# Brecht Devleesschauwer (°09/09/1986)

### Epidemiologist, PhD DVM MVSc MStat

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### 1 Research interests

- Epidemiology, burden of disease, risk assessment, health economics;
- Bayesian data analysis, true prevalence estimation, meta-analysis, disease mapping;
- Zoonotic diseases, food safety, veterinary public health.

# 2 Employment

- Epidemiologist, 04/2016—present Scientific Institute of Public Health (WIV-ISP), Brussels, Belgium
- Assistant scientist, global food safety and zoonoses, 06/2015–03/2016
   University of Florida, Gainesville, USA
- Post-doctoral researcher, 04/2015 Ghent University, Merelbeke, Belgium
- Contracted technical expert, 09/2013–12/2013, 02/2014–03/2014 World Health Organization, Geneva, Switzerland
- Doctoral researcher, 10/2010-03/2015
   Ghent University, Merelbeke, Belgium
   Université catholique de Louvain, Brussels, Belgium

## 3 Education

### 3.1 Academic titles

• Ph.D. Veterinary Sciences & Ph.D. Public Health, 2010–2015

Ghent University, Merelbeke, Belgium

Université catholique de Louvain, Brussels, Belgium

Dissertation topic: "The Burden of Zoonoses in Nepal"

Promoters: Prof. Dr. P. Dorny, Prof. Dr. N. Speybroeck, Prof. Dr. L. Duchateau

• Doctoral Training Programme, 2010–2015

Doctoral School of Life Sciences and Medicine, Ghent University, Belgium

• M.Sc. Statistics (biometrics), 2011–2014

Katholieke Universiteit Leuven, Louvain, Belgium; Great distinction Dissertation topic: "Quantitative Microbial Risk Assessment with R" Promoters: Prof. Dr. G. Molenberghs, Prof. Dr. C. Faes

• M.Sc. Veterinary Medicine (research & industry), 2007–2010 Ghent University, Merelbeke, Belgium; Greatest distinction Dissertation topic: "The Epidemiology of Taenia solium in Nepal" Promoter: Prof. Dr. P. Dorny

• B.Sc. Veterinary Medicine, 2004–2007 Ghent University, Merelbeke, Belgium; Greatest distinction

### 3.2 Short courses

• GBD Technical Training Workshop, 2014 IHME (University of Washington) @ Crete, Greece

• Advanced Academic English Conference Skills, 2013 UCT (Ghent University), Ghent, Belgium

- Introduction to Health Economics, Francqui Chair Pr. Annemans, 2013 Université catholique de Louvain, Brussels, Belgium
- Introduction to Infectious Disease Modelling and Its Applications, 2013 LSHTM, London, UK
- Modelling Infectious Diseases and Health Economic Evaluation of Vaccines, 2013

Antwerp University, Antwerp, Belgium

- Writing for Non-Specialists and Press, 2013 UCT (Ghent University), Ghent, Belgium
- Analyses and Graphics with RExcel, 2012 Université catholique de Louvain, Louvain-la-Neuve, Belgium
- Getting Started with High Performance Computing, 2012 Ghent University, Merelbeke, Belgium
- Mathematical and Epidemiological Modeling of Endemic Infectious Disease,  $2012\,$

Cornell University @ ISVEE congress, Ghent, Belgium

• Workshop Impact and Research Communication Skills, 2012 Ghent University, Merelbeke, Belgium • Basic Course on Veterinary Epidemiology, 2011 Ghent University, Merelbeke, Belgium

# 4 Professional experiences

### 4.1 Contributions to peer review

• Reviewer for international scientific journals, e.g.:

Acta Tropica, Advances in Parasitology, BMC Infectious Diseases, BMJ Case Reports, Bulletin of the World Health Organization, Health Affairs, Parasitology International, PLOS Neglected Tropical Diseases, PLOS ONE, Risk Analysis, The Lancet, Transactions of the Royal Society of Tropical Medicine & Hygiene, Vector-Borne and Zoonotic Diseases

## 4.2 Participation in international projects

- Risk forecasting workgroup vice-leader, 2015–present EU COST action FA1408 EURO-FBP
- Epidemiology workgroup leader, 2013-present EU COST action TD1302 CYSTINET—www.cystinet.org
- Computational Task Force member, 2011–present Country Studies Task Force member, 2011–present Foodborne Disease Burden Epidemiology Reference Group, WHO

# 4.3 Participation in international development projects

- USAID Feed the Future Innovation Lab on Livestock Systems, 2015–2020 Project granted to UF, aiming to improve livestock systems in Mali, Burkina Faso, Ethiopia, Rwanda, Nepal and Cambodia
  - Contribution to project proposal
  - Participation in "Livestock Disease Management and Food Safety" AOI
- VLIR-UOS Institutional University Cooperation with Jimma University, Ethiopia, 2012–2016

 $Collaboration\ between\ Jimma\ University\ and\ different\ Flemish\ universities\ to\ strenghten\ institutional\ capacity$ 

- Organisation of a workshop on design of experiments
- Supervision of Master students

• Doctoral research in Nepal, 2010–2015

Collection and analysis of data on the burden of zoonotic and foodborne diseases, during a 6 months' stay

Impact assessment and control of cysticercosis in the Indian Subcontinent, 2007–2009

VLIR-UOS collaboration between Institute of Tropical Medicine (Antwerp, Belgium) and National Zoonoses and Food Hygiene Research Centre (Kathmandu, Nepal)

- Field work, lab work, data analysis

### 4.4 Contributions as invited expert

- Expert panel on FDA-iRisk DALY templates. Research Triangle International, NC, USA; 2016.
- Expert consultation to discuss preliminary results of the joint WHO/IHME analysis of causes of death among children aged 5–14 years in the WHO European Region. WHO Regional Office for Europe, Copenhagen, Denmark; 2015.
- Trend analysis applied to parameter/matrix combinations from the the control plan. Federal Agency for the Safety of the Food Chain, Brussels, Belgium; 2014.
- FAO/WHO Expert Meeting on Risk-based examples for Control of *Trichinella* spp. and *Taenia saginata* in meat. World Health Organization, Geneva, Switzerland; 2013–2014.

