





PERSONAL INFORMATION

Arie Hendrik Havelaar



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Sex Male | Date of birth 05/09/1949 | Nationality the Netherlands

POSITION

Professor

WORK EXPERIENCE

2014-current

Professor

Institute for Sustainable Food Systems, Emerging Pathogens Institute and Animal Sciences Department

University of Florida
Gainesville, FL, USA

- Research on global food systems and foodborne diseases

Business or sector Research, teaching and extension

2007-current

Professor

Institute for Risk Assessment Sciences

Faculty of Veterinary Medicine

University of Utrecht

Utrecht, the Netherlands

- Research on risk assessment and burden of foodborne diseases

Business or sector Research and teaching

1978- 2014

Principal scientist

Centre for Zoonoses and Environmental Microbiology

National Institute for Public Health and the Environment

Bilthoven, the Netherlands

- Research, risk assessment and policy advice on food and water safety and zoonoses

Business or sector Governmental research organisation

1974- 1978

Head, Biology Section

Chemical and Bacteriological Service

Rotterdam Waterworks

Rotterdam, the Netherlands

- Quality assurance of drinking water, limnology of raw water storage reservoirs

Business or sector Drinking water supply

EDUCATION AND TRAINING

- 1996-1998 **Epidemiology, MSc**
Netherlands Institute for Health Sciences, Rotterdam., the Netherlands
 - Epidemiology and biostatistics

- 1986 **Mathematics and Biology, PhD**
Utrecht State University, Utrecht, the Netherlands
 - Thesis: F-specific RNA bacteriophages as model viruses in water treatment processes
 - Promotores: prof. dr. W.P.M. Hoekstra (Utrecht University, prof. dr. L. Lijklema (Wageningen University)

- 1967-1973 **Chemical Engineering, MSc (with honours)**
Delft University of Technology,, Delft, the Netherlands
 - Major in technical microbiology

PERSONAL SKILLS

Mother tongue(s) Dutch

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
French, German	B1	B1	B1	B1	B1

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
Common European Framework of Reference for Languages

- Communication skills
 - Good communication skills obtained through participation in scientific committees and other professional activities
 - Experienced speaker at scientific conferences
 - Experienced teacher at university level (BSc, MSc, PhD)

- Organisational / managerial skills
 - Experience as manager of a microbiological laboratory (30-70 persons) in a governmental research organisation
 - Leading projects funded by Dutch authorities or research funders and the EU
 - Organizer of scientific conferences

- Job-related skills
 - Supervision of MSc and PhD students

- Computer skills
 - Good command of Microsoft Office™ tools
 - Intermediate experience with mathematical and statistical computer software (@RISK, Analytica, Mathematica, R)
 - Intermediate experience with Adobe Photoshop and Lightroom
 - Training courses in water treatment, public health microbiology, quality assurance, management skills and mathematical modelling

- Other skills
 - Photography (hobby)

- Driving licence
 - B/E (Netherlands) and E (Florida)

ADDITIONAL INFORMATION

International activities

- Member Scientific Panel on Biological Hazards, European Food Safety Authority, Parma, Italy (2006-2015; vice-chair since 2012)
- Chair, Foodborne Disease Burden Epidemiology Reference Group, World Health Organization, Geneva, Switzerland (2007-current)

Honours and awards

- 1995: Fellow of the American Academy of Microbiology (USA)
- 2001: Rudolf Schülke Hygiene Award (Germany)
- 2014: Jenner Medal (RIVM, Bilthoven, the Netherlands)
- 2014: Risk Analysis Best Paper Award (USA)

Memberships

- Nederlandse Vereniging voor Microbiologie
- American Society for Microbiology
- Society for Risk Analysis
- International Association for Food Protection

