

Curriculum Vitae

Nigel P. French

November 2008

Current position

Professor of Food Safety and Veterinary Public Health, Massey University.

Co-Director, EpiCentre, Massey University.

Head of Molecular Epidemiology and Veterinary Public Health Laboratory, Hopkirk Institute.

Honorary Appointments

Visiting Professor, Department of Veterinary Clinical Studies, University of Glasgow, UK.

Visiting Professor, Department of Veterinary Clinical Science, University of Liverpool, UK.

Education and qualifications

2003	DipECVPH	Diploma of the European College of Veterinary Public Health.
1998	DLSHTM	Diploma of the London School of Hygiene and Tropical Medicine, University of London, UK.
1993	PhD	University of Bristol, UK.
1993	MSc (Epidemiology)	London School of Hygiene and Tropical Medicine, University of London, UK.
1987	BVSc	Bachelor of Veterinary Science, University of Bristol, UK.
1987	MRCVS	Membership of the Royal College of Veterinary Surgeons.

Employment history

2003-2004	Professor of Veterinary Epidemiology, University of Liverpool, UK.
1999-2004	DEFRA Senior Research Fellow, Head of DEFRA Epidemiology Unit, University of Liverpool, UK.
1999-2002	Reader in Epidemiology, University of Liverpool, UK.
1996-1999	Lecturer in Veterinary Epidemiology, University of Liverpool, UK.
1995-1996	Lecturer in Farm Animal Health and Husbandry, University of Bristol, UK.
1992-1995	Wellcome Trust Research Training Fellow in Clinical Epidemiology. University of Bristol/London School of Hygiene and Tropical Medicine, UK.
1990-1992	Research assistant and PhD student, Department of Veterinary Medicine, University of Bristol, UK.
1987-1990	Veterinary practitioner, Derbyshire, UK.

Other appointments and professional activities

Ongoing

Honorary Research Fellow in Departments of Veterinary Clinical Science and Veterinary Pathology, University of Liverpool, UK.

Member of New Zealand Food Safety Authority Science Academy.

Member of European College of Veterinary Public Health.

Member of Royal College of Veterinary Surgeons.

Member of New Zealand Enteric Zoonoses Disease Research Steering Group.

Member of Institute of Veterinary Animal and Biomedical Sciences Executive Committee.

Member of Management team of the Veterinary Training and Research Initiative, University of Liverpool.

Previous appointments

- 2004-2005 Member of New Zealand Food Safety Authority Antimicrobial Resistance Expert Panel.
- 2003-2004 UK Surveillance RADAR Business Action Group.
- 2003 House of Lords Select Committee: Fighting Infection. Advisor to sub-committee on food borne pathogens.
- 2002-2004 Member of Royal College of Veterinary Surgeons Research Committee.
- 2002-2004 Food Standards Agency, Microbial Risk Assessment Advisory Group.
- 2001-2004 Food Safety and Zoonoses Project Management Group, Veterinary Laboratories Agency, External Member.
- 2001 Veterinary Laboratories Agency Science Audit - Food Safety Panel member.
- 2001 World Health Organisation, member of Microbial Risk Assessment group responsible for drawing up guidelines for exposure assessment.
- 2001-2004 Editorial Board, *Epidemiology and Infection*.

Research grants awarded

UK funding

Awarded over £11M from UK research funding bodies between 1998 and 2004. All were highly interdisciplinary research projects working at the interface between mathematical and biological sciences, and human and veterinary medicine. These included the following:

Department for Rural Affairs (DEFRA) funded: Project leader and PI for the research programme Food-borne zoonotic pathogens: Transmission, pathogen evolution and control'. This comprised two large scale programme grants, namely the 'DEFRA Fellowship' (£1.3M) and the 'Veterinary Training and Research Initiative' (ongoing £4.5M), and a number of related project grants (total additional value of DEFRA funding £840K).

