

Rowland Cobbold - Curriculum Vitae

CURRENT U.S. POSITION

Title: Adjunct Professor – field epidemiology
Department: Field Disease Investigation Unit (FDIU)
Department of Veterinary Clinical Sciences
Institution: College of Veterinary Medicine
Washington State University
Pullman, WA., 99164-6610.
Email: cobbold@vetmed.wsu.edu

EDUCATION

PhD (Microbiology) April 2002.
University of Queensland (Australia)
Department of Microbiology and Parasitology.

BVSc (Hons 1) November 1991.
University of Queensland (Australia)
School of Veterinary Medicine.

HONORS AND AWARDS

First Class Honors (Summa cum laude): Bachelor of Veterinary Science, 1991.
University of Queensland Postgraduate Research Scholarship, 1997-2001.

PROFESSIONAL POSITIONS

Assistant Lecturer: Veterinary Public Health
School of Veterinary Science
University of Queensland
Brisbane, Australia

ABN 63 942 912 684
June 2005 to present.

Adjunct Professor: Field epidemiology and microbiology

Field Disease Investigation Unit, Dept. of Veterinary Clinical Sciences,
Washington State University.
June 2005 to present.

Assistant Professor: Field epidemiology and microbiology.

Field Disease Investigation Unit, Dept. of Veterinary Clinical Sciences,
Washington State University.
Apr 2001 – June 2005.

Medical Microbiology Teaching Assistant.

Dept. of Microbiology and Parasitology, University of Queensland, Australia.
Feb 1998 – Apr 2001.

Infectious Disease and Immunology Teaching Assistant.

Dept. of Microbiology and Parasitology, University of Queensland, Australia.
Jul 2000 – Apr 2001.

Locum Veterinary Surgeon.

Belmont Road Veterinary Surgery / Cannon Hill Veterinary Surgery, Brisbane,
Queensland, Australia.
Nov 2000 – Mar 2001.

Locum Veterinary Surgeon.

Silkstone Veterinary Hospital / Moreton Veterinary Hospital, Ipswich,
Queensland, Australia 4304.
Dec 1996 – Dec 2000.

Veterinary Surgeon.

Caboolture District Animal Hospital, Caboolture, Queensland, Australia.
Mar 1996 – Dec 1996.

Locum Veterinary Surgeon.

- Rochford Veterinary Surgery, Rochford, Essex, United Kingdom.
- South Downs Veterinary Services, Pulborough, East Sussex, UK.
- Newquay Veterinary Hospital, Newquay, Cornwall, UK.
- Ipswich Veterinary Clinic, Ipswich, Suffolk, UK.

Mar 1994 – Mar 1996.

Veterinary Surgeon.

Caboolture District Animal Hospital, Caboolture, Queensland, Australia.
Mar 1992 – Mar 1994.

PROFESSIONAL MEMBERSHIPS

Australian Veterinary Association (AVA)

AVA Australian Veterinarians in Public Health S.I.G.

American Society for Microbiology (ASM)

Washington State Veterinary Medical Association (WSVMA)

WSVMA Public Health Committee

Conference of Research Workers in Animal Disease (CRWAD)

FUNDED PROJECTS

FY2001 Intramural Research Project (sponsored by the Adler Endowment and Animal Health Formula Fund). 07/01 – 06/02. “ The prevalence and virulence of Shiga-toxigenic *Escherichia coli* isolated from dairy, feedlot and range cattle in the Pacific Northwest.” \$19,982. Principal investigator.

FY2003 Intramural Research Project. 07/02 – 06/03. “Investigation of the relationship between Shiga-toxigenic *E. coli* isolated from cattle and from cattle-derived foods in Washington State”. \$19,979. Principal investigator.

FY2003 Intramural Research Project. 07/03 – 06/04. “Investigation of associations between bovine host immunological parameters and susceptibility to intestinal colonization by *E. coli* O157:H7” \$19,985. Principal investigator.

National Cattlemen’s Beef Association Foodborne Pathogen Science Award 2003 . 05/03 – 04/05. “The role of recto-anal junction *E. coli* O157:H7 intestinal colonization in influencing feedlot cattle *E. coli* O157:H7 dynamics.” \$149,909. Principal investigator.

National Institutes of Health National Institute of Allergic and Infectious Disease; Food and Waterborne Integrated Research Network. 10/03 – 09/10. “Regional Dissemination of Food and Water-borne Zoonotic Enteropathogens in the Pacific Northwest”. \$9,926,693. Co-investigator.