## 4.5 Logistic responsibilities

### 4.5.1 Management of research centers

• Founding member, 2014–present Center for Burden and Risk Assessment, www.cbra.be

### 4.5.2 Organisation of national and international conferences

• Member of scientific committee 1st International CYSTINET Conference, 3–4 November 2015, Belgrade, Serbia

#### 4.5.3 Other

• Event organizer, 2012–2014 RBelgium, the Belgian R user group • Rapporteur, November 2010
Fourth meeting of the Foodborne Disease Burden Epidemiology Reference Group
WHO Headquarters, Geneva, Switzerland

### 5 Skills

### 5.1 Languages

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• Dutch
            speaking+++ reading+++ writing+++
• English
            speaking+++ reading+++
                                     writing+++
• French
            speaking++
                         reading+++
                                      writing++
• German
            speaking+
                         reading++
                                      writing+
• Nepali
            speaking+
                         reading+
                                      writing+
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## 5.2 Computer skills

- Statistical software: R, WinBUGS, OpenBUGS, JAGS, SAS, Stata
- Advanced R skills: package development, Tcl/Tk interfaces, Shiny applications
- Design and programming: html, javascript, php, mysql, LATEX, markdown, C++
- Windows and MS Office: Word, Excel, Powerpoint, Access

# 6 Teaching

### 6.1 Courses

 Quantitative microbial risk assessment of pathogens in food systems ANS 6932 / FOS 6936, University of Florida, February 26-March 4, 2016

## 6.2 Workshops

- CYSTINET Epidemiology Training School, 1–3 September 2014 Institute of Tropical Medicine, Antwerp, Belgium Contents: introduction to R, systematic review and meta-analysis, GIS
- National Workshop on Design of Experiments for Statisticians and Practitioners, 28–29 March 2013

Jimma University, Jimma, Ethiopia

Partims: introduction to R, analysis of variance

### 6.3 Lectures

• Topics in tropical veterinary medicine, 2013–2016

MSc Veterinary Medicine, Ghent University

• Food safety: an introduction, 2015

Environmental Health Concepts in Public Health, PHC 6313, University of Florida

• Concepts of health economics, 2013–2014

MSc Public Health, Université catholique de Louvain

• Burden of disease and the Disability-Adjusted Life Year, 2013–2015

MSc Public Health, Université catholique de Louvain

MSc Health and Development, Université catholique de Louvain

MSc Occupational Medicine, Université catholique de Louvain

BSc Biomedical Sciences, Université catholique de Louvain

• Diagnostic test characteristics and true prevalence, 2013–2014

MSc Public Health, Université catholique de Louvain

MSc Health and Development, Université catholique de Louvain

### 6.4 Practicals

• Biomedical statistics, 2012–2014

BSc Veterinary Medicine, Ghent University

• Applied biomedical statistics, 2013–2014

MSc Veterinary Medicine, Ghent University

### 6.5 Promoter of 4 short-term scientific missions

• Fabian Dupont, October 2015

MSc Medicine, Technische Universität München

Health and economic impact of Taenia solium neurocysticercosis in Uganda

• Uffe Christian Braae, December 2014

PhD Veterinary Medicine, University of Copenhagen

Development of a Taenia solium transmission model

• Dr Hardy Richter, September 2014

Research associate, Munich Global Neurology Group

Landscape analysis of *Taenia solium* neurocysticercosis in Europe

• Chiara Trevisan, July 2014

PhD Veterinary Medicine, University of Copenhagen

Burden assessment of Taenia solium cysticercosis in Tanzania

## 6.6 (Co)supervisor of 16 MSc students

• Louise Vanhecke, 2015–16

MSc Veterinary Medicine, Ghent University

Vector-borne diseases in Nepal (literature review)

Promoters: **Devleesschauwer B**, Dorny P

• Febe Vanpoucke, 2015–16

MSc Veterinary Medicine, Ghent University

Parasitic zoonoses in Ethiopia (literature review)

Promoters: **Devleesschauwer B**, Dorny P

• Alexia Lescart, 2015–16

MSc Public Health, Université catholique de Louvain

Socioeconomic inequalities in diarrhea in Nepal (original research)

Promoters: Speybroeck N, Devleesschauwer B

• Sonia Chebac, 2015–16

MSc Public Health, Université catholique de Louvain

Clinical impact of *Giardia* (original research)

Promoters: Speybroeck N, Devleesschauwer B

• Sara Hanna, 2015–16

MSc Public Health, Université catholique de Louvain

Burden of Crohn disease in Belgium (original research)

Promoters: Speybroeck N, Devleesschauwer B

• Judth Verduijn, 2014–15

MSc Veterinary Medicine, Ghent University

Tick-borne zoonoses in Belgium (literature review)

Promoters: **Devleesschauwer B**, Claerebout E

• Eveline Jansen, 2014–15

MSc Veterinary Medicine, Ghent University

Rabies in Ethiopia (original research)

Promoters: Dorny P, Devleesschauwer B

• Tom Slegh, 2014–15

MSc Veterinary Medicine, Ghent University

Diapause in *Anopheles* mosquitoes (literature review)

Promoters: Duchateau L, Devleesschauwer B

• Joke Yzerwyn, 2013–14

MSc Veterinary Medicine, Ghent University

Opisthorchis spp. in South-East Asia (literature review)

Promoters: Dorny P, Devleesschauwer B

• Norbert van de Velde, 2013–14

MSc Veterinary Medicine, Ghent University

Toxoplasmosis in marine mammals (original research)

Promoters: Dorny P, Devleesschauwer B

• Gerhardina (Gerdien) Huisman, 2013–14

MSc Veterinary Medicine, Ghent University

Zooprophylaxis: a malaria control strategy (original research)

Promoters: Duchateau L, Yewhalaw D, Devleesschauwer B

• Eveline Jansen, 2012–13

MSc Veterinary Medicine, Ghent University

Rabies in Ethiopia (literature review)

Promoters: Dorny P, Devleesschauwer B

• Norbert van de Velde, 2012–13

MSc Veterinary Medicine, Ghent University

Toxoplasmosis in marine mammals (literature review)