Wellcome Trust: Infrastructure Grant (£4.3M, one of five PIs).

Higher Education Funding Council: Infrastructure Grant (£231K, PI).

BBSRC: Molecular epidemiology of *Cryptosporidium* (£90K, PI).

BBSRC: A new approach to tick-borne fever: Ecology and transmission. (£128K, one of three PIs)

Department for International Development (DFID): Optimising milk production in small holder dairy farms in Tanzania. (£345K, one of five PIs)

Equine Research Grants: Funding from a range of sources, including the Horserace Betting Levy Board and the Home of Rest for Horses, for projects on colic and racing injury either as PI or AI. (total funding £510K)

DEFRA: Control of digital dermatitis in cattle: understanding transmission and spread of disease. (£324K, one of three PIs)

DEFRA: The non chemical control of sheep scab: a systems modelling approach combining ecology, ethology and epidemiology (£235K, PI)

Other smaller grants awarded from DEFRA, DFID, Food Standards Agency, Veterinary Laboratories Agency, SEERAD, Milk Development Council and the Wellcome Trust (total value £390K).

New Zealand funding

Marsden Fund, Royal Society of New Zealand. Cows, starlings and *Campylobacter* in New Zealand: unifying phylogeny, genealogy and epidemiology to gain insight into pathogne evolution. 2009-2012. (total value \$740K)

New Zealand Food Safety Authority (NZFSA). The NZFSA have funded, through a series of project grants, a programme of research on the molecular epidemiology and control of *Campylobacter* 2005-2009. (total value \$720K).

Veterinary Laboratories Agency. Development of risk-based surveillance tools 2006-2009.(total value \$690K)

Foundation for Research Science and Technology. Improved Pathogen Control Technologies for Verocytotoxigenic *E. coli*. 2007-2012 (subcontract to ESR value \$1.06M)

Ministry of Health. Aquatic Protozoa Research Unit, molecular epidemiology and control of *Cryptosporidium* and *Giardia* in New Zealand water 2006-2009. (total value \$660K).

Foundation for Research Science and Technology, Cross Departmental Research Pool. In collaboration with NIWA, ESR and the NZFSA *Campylobacter* in food and the environment 2008-2010. (subcontract value \$240K)

Foundation for Research Science and Technology, Global Climate Change - HAIFA - Enhancing Human Health Resilience To Climate Variation And Change. 2008-2011. (subcontract to ESR value \$93K).

Health Research Council, The application of molecular epidemiology to campylobacteriosis in New Zealand 2008-2010. (subcontract to ESR value \$80K)

Other smaller grants awarded by Massey University and Industry (total value \$340K).

PhD supervision

Ongoing

Petra Mullner:	Source Attribution for campylobacteriosis in New Zealand, Massey University.
Vathsala Mohan:	Molecular epidemiology of <i>Campylobacter</i> spp. in New Zealand. Massey University.
Hamid Irshad:	Epidemiology of Verocytotoxigenic <i>Escherichia coli</i> in ruminants in New Zealand. Massey University.
Jackie Benschop:	Development of a surveillance system for salmonella in pigs. Massey University.
Dai Grove White:	Molecular epidemiology of <i>Campylobacter</i> in dairy and sheep in the United Kingdom.
Eve Pleydell:	Antimicrobial resistance in ruminants and pigs. Massey University.
Charlotte Bolwell:	Epidemiology of injuries in training in New Zealand racing thoroughbreds. Massey University.
Eric Neumann:	Social networks and disease transmission in the pig industry in New Zealand. Massey University.
Caryl Lockhart:	Epidemiology and surveillance of Avian Influenza in poultry.