PUBLICATIONS

Peer-reviewed papers

- Havelaar AH, Swart A. Impact of waning acquired immunity and asymptomatic infections on case-control studies for enteric pathogens. Submitted for publication.
- Havelaar AH, Graveland H, Van De Kasstelee J, Zomer TP, Veldman K, Bouwknegt M. A summary index for antimicrobial resistance in food animals in the Netherlands. Submitted for publication.
- Franssen F, Swart A, Van der Giessen J, Havelaar A, Takumi K. Parasite to patient: a quantitative risk model for *Trichinella* spp. in pork and wild boar meat. Submitted for publication.
- Haagsma JA, Mangen M-JJ, Van Lier EA, Plass D, Cassini A, Colzani E, Havelaar AH, Kretzschmar MEE. Defining health states and adjusting for comorbidity in a pathogen and incidence-based DALY approach. Submitted for publication.
- Pacholewicz E, Lipman L, Swart A, Havelaar Arie, Heemskerck W. Brushing of broiler carcasses at the beginning of processing reduces bacterial concentrations. *Poultry Sci*, accepted for publication.
- Kirk MD, Havelaar AH, Angulo FJ, Black RJ. High global burden of diarrhoeal disease, especially in children, due to contaminated food. *Bull World Health Org*, accepted for publication.
- Pacholewicz E, Swart A, Wagenaar JA, Lipman LJ, Havelaar AH. Explanatory variables associated with *Campylobacter* and *Escherichia coli* concentrations on broiler chicken carcasses during processing in two slaughterhouses. *J Food Prot*, accepted for publication.
- Maertens de Noordhout C, Devleeschauwer B, Maertens de Noordhout A, Blocher J, Haagsma J, Havelaar A, Speybroeck N. Comorbidities and factors associated with central nervous system infections and death in non-perinatal listeriosis: a clinical case series. *BMC Infectious Diseases*, accepted for publication.
- Van Leuken JPG, Swart AN, Droogers P, Heederik D, Havelaar AH. Climate change effects on airborne pathogenic bioaerosol concentrations - a scenario analysis. *Aerobiologia*. Accepted for publication.
- Haagsma JA, Mangen MJ-M, Van Lier A, Plass D, Cassini A, Colzani E, Havelaar AH, Kretzschmar MEE, on behalf of the BCoDE consortium. Estimating the burden of infectious diseases – defining health states and adjusting for comorbidity. *Int J Food Microbiol*. Accepted for publication.
- Kuehne A, Bouwknegt M, Havelaar A, Gilsdorf A, Stark K, Werber D, HUS active surveillance network Germany. Estimating true incidence of O157 and non-O157 Shiga toxin-producing *Escherichia coli* illness in Germany based on notification data of Haemolytic Uremic Syndrome. *Epidemiol Inf*, 2016,, doi:10.1017/S0950268816001436.
- Mangen M-JJ, Havelaar AH, Haagsma JA, Kretzschmar MEE. The burden of *Campylobacter*-associated disease in six European countries. *Microb Risk Anal*, 2016,, doi:10.1016/j.mran.2016.04.001.
- Cassini A, Hathaway S, Havelaar A, Koopmans M, Koutsourmanis K, Messens W, Muller-Seitz G, Nørrung B, Rizzi V, Scheutz F. 2016. Microbiological risk assessment. *EFSA Journal* 2016;14(S1):s0507, doi:10.2903/j.efsa.2016.s0507
- Pacholewicz E, Barus SAS, Swart A, Havelaar AH, Lipman LJA, Luning PA. Influence of food handlers' compliance with procedures of poultry carcasses contamination: a case study concerning evisceration in broiler slaughterhouses. *Food Contr*, 2016;68:367-378. doi: 10.1016/j.foodcont.2016.04.009