Promoters: Dorny P, Devleesschauwer B

• Gerhardina (Gerdien) Huisman, 2012–13

MSc Veterinary Medicine, Ghent University

Zooprophylaxis: a malaria control strategy (literature review)

Promoters: Duchateau L, Yewhalaw D, Devleesschauwer B

• Rudolf Spiekers, 2011–12

MSc Veterinary Medicine, Ghent University

Toxoplasmosis in wild felids (literature review)

Promoters: Dorny P, Devleesschauwer B

• Jani Van Pelt, 2011–12

MSc Veterinary Medicine, Ghent University

Echinococcosis in Ethiopia (original research)

Promoters: Dorny P, Devleesschauwer B

# 6.7 (Co)supervisor of 8 BSc students

• Ziqi Wang, 2015–16

BSc Biochemistry, University of Florida

Epidemiology of *Taenia solium* in Central America (original research)

Promoter: **Devleesschauwer** B

• Carolina De La Rosa Mateo, 2015–16

BSc Health Sciences, University of Florida

Burden of free-living protozoa in the USA (original research)

Promoter: Devleesschauwer B

• Natalie Bonilla, 2015–16

BSc Health Sciences, University of Florida

Toxoplasma gondii risk in different food items (original research)

Promoter: Devleesschauwer B

• Jolien De Keulenaer, 2014–15

BSc Biomedical Sciences, Antwerp University

Taenia saginata taeniosis/cysticercosis in Belgium (literature review)

Promoters: **Devleesschauwer B**, Smit S

• Liene Bossaerts, 2013–14

BSc Biomedical Sciences, Antwerp University

Lyme disease in the Benelux (literature review)

Promoters: **Devleesschauwer B**, Speybroeck N

• Yannick Van der Venne, 2012–13

BSc Biomedical Sciences, Antwerp University

Listeriosis in Belgium (literature review)

Promoters: **Devleesschauwer B**, Speybroeck N

• Nina Redzic, 2012–13

BSc Biomedical Sciences, Antwerp University

Neurological symptoms of toxoplasmosis in adults (literature review)

Promoters: **Devleesschauwer B**, Speybroeck N

• Anne Declercq, 2011–12

BSc Biomedical Sciences, Antwerp University

Rabies in Nepal (literature review)

Promoters: **Devleesschauwer B**, Speybroeck N

# 7 Scientific output

## 7.1 Peer-reviewed papers

Google Scholar metrics: 326 citations  $\cdot$  h-index 10  $\cdot$  i10-index 12

- [48] Maertens de Noordhout C, **Devleesschauwer B**, Maertens de Noordhout A, Blocher J, Haagsma JA, Havelaar AH, Speybroeck N (2016) Comorbidities and factors associated with central nervous system infections and death in non-perinatal listeriosis: a clinical case series. *BMC Public Health*, in press
- [47] Trevisan C, **Devleesschauwer B**, Schmidt V, Winkler AS, Harrison W, Johansen MV (2016) The societal cost of *Taenia solium* cysticercosis in Tanzania. *Acta Trop*, in press. doi: 10.1016/j.actatropica.2015.12.021

- [46] **Devleesschauwer B**, Allepuz A, Dermauw V, Johansen MV, Laranjo-González M, Smit GSA, Sotiraki S, Trevisan C, Wardrop NA, Dorny P, Gabriël S (2016) *Taenia solium* in Europe: still endemic? *Acta Trop*, in press. doi: 10.1016/j.actatropica.2015.08.006
- [45] Sharma BK, Manandhar S, Devleesschauwer B (2016) Serological evidence of type 2 (North American genotype) porcine reproductive and respiratory syndrome virus in Nepal. Trop Anim Health Prod 48:663-666. doi: 10.1007/s11250-015-0986-1
- [44] Devleesschauwer B, Aryal A, Sharma BK, Ale A, Declercq A, Depraz S, Gaire TN, Gongal G, Karki S, Pandey BD, Pun SB, Duchateau L, Dorny P, Speybroeck N (2016) Epidemiology, impact and control of rabies in Nepal: a systematic review. PLOS Negl Trop Dis 10:e0004461. doi: 10.1371/journal.pntd.0004461
- [43] Laranjo-González M, Devleesschauwer B, Gabriël S, Dorny P, Allepuz A (2016) Epidemiology, impact and control of bovine cysticercosis in Europe: a systematic review. Parasit Vectors 9:81. doi: 10.1186/s13071-016-1362-3
- [42] Hoffmann S, Aspinall W, Cooke R, Cawthorne A, Corrigan T, Havelaar A, Gibb H, Torgerson P, Kirk M, Angulo F, Lake R, Speybroeck N, **Devleesschauwer B**, Hald T (2016) Research synthesis methods in an age of globalized risks: Lessons from the global burden of foodborne disease expert elicitation. *Risk Anal* 36:191-202. doi: 10.1111/risa.12385
- [41] Hald T, Aspinall T, **Devleesschauwer B**, Cooke R, Corrigan T, Havelaar AH, Gibb HJ, Torgerson PR, Kirk MD, Angulo FJ, Lake RJ, Speybroeck N, Hoffmann S (2016) World Health Organization estimates of the relative contributions of food to the burden of disease due to selected foodborne hazards: a structured expert elicitation. *PLOS ONE* 11:e0145839. doi: 10.1371/journal.pone.0145839
- [40] Tromme I, Legrand C, **Devleesschauwer B**, Leiter U, Suciu S, Eggermont A, Francart J, Calay F, Haagsma JA, Baurain J-F, Thomas L, Beutels P, Speybroeck N (2016) Melanoma burden by melanoma stage: assessment through a disease transition model. *Eur J Cancer* 53:33-41. doi: 10.1016/j.ejca.2015.09.016
- [39] Tigre W, Deresa B, Haile A, Gabriël S, Victor B, Van Pelt J, **Devleesschauwer B**, Vercruysse J, Dorny P (2016) Molecular characterisation of *Echinococcus granulosus* s.l. cysts from cattle, camels, goats and pigs in Ethiopia. *Vet Parasitol* 215:17-21. doi: 10.1016/j.vetpar.2015.10.022
- [38] Pires SM, Fischer-Walker CL, Lanata CF, **Devleesschauwer B**, Hall AJ, Kirk MD, Duarte ASR, Black RE, Angulo FJ (2015) Aetiology-specific estimates of the global and regional incidence and mortality of diarrhoeal diseases commonly transmitted through food. *PLOS ONE* 10:e0142927. doi: 10.1371/journal.pone.0142927
- [37] Devleesschauwer B, Haagsma JA, Angulo FJ, Bellinger DC, Cole D, Döpfer D, Fazil A, Fèvre EM, Gibb H, Hald T, Kirk MD, Lake RJ, Maertens de Noordhout C, Mathers CD, McDonald SA, Pires SM, Speybroeck N, Thomas MK, Torgerson PR,