United States Department of Agriculture National Research Initiative Food Safety Research and Response Network. 01/2005 – 12/2012; \$148,000, annually renewed. Co-investigator.

PUBLICATIONS

Peer reviewed journal articles:

Cobbold, R. N. and Desmarchelier, P. 2000. A longitudinal study of Shiga-toxigenic *Escherichia coli* (STEC) prevalence in three Australian dairy herds. *Veterinary Microbiology*. 71:125-137.

Cobbold, R. N. and Desmarchelier, P. 2001. Characterisation and clonal relationships of Shiga-toxigenic *Escherichia coli* (STEC) isolated from Australian dairy cattle. *Veterinary Microbiology*. 79: 323-335.

Cobbold, R. N. and Desmarchelier, P. 2002. Horizontal transmission of Shiga toxin-producing *Escherichia coli* (STEC) within groups of dairy calves. *Applied and Environmental Microbiology*. 68 (8): 4148-4152.

Cobbold, R. N. 2002. The Epidemiology of Shiga Toxin-producing *Escherichia coli* in Australian Dairy Cattle. Thesis – University of Queensland.
<http://adt.library.uq.edu.au/public/adt-QU20031118.103930/>

Cobbold, R. N. and Desmarchelier, P. 2003. *In vitro* studies on the colonization of bovine colonic mucosa by Shiga-toxigenic *Escherichia coli* (STEC). *Epidemiology and Infection*. 132: 87-94.

DeFrancesco, K.A.; **Cobbold, R.N.**; Rice, D.H.; Besser, T.E.; Hancock, D.D.. 2004. Antimicrobial Resistance of Commensal *Escherichia coli* from Dairy Cattle Associated With Recent Salmonellosis Outbreaks. *Veterinary Microbiology*. 98 (1): 55-61.

Cobbold, R.N.; Rice, D.H.; Szymanski, M.; Call, D. R.; Hancock, D.D.. 2004. Comparison of Shiga-toxigenic *Escherichia coli* (STEC) prevalence between dairy, feedlot and cow-calf herds in Washington State. *Applied and Environmental Microbiology*. 70 (7): 4375-4378.

Published Abstracts:

Cobbold, R. N. and Desmarchelier, P. (1998). "Shiga toxin-producing *Escherichia coli* on the Australian dairy farm." Australian Society for Microbiology Annual Scientific Meeting and Exhibition 1998 symposium, Hobart, Tasmania, Australia.

Cobbold, R. N. and Desmarchelier, P. (1999). "Shiga-toxigenic *Escherichia coli* (STEC) on the Australian dairy farm." Australian Veterinary Association Annual Conference 1999, Hobart, Tasmania, Australia.

Cobbold, R. N. and Desmarchelier, P. (2000). "Adhesion studies of Shiga-toxigenic *Escherichia coli* to bovine colonic mucosa." Australian Society for Microbiology Annual Scientific Meeting and Exhibition 2000, Cairns, Queensland, Australia.

Cobbold, R.N.; Hancock D.D.; Rice D.H.; Szymanski, M. "Non-O157 Shiga-toxigenic *E. coli* isolated from cattle in Washington State." VTEC 2003; 5th International Symposium on 'Shiga Toxin (Verocytotoxin) – Producing *Escherichia coli* Infections meeting, Edinburgh, U.K.

Mishra, B.; Koltjes, J.; Totir, L.; Fernando, R.; Cavanagh, J.; Georges, M.; Coppieters, W.; **Cobbold, R.**; Aboellail, T.; Steffen, D.; Reecy, J. "Mapping of the gene causing disproportionate dwarfism in American Angus Cattle." International Society of Animal Genetics. September 11-16, 2004. Surugadai Campus, Meji University, Tokyo, Japan.

Cobbold, R.N.; Berg, J.; Rice, D. H.; Stilborn, R.; Carstens, J.; Besser, T.E.; Hancock, D. D. (2004). Dynamics of recto-anal junction colonization and associated fecal shedding of *Escherichia coli* O157:H7 in feedlot cattle. Conference of Research Workers in Animal Disease Annual Meeting. Nov 14-16th, 2004. Chicago, USA.

Other Publications:

Cobbold, R.N. Lack of veterinary practitioners in rural areas. Aust Vet J. 2002 Jan-Feb;80(1-2):24.

"Campylobacter in the Pork Food Chain". Extension fact sheet for The Ohio State University and National Pork Board.