Degrees awarded

2007 Simone Titus:	Relative risk assessment of <i>Salmonella</i> , <i>Listeria</i> and <i>Yersinia</i> in the pork production chain. Massey University.
2007 Emily Brook:	Molecular epidemiology of cryptosporidiosis in cattle. University of Liverpool.
2007 Debra Archer:	Studies of spasmodic colic in horses. University of Liverpool.
2007 Richard Kemp:	Cross sectional studies of the epidemiology and genetic diversity of <i>E. coli</i> and <i>Campylobacter</i> in dairy farmland. University of Liverpool.
2007 Daan Vink:	The epidemiology of Digital Dermatitis in dairy cattle. University of Liverpool.
2007 Gabriel Shirima:	Brucellosis in pastoralist and smallholder dairy farms in Tanzania. University of Glasgow.
2004 Susan Robinson:	Longitudinal studies of Verotoxigenic <i>E. coli</i> in cattle. University of Liverpool.
2004 Jane Murray:	An epidemiological study of the risk factors for horse-falls in the sport of Cross Country and Eventing. University of Liverpool.
2002 Gina Pinchbeck:	An epidemiological study of the risk factors for falling in National Hunt Racing. University of Liverpool.
2003 Timothy Parkin:	Risk factors for fatal distal limb fractures in racing Thoroughbreds. University of Liverpool.
2002 Catriona Bell:	Knowledge transfer and dissemination of information on mastitis in smallholder dairy farms in Tanzania. University of Glasgow.
2002 Mark Hillyer:	Epidemiological studies of abdominal disease of the horse. University of Bristol.
2002 Emmanuelle Swai:	Epidemiological studies of tick borne diseases in small scale dairy farming systems in Tanzania. University of Liverpool.
2002 Eson Karimuribo:	Epidemiological studies of mastitis in smallholder dairy farms in Tanzania. University of Glasgow.
2002 Helen McCarthy:	The Epidemiology of Equine Grass Sickness with particular reference to the role of <i>Clostridium botulinum</i> . University of Liverpool.
1997 Andrew Fenton:	Modelling the sheep blowfly: the development of deterministic and stochastic simulation models. University of Bristol.

Postdoctoral supervision

Dr Daan Vink, Veterinary Epidemiologist 2006-date

Dr Simon Spencer, Mathematician 2007-date

Dr Jonathan Marshall, Mathematician 2006-date

Dr Helen Clough, Statistician, 1999-2004

Dr Nicola Williams, Microbiologist, 1999-2004

Dr Howard Leatherbarrow, Molecular biologist, 2001-2004

Dr Joanne Turner, Mathematician, 2000-2004

Dr Yanni Xiao, Mathematician, 2003 - 2005

Dr Patrick Brown, Statistician, 2002-2004

Dr Eduardo Berriatua, Epidemiologist, 1996-1999

Dr Mark Hirst, Statistician, 1999-2001

Dr Abigail Casey, Molecular biologist. 2000-2002

Dr John Adams, Molecular biologist. 1998-2000

Invited presentations

Invited plenary or keynote presentations at international conferences and workshops, 2007-2008

European Food Safety Scientific Colloquium, Rome, Italy, December 2008: New molecular and modelling tools for food source attribution.

Conference on Research Developments in Food Science and Technology in Europe and New Zealand, Budapest, Hungary, September 2008: Risk-based tools for decision making in food safety and public health.

Seminar, University of Liverpool, UK, July 2008: Campylobacteriosis in New Zealand. Have we removed the pump handle?

European Consortium for Mathematics in Industry, University College London, July 2008: Models for the control of human food poisoning bacteria: on-farm and food chain interventions.

Australian Veterinary Association conference, Perth, May 2008: Three invited papers:

Antibacterial Resistance on Conventional and Organic Livestock Farms

Falling and racetrack injuries; using observational epidemiology to identify risk factors

The epidemiology of food-borne and environmental pathogens

Food Standards Agency UK, London, July 2008. Campylobacteriosis in New Zealand. Source attribution and decontamination trials.

VIIth Campylobacter, Helicobacter and Related Organisms (CHRO) conference, Rotterdam, Netherlands, September 2007. Plenary address: *Campylobacter* - diversity, host specificity and population biology.