- Wu F, Havelaar AH, Praet N (2015) Methodological framework for World Health Organization estimates of the global burden of foodborne disease. *PLOS ONE* 10:e0142498. doi: 10.1371/journal.pone.0142498
- [36] Lake R, Devleesschauwer B, Nasinyama G, Havelaar A, Kuchenmüller T, Haagsma J, Jensen H, Jessani N, Maertens de Noordhout C, Angulo F, Ehiri J, Molla L, Agaba F, Aungkulanon S, Kumagai Y, Speybroeck N (2015) National studies as a component of the World Health Organization initiative to estimate the global and regional burden of foodborne disease. PLOS ONE 10:e0140319. doi: 10.1371/journal.pone.0140319
- [35] Torgerson PR, **Devleesschauwer B**, Praet N, Speybroeck N, Willingham AL, Kasuga F, Rokni MB, Zhou X-N, Fevre E, Sripa B, Gargouri N, Fürst T, Budke CM, Carabin H, Kirk MD, Angulo FJ, Havelaar AH, de Silva N (2015) World Health Organization estimates of the global and regional disease burden of 11 foodborne parasitic diseases, 2010: a data synthesis. *PLoS Med* 12:e1001920. doi: 10.1371/journal.pmed.1001920
- [34] Kirk MD, Pires SM, Black RE, Caipo M, Crump JA, **Devleesschauwer B**, Döpfer D, Fazil A, Fischer-Walker CL, Hald T, Hall AJ, Keddy KH, Lake R, Lanata CF, Torgerson PR, Havelaar AH, Angulo FJ (2015) World Health Organization estimates of the global and regional disease burden of 22 foodborne bacterial, protozoal and viral diseases, 2010: a data synthesis. *PLoS Med* 12:e1001921. doi: 10.1371/journal.pmed.1001921
- [33] Gibb HJ, Devleesschauwer B, Bolger PM, Wu F, Ezendam J, Cliff J, Zeilmaker M, Verger P, Pitt J, Baines J, Adegoke G, Afshari R, Liu Y, Bokkers B, van Loveren H, Mengelers M, Havelaar A, Bellinger D (2015) World Health Organization estimates of the global and regional disease burden of four foodborne chemical toxins, 2010: a data synthesis. F1000 Research 4:1393. doi: 10.12688/f1000research.7340.1
- [32] Havelaar AH, Kirk MD, Torgerson PR, Gibb H, Hald T, Lake RJ, Praet N, Angulo FJ, Bellinger DC, De Silva NR, Gargouri N, Speybroeck N, Cawthorne A, Mathers C, Stein C, Devleesschauwer B (2015) World Health Organization global estimates and regional comparisons of the burden of foodborne disease, 2010. PLoS Med 12:e1001923. doi: 10.1371/journal.pmed.1001923
- [31] Salomon JA, Haagsma JA, Davis A, Maertens de Noordhout C, Polinder S, Havelaar AH, Cassini A, **Devleesschauwer B**, Kretzschmar M, Speybroeck N, Murray CJ, Vos T (2015) Disability weights for the Global Burden of Disease 2013 study. *Lancet Glob Health* 3:712-723. doi: 10.1016/S2214-109X(15)00069-8
- [30] Gabriël S, Johansen MV, Pozio E, Smit S, **Devleesschauwer B**, Allepuz A, Dorny P (2015) Human migration and pig/pork import in the European Union: what are the implications for *Taenia solium* infections? *Vet Parasitol* 213:38-45. doi: 10.1016/j.vetpar.2015.03.006

- [29] Braae UC, Saarnak CF, Mukaratirwa S, Devleesschauwer B, Magnussen P, Johansen MV (2015) Distribution of *Taenia solium* taeniosis/cysticercosis and coendemicity with schistosomiasis in Africa. *Parasit Vectors* 8:323. doi: 10.1186/s13071-015-0938-7
- [28] Devleesschauwer B, Smit GSA, Dorny P, van der Giessen JW, Gabriël S (2015) Neurocysticercosis in Europe: need for a one health approach [Letter to the Editor]. Neuropediatrics 46:354-355. doi: 10.1055/s-0035-1558437
- [27] Dorny P, **Devleesschauwer B**, Stoliaroff V, Meas S, Chea R, Chea B, Sourloing H, Samuth S, Kong S, Nguong K, Sorn S, Holl D, Vercruysse J (2015) Prevalence and associated risk factors of *Toxocara vitulorum* infections in buffalo and cattle calves in central Cambodia. *Korean J Parasitol* 53:197-200. doi: 10.3347/kjp.2015.53.2.197
- [26] Gowda TK, Reddy VR, Devleesschauwer B, Zade N, Chaudhari S, Khan W, Shinde S, Patil A (2015) Isolation and seroprevalence of Aeromonas spp. among common food animals slaughtered in Nagpur, Central India. Foodborne Pathog Dis 12:626-630. doi: 10.1089/fpd.2014.1922
- [25] Haagsma JA, Maertens de Noordhout C, Polinder S, Vos T, Havelaar AH, Cassini A, Devleesschauwer B, Kretzschmar M, Speybroeck N, Salomon JA (2015) Assessing disability weights based on the responses of 30,660 people from four European countries. Popul Health Metr 13:10. doi: 10.1186/s12963-015-0042-4
- [24] McDonald SA, Devleesschauwer B, Speybroeck N, Hens N, Praet N, Torgerson PR, Havelaar AH, Wu F, Tremblay M, Amene EW, Döpfer D (2015) Data-driven methods for imputing national-level incidence rates in global burden of disease studies. Bull World Health Org 93:228-236. doi: 10.2471/BLT.14.139972
- [23] Levecke B, Anderson RM, Berkvens D, Charlier J, Devleesschauwer B, Speybroeck N, Vercruysse J, Van Aelst S (2015) Mathematical inference on helminth egg counts in stool and its applications in mass drug administration programmes to control soil-transmitted helminthiasis in public health. Adv Parasitol 87:193-247. doi: 10.1016/bs.apar.2015.01.001
- [22] Speybroeck N, **Devleesschauwer B**, Depoorter P, Dewulf J, Berkvens D, Van Huffel X, Saegerman C (2015) Needs and expectations regarding risk ranking in the food chain: a pilot survey amongst decision makers and stakeholders. *Food Control* 54:135-143. doi: 10.1016/j.foodcont.2014.12.041
- [21] **Devleesschauwer B**, Praet N, Speybroeck N, Torgerson PR, Haagsma JA, De Smet K, Murrell D, Pozio E, Dorny P (2015) The low global burden of trichinellosis: evidence and implications. *Int J Parasitol* 45:95-99. doi: 10.1016/j.ijpara.2014.05.006
- [20] Tromme I, Devleesschauwer B, Beutels P, Richez P, Leroy A, Baurain JF, Cornélis F, Bertrand C, Legrand N, Degueldre J, Thomas L, Legrand C, Haagsma JA, Speybroeck N (2014) Health related quality of life in melanoma patients expressed as

