry-based cohort study | 133 |
| Chapter 6 | Severe <i>Salmonella</i> spp. or <i>Campylobacter</i> spp. infection and the risk of biliary tract cancer: a population-based study | 151 |
| Chapter 7 | Bacterial and parasitic pathogens as risk factors for digestive tract cancers: a review of current epidemiological knowledge. | 171 |
| Chapter 8 | From bedside to bench: a molecular epidemiological investigation into the association between nontyphoidal <i>Salmonella</i> infection and colon cancer | 281 |
| Chapter 9 | General discussion | 323 |
| Appendix | Summary | 350 |
| | Samenvatting | 354 |
| | Curriculum Vitae | 360 |
| | List of publications | 362 |
| | Dankwoord | 364 |