- Van Lier A, McDonald SA, Bouwknegt M, Kretzschmar ME, Havelaar A, Mangen, M-JJ, Wallinga J, De Melker H. Disease burden of 32 infectious diseases in the Netherlands, 2007-2011. *PLoS One*, 11(4): e0153106. doi:10.1371/journal.pone.0153106.
- Van Leuken J, Swart A, Brandsma J, Terink W, Van de Kasstelee J, Droogers P, Sauter F, Havelaar AH, Van der Hoek W. Human Q fever incidence is associated to spatiotemporal environmental conditions. *One Health* 2016;2:77-87. doi: 10.1016/j.onehlt.2016.03.004.
- World Health Organization, Foodborne Epidemiology Reference Group, Source Attribution Task Force. Research Synthesis Methods in an Age of Globalized Risks: Lessons from the Global Burden of Foodborne Disease Expert Elicitation. *Risk Anal* 2016;36:191–202. doi:10.1111/risa.12385.
- Aspinall WP, Cooke RM, Havelaar AH, Hoffmann S, Hald T. Evaluation of a Performance-Based Expert Elicitation: WHO Global Attribution of Foodborne Diseases. *PLoS One* 2016;11:e0149817. doi:
- Gibb H, Devleeschauwer 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, Brandon E, Havelaar AH, Bellinger DC. Asian Implications of Aflatoxin and Dioxin Foodborne Chemical Exposures Based on World Health Organization Estimates. *Asia Pacific J Med Tox* 2016;4:130-132. doi:
- Hald T, Aspinall W, Devleeschauwer B, Cooke R, Corrigan T, Havelaar AH, Gibb H, Torgerson PR, Kirk MD, Angulo FJ, Lake RJ, Speybroeck N, Hoffmann S. 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* 2016;11: e0145839. doi:10.1371/journal.pone.0145839. doi:
- Van Leuken JPG, Swart AN, Havelaar AH, Van Pul A, Van der Hoek W, Heederik D. Atmospheric dispersion modelling of bioaerosols that are pathogenic to humans and livestock – a review to inform risk assessment studies. *Microb Risk Anal* 2016;1:19-39. doi: 10.1016/j.mran.2015.07.002
- Gibb H, Devleeschauwer 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, Havelaar A, Van Loveren H, Mengelers M, Bellinger DC. World Health Organization Estimates of the Global and Regional Disease Burden of Four Foodborne Chemicals and Toxins, 2010: a data synthesis [version 1; referees: 1 approved with reservations] *F1000Research*. 2015;4:1393. doi: 10.12688/f1000research.7340.1.
- Havelaar AH, Kirk MD, Torgerson PR, Gibb HJ, Hald T, Lake RJ, Praet N, Bellinger DC, de Silva NR, Gargouri N, Speybroeck N, Cawthorne A, Mathers C, Stein C, Angulo FJ, Devleeschauwer B, on behalf of the World Health Organization Foodborne Disease Burden Epidemiology Reference Group. World Health Organization global estimates and regional comparisons of the burden of foodborne disease in 2010. *PLOS Med* 2015;12: e1001923. doi: 10.1371/journal.pmed.1001923.
- Devleeschauwer 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. Methodological framework for World Health Organization estimates of the global burden of foodborne disease. *PLOS One* 2015;10:e0142498. doi: 10.1371/journal.pone.0142498
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- Salomon JA, Haagsma JA, Davis A, Maertens de Noordhout C, Polinder S, Havelaar AH, Cassini A, Devleeschauwer B, Kretzschmar M, Speybroeck N, Murray CJ, Vos T. Disability weights for the Global Burden of Disease 2013 study. *Lancet Glob Health*. 2015;3(11):e712-723.