- index values and disability weights: a Belgian study.  $Br\ J\ Dermatol\ 171:1443-1450.$  doi: 10.1111/bjd.13262
- [19] Devleesschauwer B, Maertens de Noordhout C, Smit GSA, Duchateau L, Dorny P, Stein C, Van Oyen H, Speybroeck N (2014) Quantifying burden of disease to support public health policy in Belgium: opportunities and constraints. BMC Public Health 14:1196. doi: 10.1186/1471-2458-14-1196
- [18] Tromme I, **Devleesschauwer B**, Beutels P, Richez P, Praet N, Sacré L, Marot L, Van Eeckhout P, Theate I, Baurain JF, Thomas L, Speybroeck N (2014) Selective use of digital dermoscopy allows a cost reduction in the melanoma detection process: a Belgian study of patients with a single or a small number of atypical nevi. *PLOS One* 9:e109339. doi: 10.1371/journal.pone.0109339
- [17] Maertens de Noordhout C, **Devleesschauwer B**, Angulo FJ, Verbeke G, Haagsma J, Kirk M, Havelaar A, Speybroeck N (2014) The global burden of listeriosis: a systematic review and meta-analysis. *Lancet Infect Dis* 14:1073-1082. doi: 10.1016/S1473-3099(14)70870-9
- [16] Coral-Almeida M, Rodríguez-Hidalgo R, Celi-Erazo M, García HH, Rodríguez S, Benítez-Ortiz W, Devleesschauwer B, Dorny P, Praet N (2014) Incidence and transmission dynamics of human cysticercosis in a *Taenia solium* Ecuadorian endemic area: implications for disease burden assessment and control. *PLoS Negl Trop Dis* 8:e2887. doi: 10.1371/journal.pntd.0002887
- [15] Devleesschauwer B, Havelaar AH, Maertens de Noordhout C, Haagsma JA, Praet N, Dorny P, Duchateau L, Torgerson PR, Van Oyen H, Speybroeck N (2014) DALY calculation in practice: a stepwise approach. Int J Public Health 59:571-574. doi: 10.1007/s00038-014-0553-y
- [14] Devleesschauwer B, Havelaar AH, Maertens de Noordhout C, Haagsma JA, Praet N, Dorny P, Duchateau L, Torgerson PR, Van Oyen H, Speybroeck N (2014) Calculating disability-adjusted life years to quantify burden of disease. *Int J Public Health* 59:565-569. doi: 10.1007/s00038-014-0552-z
- [13] Henrard S, Devleesschauwer B, Beutels P, Callens M, De Smet F, Hermans C, Speybroeck N (2014) The health and economic burden of haemophilia in Belgium: a rare, expensive and challenging disease. Orphanet J Rare Dis 9:39. doi: 10.1186/1750-1172-9-39
- [12] Ale A, Victor B, Praet N, Gabriël S, Speybroeck N, Dorny P, Devleesschauwer B (2014) Epidemiology and genetic diversity of *Taenia asiatica*: a systematic review. Parasit Vectors 7:45. doi: 10.1186/1756-3305-7-45
- [11] **Devleesschauwer B**, Ale A, Torgerson P, Praet N, Maertens de Noordhout C, Pandey BD, Pun SB, Lake R, Vercruysse J, Joshi DD, Havelaar AH, Duchateau