Presentations:

Pacific Northwest Food Safety Farm to Table Conference 2002. "STEC – More Than Just *E. coli* O157:H7". Moscow ID. 05/29/02. (And organizing committee member).

County Extension Agents meeting – WSU All Extension Conference. 10/16/02. Pullman. "Update on current FDIU activities".

Pacific Northwest Food Safety Farm to Table Conference 2003. "Control of Noroviruses – are we all at sea?". Moscow ID. 05/28/03. (And organizing committee member and session chair).

County livestock extension agents' meeting. "Current and proposed FDIU food safety activities". Spokane, WA. 4/15/03.

WA State Beef Commission Board Meeting invited speaker. "The role of recto-anal junction *E. coli* O157:H7 intestinal colonization in influencing feedlot cattle *E. coli* O157:H7 dynamics." Leavenworth, WA. 8/11/03.

Pacific Northwest Food Safety Farm to Table Conference 2004. "Avian Influenza – a Food Safety Threat?". Moscow ID. 05/26/02-05/27/04. (And organizing committee member and session chair).

American Meat Science Association 57th Reciprocal Meat Conference. University of Kentucky, Lexington KT. June 20th-23rd. "The prevalence of *E. coli* O157:H7 in the environment".

Washington Cattleman's Association General Meeting, Pasco, WA. Nov 12th. "The Role of Super-shedders in the Epidemiology of *E. coli* O157:H7 in Feedlot Cattle".

PROFESSIONAL / ACADEMIC SERVICE

Editorships:

United States Dept. Agriculture National Research Initiative Epidemiological Approaches to Food Safety Program

United States Dept. Agriculture National Research Initiative Small Business Innovation Program

Veterinary Microbiology (Elsevier Press).

Journal of Food Protection (International Association for Food Protection).

Applied and Environmental Microbiology (American Society for Microbiology).

Wellcome Trust Application for Biomedical Research Support under the Animal Health in the Developing World Initiative.

Committee membership:

WSU CVM Animal Resource Committee: Supervision of animals and related facilities used for research and teaching.

WSU CVM Faculty Search Committees:

Dept. Veterinary Microbiology and Pathology: Microbial genomicist

Dept. Veterinary Clinical Sciences (ad hoc): Dairy production veterinarians
– two positions; nutritionist and theriogenologist.

Dept. Veterinary Clinical Sciences: FDIU Laboratory Manager.

Dept. Veterinary Clinical Sciences: Fiscal Specialist.

TEACHING

WSU classes taught:

VM 508P. Research Orientation. Explanation of research directions and topics in food safety, zoonoses and population medicine. 1st and 2nd year DVM students.

FSHN 501. Topics in Food Safety: Pathogens. "Noroviruses". Graduate class. Broadcast and recorded on the WebCT system to Ohio State and Colorado State Universities.

VM 631P. Population medicine. Assistance with clinical rotations – farm visits, outbreak investigations. 4th year DVM students.

VM 600P. Senior paper. Discussant and advisor to students preparing scientific papers and presentation.

VM 610P. Proctor for Clinical Proficiency Examinations.

VMic 535. Advanced Readings in Veterinary Diagnostic Microbiology. Graduate course on select topics of relevance to current graduate students within the program.

VM 501P. International Veterinary Medicine. DVM program elective course.

University of Queensland classes taught:

Graduate Medical Course. Medical Microbiology Instructor.

Topics for instruction included:

- Basic microbiological techniques and aseptic handling of materials including use of the microscope and sample staining
- Basis of infectious processes; host-parasite interactions, ubiquity of micro-organisms, infectious disease control
- Sample collection and diagnostic microbiology, including enrichment and plating techniques, basic molecular and immunological techniques.
- Specific disease investigations eg. respiratory, gastrointestinal, urinary, etc pathogens
- Antimicrobials; mechanisms of action, resistance testing, therapeutics.

BIOL 2012. Instructor for second year microbiology majors.

Topics for instruction essentially similar to those of the Graduate Medical Course

with the inclusion of further instruction in immunological and sero-diagnostic techniques.

Graduate Student Supervision:

Bijay Adhikari. 08/03 - current. PhD. The epidemiology of *Campylobacter jejuni* on dairy farms and their transmission to and from humans.

Sonja Lloyd. 08/03 - current. Masters. The molecular epidemiology of enterohemorrhagic *E. coli* plasmids in relation to serotype and host specificity.