- Maertens de Noordhout C, Devleeschauwer B, Lamarana D, Haagsma J, Havelaar A, Quoilin S, Bertrand S, Dupont Y, Vandenberg O, Brandt P, Speybroeck N. Current and future Disability-Adjusted Life Years (DALYs) of Salmonella and Campylobacter in Belgium. *Arch Publ Health* 2015;73(Suppl 1):K3. doi:10.1186/2049-3258-73-S1-K3.
- Pacholewicz E, Liakopoulos A, Swart A, Gortemaker B, Dierix, C, Havelaar A, Schmitt H. Reduction of extended-spectrum- β -lactamase- and AmpC- β -lactamase-producing *Escherichia coli* through processing in two broiler chicken slaughterhouses. *Int J Food Microbiol* 2015;215:57-63. doi: 10.1016/j.ijfoodmicro.2015.08.010
- Hill AA, Dewé T, Kosmider R, Von Dobschuetz S, Munoz O, Hannab A, Fusaro A, De Nardi M, Stevens K, Kelly L, Havelaar A, Howard H, Stärk K. Modelling the species jump: assessing the risk of human infection from novel avian influenzas. *Roy Soc Open Sci*, 2015;2:150173. doi: 10.1098/rsos.150173.
- Van Den Wijngaard CC, Hofhuis A, Harms MG, Haagsma JA, Wong A, De Wit GA, Havelaar AH, Lugnér AK, Suijkerbuijk AWM, Van Pelt W. The burden of Lyme Borreliosis expressed in Disability-Adjusted Life Years. *Eur J Publ Health* 2015;25:1071-1078. doi 10.1093/eurpub/ckv091.
- Pacholewicz E, Swart A, Schipper M, Gortemaker BGM, Wagenaar JA, Havelaar AH, Lipman JJA. A comparison of fluctuations of Campylobacter and E. coli concentrations on broiler chicken carcasses during processing in two slaughterhouses. *Int J Food Microbiol* 2015;205:119-127. doi:10.1016/j.ijfoodmicro.2015.04.006.
- Haagsma JA, Maertens de Noordhout C, Polinder S, Vos T, Havelaar AH, Cassini A, Devleeschauwer B, Kretzschmar M, Speybroeck N, Salomon J. The European disability weights study: assessing disability weights based on the responses of 30,660 people from four European countries. *Pop Health Metr* 2015;13:10. doi 10.1186/s12963-015-0042-4.
- Van Leuken JPG, Van De Kassteel J, Sauter FJ, Van Der Hoek W, Havelaar AH, Swart AN. Improved correlation of human Q fever incidence to modelled *C. burnetii* concentration by means of an atmospheric dispersion model. *Int J Health Geogr*. 2015;14:14. doi:10.1186/s12942-015-0003-y.
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- Maertens de Noordhout C, Devleeschauwer B, Angulo FJ, Verbeke G, Haagsma JA, Kirk M, Havelaar AH, Speybroeck N. The global burden of listeriosis: a systematic review and meta-analysis. *Lancet Infect Dis* 2014;14:1073-1082. doi: 10.1016/S1473-3099(14)70870-9.
- Haagsma JA, Polinder S, Cassini A, Colzani E, Havelaar AH. Systematic review of disability weight studies: comparison of methodological choices and values. *Pop Health Metrics* 2014;12:20. doi: 10.1186/s12963-014-0020-2.
- Bouwknegt M, Van Pelt W, Kubbinga ME, Weda M M, Havelaar AH. Recent increase in campylobacteriosis incidence in The Netherlands associated with proton-pump inhibitor use. *Eurosurv* 2014; 19(32):pii=20873.
- Van Den End S, Van Der Giessen J, Havelaar A, Opsteegh M. Eigenaren bereid katten te vaccineren tegen Toxoplasma. *Tijdschr Diergeneeskd* 2014,139:48-49.
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- Devleeschauwer B, Havelaar AH, Maertens de Noordhout C, Haagsma JA, Praet N, Dorny P, Duchateau L, Torgerson PR, Van Oyen H, Speybroeck N. DALY calculation in practice: a stepwise approach. *Int J Publ Health* 2014;59:571-574. doi: 10.1007/s0038-014-0553-y.
- Devleeschauwer B, Havelaar AH, Maertens de Noordhout C, Haagsma JA, Praet N, Dorny P, Duchateau L, Torgerson PR, Van Oyen H, Speybroeck N. Calculating Disability-Adjusted Life Years to quantify burden of disease. *Int J Publ Health* 2014;59:565-569. doi: 10.1007/s0038-014-0552-z.
- Mughini Gras L, Smid JH, Wagenaar JA, De Boer A, Havelaar AH; Friesema IH, French NP, Graziani C, Busani L; Van Pelt W. Campylobacteriosis in returning travelers and potential secondary transmission of exotic strains. *Epidemiol Inf* 2014;1277-1288. doi: 10.1017/S0950268813002069.
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- Gibbons CL, Mangen M-JJ, Plass D, Havelaar AH, Brooke RJ, Kramarz P, Peterson KL, Stuurman AL, Cassini A, Fèvre EM, Kretzschmar MEE. Measuring underreporting and under-ascertainment in infectious disease datasets: a comparison of methods. *BMC Public Health*. 2014;14:147. doi:10.1186/1471-2458-14-147.
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- Mughini Gras L, Smid J, Wagenaar JA, Koene M, Havelaar AH; Friesema IHM, French NP, Flemming C, Galson J, Graziani C, Busani L; Van Pelt W. Increased risk for Campylobacter jejuni and C. coli infection of pet origin in dog owners and evidence for genetic association between strains causing infection in humans and their pets. *Epidemiol Inf* 2013;141:2526-2532. doi: 10.1017/S0950268813000356.
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- Smid JH, Havelaar AH, De Boer A, French N, Mughini-Gras L, Wagenaar J, Van Pelt W. Practicalities of using non-local or non-recent reference data for source attribution in space and time of human Campylobacter infections using multilocus sequence typing. *PLoS ONE* 2013;8:e55029. doi:10.1371/journal.pone.0055029.
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Book chapters