- L, Dorny P, Speybroeck N (2014) The burden of parasitic zoonoses in Nepal: a systematic review. *PLoS Negl Trop Dis* 8:e2634. doi: 10.1371/journal.pntd.0002634
- [10] Devleesschauwer B, Pruvot M, Joshi DD, De Craeye S, Jennes M, Ale A, Welinski A, Lama S, Aryal A, Victor B, Duchateau L, Speybroeck N, Vercruysse J, Dorny P (2013) Seroprevalence of zoonotic parasites in pigs slaughtered in the Kathmandu Valley of Nepal. Vector Borne Zoonotic Dis 13:872-876. doi: 10.1089/vbz.2013.1313
  - [9] Speybroeck N, Van Malderen C, Harper S, Müller B, Devleesschauwer B (2013) Simulation models for socioeconomic inequalities in health: a systematic review. Int J Environ Res Public Health 10:5750-5780. doi: 10.3390/ijerph10115750
  - [8] Speybroeck N, **Devleesschauwer B**, Joseph L, Berkvens D (2013) Misclassification errors in prevalence estimation: Bayesian handling with care. *Int J Public Health* 58:791-795. doi: 10.1007/s00038-012-0439-9
  - [7] Kanobana K, Devleesschauwer B, Polman K, Speybroeck N (2013) An agent-based model of exposure to human toxocariasis: a multi-country validation. Parasitology 140:986-998. doi: 10.1017/S0031182013000310
  - [6] Devleesschauwer B, Ale A, Duchateau L, Dorny P, Lake R, Dhakal P, Pun SB, Pandey BD, Speybroeck N (2013) Understanding the burden of disease in Nepal: a call for local evidence. J Nepal Health Res Counc 11:221-224
  - [5] Devleesschauwer B, Aryal A, Tharmalingam J, Joshi DD, Rijal S, Speybroeck N, Gabriël S, Victor B, Dorny P (2013) Complexities in using sentinel pigs to study Taenia solium transmission dynamics under field conditions. Vet Parasitol 193:172-178. doi: 10.1016/j.vetpar.2012.12.010
  - [4] Speybroeck N, Williams CJ, Lafia KB, Devleesschauwer B, Berkvens D (2012) Estimating the prevalence of infections in vector populations using pools of samples. Med Vet Entomol 26:361-371. doi: 10.1111/j.1365-2915.2012.01015.x
  - [3] **Devleesschauwer B**, Aryal A, Joshi DD, Rijal S, Sherchand JB, Praet N, Speybroeck N, Duchateau L, Vercruysse J, Dorny P (2012) Epidemiology of *Taenia solium* in Nepal: is it influenced by the social characteristics of the population and the presence of *Taenia asiatica*? *Trop Med Int Health* 17:1019-1022. doi: 10.1111/j.1365-3156.2012.03017.x
  - [2] Charlier J, Levecke B, **Devleesschauwer B**, Vercruysse J, Hogeveen H (2012) The economic effects of whole-herd versus selective anthelmintic treatment strategies in dairy cows. *J Dairy Sci* 95:2977-2987. doi: 10.3168/jds.2011-4719
  - [1] Pant B, Devleesschauwer B, Shrestha P, Shrestha I, Praet N, Dorny P (2011) Intraventricular Taenia solium neurocysticercosis: a report of three cases. JNMA J Nepal Med Assoc 51:192-195

### 7.2 Submitted papers

- [11] Braae UC, **Devleesschauwer B**, Gabriël S, Dorny P, Speybroeck N, Magnussen P, Torgerson P, Johansen MV. cystiSim ÂÜ an agent-based model for *Taenia solium* transmission and control. *Proc Natl Acad Sci U S A*
- [10] Goudet S, Jayaraman A, Chanani S, Osrin D, Devleesschauwer B, Bogin B, Madise N, Griffiths P. Cost effectiveness of a programme for community management of acute malnutrition in Mumbai slums, India. Cost Eff Resour Alloc
  - [9] Devleesschauwer B, Dorny P, Faes C, Havelaar AH, Torgerson PR, Speybroeck N. Burden and Risk Assessment of Foodborne Parasites [Book Chapter]. In: Ortega Y, Sterling C (eds) Foodborne Parasites, 2nd ed
  - [8] **Devleesschauwer B**, Bouwknegt M, Mangen M-JJ, Havelaar AH. Health and Economic Burden of Campylobacter [Book Chapter]. *In: Klein G (ed) Campylobacter: Features, Detection, and Prevention of Foodborne Disease*
  - [7] Maertens de Noordhout C, **Devleesschauwer B**, Gielens L, Plasmans MHD, Haagsma JA, Speybroeck N. Mapping EQ-5D utilities to GBD 2010 and GBD 2013 disability weights: results of two pilot studies in Belgium. *Popul Health Metr*
  - [6] van de Velde N, **Devleesschauwer B**, Leopold M, Begeman L, Ijsseldijk LL, Hiemstra S, Ijzer J, Brownlow A, Davison N, Jauniaux T, Siebert U, Dorny P, De Craeye S. *Toxoplasma gondii* in stranded marine mammals from the North Sea and Atlantic Ocean: findings and diagnostic difficulties. *Vet Parasitol*
  - [5] Smit GSA, Apers L, Arrazole de Onate W, Beutels P, Dorny P, Forier A-M, Janssens K, Macq J, Mak R, Schol S, Wildemeersch D, Speybroeck N, Devleesschauwer B. Cost-effectiveness of tuberculosis screening policies in Flanders, Belgium. Bull World Health Org
  - [4] Asale A, Huisman G, **Devleesschauwer B**, Speybroeck N, Duchateau L, Yewhalaw D. Zooprophylaxis as a malaria control strategy for *Anopheles* arabiensis: a systematic review. *Med Vet Entomol*
  - [3] Robertson LJ, **Devleesschauwer B**, de Noya BA, Noya González O, Torgerson PR. Trypanosoma cruzi—time for international recognition as a foodborne pathogen. PLOS Negl Trop Dis
  - [2] McDonald SA, **Devleesschauwer B**, Wallinga J. The impact of individual-level heterogeneity on estimated infectious disease burden: a simulation study. *Popul Health Metr*
  - [1] Rahman AA, Smit S, **Devleesschauwer B**, Abatih E, Saegerman C, Ahmed MU, Shamsuddin M, Speybroeck N, Berkvens D. Bayesian estimation of the true exposure prevalence, sensitivity and specificity of three serological tests for the diagnosis of bovine brucellosis in Bangladesh. *PLOS ONE*