Modelling of Campylobacter infections and exposure, Joint meeting of CamPEC-Net WP3 and Med-Vet-Net WP30 (Campynet III), Rotterdam, Netherlands, September 2007 : Immunity to *Campylobacter*: its role in risk assessment and epidemiology

Med-Vet-Net annual conference, Lucca, Italy, 27-30 June 2007. Keynote address: Molecular and modelling tools for the attribution of risk pathways for foodborne diseases.

Seminar, University of Liverpool, UK, July 2007: The campylobacteriosis epidemic in New Zealand.

Invited plenary or keynote presentations at national conferences and workshops, 2007-2008

The role played by molecular epidemiology in the sharp decline in human gastroenteritis in NZ. Hopkirk Institute seminar, August 2008

Source tracking *Campylobacter* in recreational waters using molecular tools, modelling and population genetics. National Institute of Water and Atmospheric Research, Hamilton, June 2008.

MultiLocus Sequence Typing. Analysis of microbial pathogens workshop, Kenepuru, June, 2008

Use of microarray, binary genotyping and *flaA* sequencing for molecular epidemiology of *Campylobacter jejuni*. Analysis of microbial pathogens workshop, Kenepuru, June, 2008

The origin of human campylobacteriosis in New Zealand. New Zealand Society for Medical Laboratory Scientists, NI seminar, May 2008.

Environmental transmission persistence and detection: Zoonotic Bacteria. Enteric Zoonoses Disease Research Group workshop, April, 2008

Campylobacter surveys using genotyping. New Zealand Food Safety Authority Workshop, Wellington, April, 2008

Recent advances in our understanding of the molecular epidemiology of *Campylobacter jejuni* in New Zealand. ESR Soapbox seminar, Kenepuru, Feb 2008

Using molecular tools and modelling to identify the source of food poisoning. Maths and Stats teachers workshop, Palmerston North, Oct 2007.

EpiBranch: Epidemiology of food and environmental zoonoses: a novel approach to modelling infection dynamics, immunity and dose response, March 2007.

Infection and Control Nurses conference, Te Papa, Wellington: The *Campylobacter* epidemic in New Zealand: have we turned the corner?, September 2007.

MAF-Massy meeting: Molecular Epidemiology. April 2007.

Australasian Veterinary Poultry Alliance Scientific Meeting: *Campylobacter*; Update on Epidemiology and Control in Animals and Man. May 2007.

S*Campylobacter*: Molecular epidemiology and source attribution in New Zealand. soapbox seminar, ESR, Kenepuru. February 2007.

Invited plenary or keynote presentations prior to 2007

Presented talks and seminars at the Universities of Oxford, Cambridge, Glasgow, Edinburgh, Reading, Warwick, Lancaster, Manchester and Sokoine (Tanzania), and have given keynote and plenary presentations at conferences in Italy, Chile, the Netherlands and Czech Republic. In 2003 invited to New Zealand by Massey University to give four seminars:

Microbial food and environmental safety: towards quantifying and reducing human exposure to enteric pathogens.

Disease dynamics in space and time: unravelling local and large scale patterns

Equine colic: exploring the role of epidemiology in evidence-based medicine and surgery

Epidemiology and control of sheep ectoparasites: modelling mange and myiasis

Presented to UK Cross Government Workshops and at an International Conference on Zoonoses: from Science to Policy 'Microbial Risk Assessment: Understanding the ecology and epidemiology of foodborne pathogens' in Cardiff, Wales.

Residential courses attended

2008 Institute of Directors, Company Directors course, 1 week course. Wellington.

2002 Modern Approaches to the Epidemiology and Control of Infectious Disease. 2 week course, University of Oxford

Training

Course co-ordinator for the undergraduate Veterinary Public Health course and the Masters in Veterinary Public Health programme at Massey University.