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PRESENTATIONS SINCE 2000

American Society for Microbiology, Salt Lake City, 19/22-05-2002, invited paper and poster
 EFFI Symposium "Microbiologische risico's in de keten", Wageningen, 30-05-2002, invited paper.
 1st International Conference on Microbiological Risk Assessment, College Park, MD, 24/26-07-2002, invited paper.
 American Association of Agricultural Economists, Long Beach, CA, 28/31-07-2002, invited paper.
 Nationaal Congres Voedselveiligheid, Rotterdam, 25-09-2002, invited paper.
 XIIIth National Microbiological Congress, Bilbao, Spain, 18/19-09-2002, invited paper.
 Nederlandse Vereniging voor Microbiologie, Sectie Levensmiddelenmicrobiologie, Wageningen, 03-10-2002, invited paper.
 Workshop Pathogenic Viruses in Water, RIVM, Bilthoven, 12-03-2003, invited paper.
 12th International Meeting on Campylobacter, Helicobacter and Related Organisms, Aarhus, Denmark, 6/10-09-2003, keynote paper and posters.
 Food Law Enforcement Practitioners in Europe, Working Group on Emerging Risks, Den Haag, 26-10-2003, guest lecture.
 Nederlandse Vereniging voor Microbiologie, Sectie Levensmiddelenmicrobiologie, Wageningen, 20-11-2003, invited paper.
 5th World Congress Foodborne Infections and Intoxications, Berlin, 7/11-06-2004, keynote paper and poster.
 Workshop on Approaches to Predictive Modeling to Support a Framework to Prioritize Opportunities to Reduce Food Safety Risk, June 15-16, 2004, Iowa State University, Ames, IA, invited paper.
 Symposium "Ons eten gemeten", RIVM, Bilthoven, the Netherlands, September 3, 2004. Jungbauern- und Jungwinzertag, 24 Oktober 2004, Ettelbrück, Luxemburg, keynote paper.
 Swedish Seminar on possibilities for Campylobacter risk management. Stockholm, 28-29 October 2004, invited paper.
 Society for Risk Analysis 2004 Annual Meeting, December 5-8, 2004, Palm Springs, California, USA, offered paper and poster.
 Conference on Food Risk Assessment, April 5, 2005, Bilbao, Spain, invited speaker.
 Workshop on DALYs, April 26, National Food Administration, Uppsala, Sweden, keynote speaker.
 105th General Meeting American Society for Microbiology, 5-9 June 2005, Atlanta, Georgia, USA. Symposium Campylobacter: from farm to phylogeny, invited speaker
 COST 920 Working Group 3 Workshop on microbiological risk assessment, 26-28 June 2005, Dubrovnik, Croatia, session chair and invited speaker.
 Institute for Environmental Science and Research, Christchurch and Wellington, New Zealand, 30 August and 1 September 2005, international fellow.
 New Zealand Food Safety Administration, Wellington, New Zealand, 2 September 2005, invited speaker.
 13th International Workshop on Campylobacter, Helicobacter and related organisms, 4-8 September 2005, Gold Coast, Queensland, Australia, offered paper and panel discussion.
 Cambridge Conference: Interventions against Campylobacter, 14-15 September 2005, Cambridge, UK, invited speaker.
 Challenges in managing food-derived risk, 13 December 2005, National Academy of Sciences, Washington, DC, USA, invited speaker.
 FAO/WHO Preconference workshop on Microbial Risk Assessment, Sydney, Australia, 20 February 2006, invited speaker.
 2nd International Conference on Microbial Risk Assessment: Foodborne Hazards, Sydney, Australia, 21-23 February 2006, opening address.
 Journées Scientifiques de l'Agence Française de Sécurité Sanitaire des Aliments (AFSSA), Maisons-Alfort, France, 15 March 2006, invited speaker.
 World Poultry Science Association, Forli, Italy, 30 March 2006, invited speaker.
 Med-Vet-Net Annual Meeting, Malta, 3-6 May 2006, speaker.
 International Conference on Priority setting of Foodborne and Zoonotic Pathogens, 19-21 July, Berlin, Germany, invited speaker.
 ILSI Europe General Assembly, 27-28 February 2007, Brussels Belgium, invited speaker.