### 7.3 Oral presentations

- [23] Hoffmann S, Cooke R, Aspinall W, **Devleesschauwer B**, Hald T (2016) Global food attribution estimates for 11 major pathogens for the global burden of foodborne disease initiative. Presented at the *IAFP 2016*; 3 Aug 2016; St. Louis, MO, USA.
- [22] **Devleesschauwer B** (2016) Methodology to estimate disease burden. Presented at the *IAFP 2016*; 3 Aug 2016; St. Louis, MO, USA.
- [21] Hoffmann S, Cooke R, Aspinall W, **Devleesschauwer B**, Cawthorne A, Hald T (2016) Estimates of the global burden of foodborne disease and their implications for international benefits assessment. Presented at the 8th Annual Conference of the Society for Benefit-Cost Analysis; 17 Mar 2016; Washington, DC, USA.
- [20] **Devleesschauwer B** (2015) Methodological framework for WHO estimates of the global burden of foodborne disease. Presented at the *FERG symposium: Global burden foodborne diseases-from data to action*; 15-16 Dec 2015; Amsterdam, Netherlands.
- [19] **Devleesschauwer B** (2015) Tips and tricks on writing a paper and getting it published. Presented at the *Animal Genetics Seminar*; 1 Dec 2015; Gainesville, FL, USA.
- [18] **Devleesschauwer B**, Claes L, Dorny P (2015) Foodborne parasites in Belgium. Presented at the 1st EURO-FBP Working Group Meeting; 26 Oct 2015; Zagreb, Croatia.
- [17] Maertens de Noordhout C, Devleesschauwer B, Lamarrana D, Haagsma J, Havelaar A, Quoilin S, Bertrand S, Dupont Y, Vandenberg O, Brandt P, Speybroeck N (2015) Current and future Disability-Adjusted Life Years (DALYs) of Salmonella and Campylobacter in Belgium. Presented at the Methods in Epidemiology Symposium; 17 Sep 2015; Leuven, Belgium.
- [16] Pires S, Hall A, Fischer-Walker C, Lanata C, Devleesschauwer B, Duarte AS, Kirk M, Black RE, Angulo F (2015) Global and regional incidence and mortality of diarrheal diseases commonly transmitted through food: Estimates from the WHO Foodborne Epidemiology Reference Group. Presented at the IAFP 2015; 28 Jul 2015; Portland, OR, USA.
- [15] Charlier J, Levecke B, **Devleesschauwer B**, Vande Velde F, Verschave S, Claerebout E, Vercruysse J (2015) ParaCalc®—outils informatiques pour maitriser le parasitisme en élevage bovin. Presented at the *Journées Nationales 2015 des Groupements Techniques Vétérinaires*; 20-22 May 2015; Nantes, France.
- [14] **Devleesschauwer B** (2015) Quantifying uncertainty in Disability-Adjusted Life Year calculations. Presented at the *6th SIMID Workshop*; 29 Apr 2015; Antwerp, Belgium.

- [13] Devleesschauwer B, Torgerson P, Charlier J, Levecke B, Praet N, Roelandt S, Smit S, Dorny P, Berkvens D, Speybroeck N (2014) Bayesian estimation of true prevalence from apparent prevalence in R: Introducing the "prevalence" package. Presented at the Berliner Kolloquium—Statistische Methoden in der Empirischen Forschung; 9 Dec 2014; Berlin, Germany.
- [12] **Devleesschauwer B** (2014) Unravelling the burden of zoonoses in Nepal. Presented at the *University of Florida*, *Emerging Pathogens Institute*, *Seminar Series*; 18 Nov 2014; Gainesville, FL, USA.
- [11] **Devleesschauwer B**, Speybroeck N (2014) Understanding, interpreting and calculating Disability-Adjusted Life Years. Presented at the *Scientific Institute of Public Health (WIV-ISP)*, Seminar Series; 11 Mar 2014; Brussels, Belgium.
- [10] **Devleesschauwer B**, Praet N, Dorny P, Duchateau L, Speybroeck N (2013) DALY calculation in practice: a stepwise approach. Presented at the 6th European Public Health Conference (EUPHA 2013): Health in Europe, are we there yet?; 14-16 Nov 2013; Brussels, Belgium.
- [9] Maertens de Noordhout C, **Devleesschauwer B**, Angulo FJ, Haagsma JA, Havelaar AH, Speybroeck N (2013) Global burden of listeriosis. Presented at the 6th European Public Health Conference (EUPHA 2013): Health in Europe, are we there yet?; 14-16 Nov 2013; Brussels, Belgium.
- [8] Speybroeck N, Van Malderen C, Harper S, Müller B, **Devleesschauwer B** (2013) Simulation models for socioeconomic inequalities in health: a systematic review. Presented at the 6th European Public Health Conference (EUPHA 2013): Health in Europe, are we there yet?; 14-16 Nov 2013; Brussels, Belgium.
- [7] Praet N, **Devleesschauwer B**, Dorny P, Duchateau L, Speybroeck N (2013) What are disability-adjusted life years? Presented at the 6th European Public Health Conference (EUPHA 2013): Health in Europe, are we there yet?; 14-16 Nov 2013; Brussels, Belgium.
- [6] **Devleesschauwer B**, Dorny P, Duchateau L, Speybroeck N (2013) Unravelling the burden of parasitic zoonoses in Nepal. Presented at the *Joint NVP/BSP scientific meeting 2012: Challenges for the control of parasites*; 19 Oct 2013; Antwerp, Belgium.
- [5] Charlier J, Devleesschauwer B, van der Voort M, Vercruysse J (2013) Can we develop farm-specific models for assessing the cost/benefits of TST approaches? Presented at the GLOWORM 2nd General Assembly/Scientific Meeting; 16-18 Sep 2013; Dublin, Ireland.
- [4] **Devleesschauwer B** (2013) DALY's and burden of disease. Presented at the *Institute of Tropical Medicine*, *Methodological Seminar Series*; 7 Jun 2013; Antwerp, Belgium.

- [3] Henrard S, Hermans C, **Devleesschauwer B**, Speybroeck N (2012) Assessment of the health and the economic burden of haemophilia in Belgium: a rare, very expensive and largely unknown disease with multiple public health challenges. Presented at the 5th European Public Health Conference (EUPHA 2012): All Inclusive Public Health; 8-10 Nov 2012; Portomaso, St. Julian's, Malta.
- [2] **Devleesschauwer B**, Dorny P, Duchateau L, Speybroeck N (2012) Élucidation du fardeau des zoonoses parasitaires au Népal. Presented at the 5ième Congrès international d'Épidémiologie (ADELF-EPITER): Épidémiologie et santé mondialisée; 12-14 Sep 2012; Brussels, Belgium.
- [1] Charlier J, Levecke B, **Devleesschauwer B**, Vercruysse J, Hogeveen H (2011) The economic effects of blanket versus selective anthelmintic treatment strategies in dairy cows. Presented at the 23rd international conference of the World Association for the Advancement of Veterinary Parasitology; 21-25 Aug 2011; Buenos Aires, Argentina.