 Conference Zoonoses: from Science to Policy, 4-7 November 2007, Glasgow, Scotland, invited speaker.
 Health Protection Agency Annual Conference, Warwick, UK; 15 September 2008, invited speaker.
 Japan Food Safety Commission, Tokyo; 16-17 November 2008, guest lecturer.
 Society for Risk Analysis Annual Meeting, Boston, USA; 7-10 December 2008, workshop speaker.
 15th International Workshop on Campylobacter, Helicobacter and related organisms, Niigata, Japan; 3-5 September 2009, keynote speaker.
 International Association for Food Protection, Anaheim, CA, USA; 1-4 augustus 2010, invited speaker.
 Food Micro, Copenhagen, Denmark; 30 August-2 September 2010, keynote speaker.
 European Commission, DG Sanco. Second round table conference on revision of meat inspection. Future pig meat inspection. Brussels, 25 October 2010.
 Current public health problems related to pork, invited presentation.
 International Association for Food Protection, European Symposium, Ede, the Netherlands, 18-20 May 2011, keynote speaker.
 Safe Pork, Maastricht, the Netherlands, 19-22 June 2011, keynote speaker.
 Institute for Food Research, Norwich, UK, 21 July 2011, invited lecturer.
 16th International Workshop on Campylobacter, Helicobacter and related organisms, Vancouver, Canada; 3-5 September 2009, session starter talk.
 VITAL Conference "Advances in monitoring and control of viruses in food supply chains", Ljubljana, Slovenia, 5-7 September 2011, keynote speaker.
 EFSA/ECDC/EC DG Sanco seminar "Animal-to-human diseases: How does Europe protect its citizens?", European Parliament, Brussels, 10 October 2011, invited speaker.
 Wetenschappelijk Comité van het FAVV, Brussel, België, 25 November 2011, invited speaker.
 International Conference on Emerging Infectious Diseases, Atlanta, GA, 14 march 2012, oral presentation.
 European Veterinary College Voorjaarsdagen Amsterdam, 6 April 2012, invited speaker.
 International Association for Food Protection, Providence, RI, USA; 22-24 July 2012, invited speaker.
 European College for Veterinary Public Health, Maastricht, the Netherlands; 23 August 2012, keynote speaker.
 EFSA@10 Scientific Conference, Parma, Italy; 7-8 November 2012, keynote speaker.
 Seminar on Burden of Foodborne Diseases. DTU Food, Lyngby, Denmark; 19 February 2013, keynote speaker.
 2013 Campylobacter Strategy Workshop BBSRC/DEFRA/FSA, Birmingham, UK, 12-14 March 2013, invited international speaker.
 Global Health Metrics and Evaluation Conference, Seattle, WA, USA, 17-19 June 2013, oral presentation.
 International Association for Food Protection, Charlotte, NC, USA; 28-31 July 2013, invited speaker.
 CHRO 2013, Aberdeen, UK, 15-19 September 2013, plenary opening address.
 SfAM-MVNA Summer Conference, Brighton, 30 June-3 July 2014; invited speaker.
 International Association for Food Protection, Indianapolis, IN, USA; 3-6 August 2014; invited speaker.
 American Society for Tropical Medicine and Hygiene, New Orleans, LO, USA; November 1-4 2014; invited speaker.
 Florida Association for Food Protection Annual Educational Conference, Altamonte Springs, FL, May 29, 2015; invited speaker.
 Sri Lanka College of Microbiologists Annual Meeting, Colombo, Sri Lanka, August 12-14, 2015; invited speaker (2 presentations).
 EFSA's 2nd Scientific Conference "Shaping the Future of Food Safety, Together", Milan, Italy, October 14-16, 2015; invited speaker.
 18th International workshop on Campylobacter, Helicobacter and related organisms, Rotorua, New Zealand, November 2, 2015; invited speaker.
 The Global Burden of Foodborne Diseases - from data to action, Amsterdam, the Netherlands, December 15-16, 2015; chair scientific committee and speaker.
 The Global Burden of Foodborne Diseases. Bill and Melinda Gates Foundation, Seattle, WA, January 11, 2016.