### 7.4 Poster presentations

- [5] Smit GSA, Padalko E, Van Acker J, Dorny P, Speybroeck N, Claerebout E, **Devleesschauwer B** (2016) The public health impact of congenital cytomegalovirus infection in Belgium. Presented at the *European Congenital Cytomegalovirus Initiative Conference*; 24-26 Apr 2016; Venice, Italy.
- [4] van de Velde N, **Devleesschauwer B**, Decraeye S, Barnett J, Begeman L, Brownlow A, Davison N, Ijzer J, Jauniaux T, Hiemstra S, Siebert U, Dorny P (2014) Toxoplasma gondii in marine mammals. Presented at the 28th Annual Conference of the European Cetacean Society: Marine mammals as sentinels of a changing environment; 5-9 Apr 2014; Liège, Belgium.
- [3] **Devleesschauwer B**, Havelaar A, Haagsma J, Praet N, Dorny P, Duchateau L, Speybroeck N (2012) Le "DALY Calculator": une interface graphique pour le calcul des DALYs en R. Presented at the 5ième Congrès international d'Épidémiologie (ADELF-EPITER): Épidémiologie et santé mondialisée; 12-14 Sep 2012; Brussels, Belgium.
- [2] Nalon E, Maes D, **Devleesschauwer B**, Millet S, Van Riet M, Janssens G, Tuyttens F (2012) Assessment of mechanical nociception thresholds in lame versus non-lame sows with two methods. Presented at the 4th European symposium of Porcine Health Management; 25-27 Apr 2012; Bruges, Belgium.
- [1] **Devleesschauwer B**, Dorny P, Duchateau L, Speybroeck N (2011) Unravelling the burden of parasitic zoonoses in Nepal. Presented at the *Journée des doctorants:* école doctorale thématique: santé publique, santé et société; 17 Nov 2011; Brussels, Belgium.

### 7.5 Reports

- [5] World Health Organization (2015) WHO estimates of the global burden of foodborne diseases. Foodborne diseases burden epidemiology reference group 2007-2015. Geneva: WHO Press.
- [4] Smit S, **Devleesschauwer B**, Apers L, Macq J, Beutels P, Speybroeck N (2015) Evaluation of the cost-effectiveness of the tuberculosis policies in Flanders. Report submitted to the Agency for Care and Health.
- [3] Food and Agriculture Organization of the United Nations, World Health Organization (2014) Risk based examples for control of *Trichinella* spp. and *Taenia saginata* in meat. Report of a joint FAO/WHO expert meeting, 22–25 October 2013, WHO Headquarters, Geneva, Switzerland.
- [2] World Health Organization (2014) WHO initiative to estimate the global burden of foodborne diseases: fifth formal meeting of the Foodborne Disease Burden Epidemiology Reference Group (FERG), 8–12 April 2013, Geneva, Switzerland. Geneva: WHO Press.
- [1] World Health Organization (2014) WHO initiative to estimate the global burden of foodborne diseases: fourth formal meeting of the Foodborne Disease Burden Epidemiology Reference Group (FERG): Sharing New Results, Making Future Plans, and Preparing Ground for the Countries. Geneva: WHO Press.

## 7.6 R Packages

- [8] Devleesschauwer B, Braae UC (2016) cystiSim: Agent-Based Model for Taenia solium Transmission and Control. R package version 0.1.0. http://cran. r-project.org/package=cystiSim
- [7] **Devleesschauwer B** (2016) bd: brechtdv's helper functions. R package version 0.0.11. https://github.com/brechtdv/bd
- [6] Devleesschauwer B, Faes C, Havelaar A, Speybroeck N (2016) QMRA: Parametric Models for Quantitative Microbial Risk Assessment. R package version 0.0.14. https://github.com/brechtdv/QMRA
- [5] **Devleesschauwer B** (2016) **HFA**: R Interface to European Health for All Database (HFA-DB). R package version 0.0.0.9004. https://github.com/brechtdv/HFA
- [4] **Devleesschauwer B**, McDonald S (2015) FERG: DALY Calculation Framework for WHO/FERG. R package version 0.1.0. https://github.com/brechtdv/FERG
- [3] **Devleesschauwer B**, Willimès S, Van Malderen C, Konings P, Speybroeck N (2015) rineq: Statistical Analysis of Health Inequalities. R package version 0.0.1. https://github.com/brechtdv/rineq

- [2] Devleesschauwer B, Torgerson PR, Charlier J, Levecke B, Praet N, Roelandt S, Smit G, Dorny P, Berkvens D, Speybroeck N (2015) prevalence: Tools for Prevalence Assessment Studies. R package version 0.4.0. http://cran.r-project.org/package=prevalence
- [1] **Devleesschauwer B**, McDonald S, Haagsma J, Praet N, Havelaar A, Speybroeck N (2014) **DALY**: The DALY Calculator—A GUI for stochastic DALY calculation in R. R package version 1.4.0. http://cran.r-project.org/package=DALY

## 7.7 Vulgarizing articles

- [4] Havelaar AH, **Devleesschauwer B**. One in 10 globally suffer from foodborne diseases, WHO study finds. EPI News, 3 December 2015.
- [3] Speybroeck N, Maertens de Noordhout C, **Devleesschauwer B**. Des nombres pour des aliments sûrs. La Libre Belgique, 12 April 2015.
- [2] Speybroeck N, Maertens de Noordhout C, **Devleesschauwer B**. Comment les nombres rendent vos aliments plus sûrs. Le Soir, 8 April 2015.
- [1] Speybroeck N, Maertens de Noordhout C, **Devleesschauwer B**. Hoe getallen je voedsel veiliger maken. De Morgen, 7 April 2015.

## 8 Scientific honors and awards

- PhD Scholarship, Special Research Fund (BOF), Ghent University; 2010
- Pfizer Award for the best Master thesis in Veterinary Medicine; 2010
- Dr Paul Janssen Award for the best Master student in Veterinary Medicine; 2010
- Floribert Jurion Fund, Royal Academy for Overseas Sciences; 2009
- Travel grant, BIOS, Ghent University; 2008
- Travel grant, Flemish Inter-University Council—University Development Cooperation (VLIR-UOS); 2007

Brecht Devleesschauwer

27 May 2016