The Global Burden of Foodborne Diseases, webinar. IAFP, February 9, 2016.
Global Burden of Disease: Foodborne Pathogens, The FERG Approach" May 26th, 2016, Wageningen, the Netherlands, invited speaker.
International Association for Food Protection, St. Louis, MO, USA; July 31 - August 3, 2016; session organizer and speaker.

TEACHING AT UNIVERSITY OF FLORIDA

Quantitative microbial risk assessment (3 credits). February 26 – March 4, 2016

PHD STUDENTS AT THE UNIVERSITY OF FLORIDA

Ongoing

Elizabeth Beshearse. Attribution of diseases to water and food, an expert elicitation.

MSC STUDENTS AT THE UNIVERSITY OF FLORIDA

Completed

Amanda Tiblier. Risk profile Salmonella on tomatoes.

Ongoing

Kathleen Vazquez: Modeling bacteriological quality of agricultural waters

PHD STUDENTS AT UTRECHT UNIVERSITY

Completed degrees

W. Hijnen, Elimination of micro-organisms in water treatment, 29 January 2009. Utrecht, the Netherlands.

F.M. Schets, The microbiological safety of bathing water – waterborne pathogens beyond bathing water legislation, 3 March 2011. Utrecht, the Netherlands.

J.H. Smid, Biotracing microbial contaminants of food chains, 5 June 2012. Utrecht, the Netherlands.

K. Verhaelen, Sources and persistence of human noroviruses in fresh produce chains and associated public health risks. 7 July 2014. Utrecht, the Netherlands.

J. van Leuken, Airborne transmission of *Coxiella burnetii*: Spatial dispersion modelling and the effects of meteorological and environmental conditions on Q fever incidence. 8 September 2015. Utrecht, the Netherlands.

E. Pacholewicz, Improving processing hygiene and broiler meat safety in the slaughterhouse in relation to *Campylobacter* spp. An intervention study. 24 May 2016. Utrecht, the Netherlands.

F. Franssen, Trichinella in wildlife in the Netherlands and evaluation of risk-based monitoring systems. 14 June 2016. Utrecht, the Netherlands.

Ongoing

L. Tariq, Changing paradigm toward better health policy decision making: future economic evaluations, cost-of-illness studies, and budget impact analyses (Utrecht)

C. Maertens de Noordhout, Towards an improved estimation of the burden of bacterial foodborne disease (Brussels)

Co-promotor

G.J. Medema, *Cryptosporidium* and *Giardia*: new challenges to the water industry, 29 July 1998. Utrecht, the Netherlands

P.H. in 't Veld, The development and evaluation of reference materials for food microbiology, 7 December 1998. Wageningen, the Netherlands

Evaluator

M.J. Beekwilder, Secondary structure of the RNA genome of bacteriophage Q β , 30-05-1996. Leiden, the Netherlands.

M. Muniesa, Bacteriophages carrying the Stx2 gene in water, 28-11-97. Barcelona, Spain

J.F. Schijven, Virus removal from groundwater by soil passage, 02-04-2001, Delft, the Netherlands.

G. Johnsen, *Campylobacter* in Norwegian poultry - molecular epidemiological aspects. 10-11-2006, Oslo, Norway.

B. Vossough Ahmadi, Cost effectiveness of *Escheria coli* O157:H7 control in the beef chain. 25-05-2007, Wageningen, the Netherlands.

S.A. Burt, Antibacterial activity of essential oils: potential applications in food. 29-11-2007. Utrecht, the Netherlands.

T.K.H. Ho, *Arcobacter*, what is known and unknown about a potential foodborne zoonotic agent. 22-01-2008. Utrecht, the Netherlands.

P.W.M.H. Smeets, Stochastic modelling of drinking water treatment in Quantitative Microbiological Risk Assessment. 15-04-2008, Delft, the Netherlands.

B. Bokkers, Extrapolation in human health hazard characterization: a probabilistic approach. 26-02-2009. Utrecht, the Netherlands.

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