

UNIVERSITY OF PRETORIA
CURRICULUM VITAE

EVALUATION DATE: *(Office use only)*

1. BIOGRAPHICAL SKETCH

1.1 GENERAL INFORMATION

Surname	Abernethy									
First names	Darrell Andrew			ID Number	Passport: 518348211					
Citizenship	British			Title	Prof	Female	<input type="checkbox"/>	Male	<input checked="" type="checkbox"/>	
Place of birth	Kitwe, Zambia			Date of birth	02/05/1962					
Population group	African	<input type="checkbox"/>	Coloured	<input type="checkbox"/>	Indian	<input type="checkbox"/>	White	<input checked="" type="checkbox"/>	Other (Please specify)	
Department	Centre for Veterinary Wildlife Studies, Faculty of Veterinary Science			Position	Associate Professor					
Direct Telephone	072 215 8960			Direct Telefax	(012) 529 8212					
E-mail	darrell.abernethy@up.ac.za									
Date of appointment	02/05/2012			Permanent full-time	<input checked="" type="checkbox"/>	Temporary full-time	<input type="checkbox"/>			

1.2 ACADEMIC QUALIFICATIONS OBTAINED

Degree/ Diploma	Field of study	Higher education institution	Year
BVSc	Veterinary Science	University of Pretoria	1985
MSSc	Social Science (Organisation & Manpower)	Queens University, UK	1990
DipLSHTM	Epidemiology	University of London, UK	2002
PhD	Epidemiology	University of London, UK	2008

1.3 WORK EXPERIENCE TO DATE

Name of employer	Capacity and/or type of work	Period
University of Pretoria, South Africa	Academic, Centre for Veterinary Wildlife Studies	Aug 2017 - present
University of Pretoria, South Africa	Dean, Faculty of Vet Science	Aug 2014 to July 2017

University of Pretoria, South Africa	Associate Professor and Head of Department, Vet Tropical Diseases.	May 2012 to July 2014
Department of Agriculture, Northern Ireland, UK	1995 to 2003: Epidemiologist 2003 to April 2012: Head of Veterinary Epidemiology Unit	Jan 1995 to April 2012
Ministry of Agriculture, Botswana	Veterinary Officer (public health)	June 1991 to Dec 1994
Department of Agriculture, Northern Ireland, UK	Veterinary Officer (animal & public health)	May 1986 to June 1991

2. TEACHING ACTIVITIES

2.1 Courses presented

Course	Level (e.g. second year, Masters)	Self developed (Yes or No)
AHE809	Masters: Module in the MSc (Animal, Human, Ecosystem Health)	Yes
WLS812	Masters: Module in the MSc (Wildlife Health, Ecology and Management)	Yes
WLS810 (Epi & One Health)	Masters: Epidemiology and One Health sections in MSc (Wildlife Health, Ecology and Management)	Yes
VLP702 (Epi)	PG Diploma: Risk Assessment and Economic Appraisal in the PG Diploma (Veterinary Legislation & Policy)	Yes
IVD 300 (Research)	Undergraduate: Research section of BVSc III course (Introduction to Vet Diagnostics)	Yes
VPL	Undergraduate; lectures across all years on research;	No

5 RESEARCH ACTIVITIES

h-index (Google Scholar): 13

i10-index (Google Scholar): 15

5.1 Former supervision or co-supervision (completed)

Name of student	Degree/Date/Title of dissertation/thesis	Supervisor	Co-supervisor(s)
Dr P. Bastiansen	MSc (Animal, Human Ecosystem Health); 2017 <i>The use of formal Risk Analysis in Africa: extent, compliance with OIE guidelines and case studies</i>	E. Etter	D. Abernethy
Dr D. Verwoerd	MSc (Animal, Human Ecosystem Health); 2018 <i>Risk factors for bovine cysticercosis in a large commercial South African cattle feedlot.</i>	D. Abernethy	P. Dorny
Dr V. Henwood	MSc (Animal, Human Ecosystem Health); 2018 A qualitative risk assessment of <i>Salmonella enteritidis</i> in the broiler production chain in the Western Cape, South Africa	E. Etter	D. Abernethy
Dr T. Makwavarara	MSc (Animal, Human Ecosystem Health); 2018 <i>Use of a modified hazard analysis and critical control points (HACCP) approach for the evaluation of bovine brucellosis control programmes</i>	D. Abernethy	
Dr. D. Mpofu	MSc (Animal, Human Ecosystem Health); 2018	D. Abernethy	

	<i>A cross-sectional study of brucellosis-related characteristics of smallholder cattle herds in Gauteng Province</i>		
Dr. T. Nogwebela	MSc (Animal, Human Ecosystem Health); 2018 <i>A case control study of risk factors for bovine brucellosis in KwaZulu-Natal, South Africa</i>	D. Abernethy	
G. Sandengu	MSc (Animal, Human Ecosystem Health); 2018 <i>A case control study of herd level risk factors for bovine brucellosis in the Eastern Cape Province, South Africa</i>	D. Abernethy	

5.2 Current students

Name of student	Degree enrolled for and date of first registration	Project title	Supervisor	Co-supervisor(s)
B. Glover	PhD; 2016	Seroprevalence & characterization of <i>Brucella melitensis</i> in South Africa	H. van Heerden	D. Abernethy
M. Mapatse	Phd: 2016	Epidemiology of rabies in the Limpopo National Park, Mozambique	C. Sabete	D. Abernethy
L. Roberts	PhD: 2019	Avian Influenza: Epidemiology and contingency	D. Abernethy	C. Abolnik
T. Lewis	MSc: 2019	Assessment of African penguin health (TBC)	D. Abernethy	R. Burroughs
A.Snyman	MSc: 2019	Use of rehabilitation centre as sentinel for selected diseases of seabirds (TBC).	D. Abernethy	E. Mitchell

5.3 Obtaining research funds (Optional)

Origin of research funds (e.g. contract research, THRIP, international funding organisations, other(s))	Title of research project or programme	Duration	Money allocated (R) (Optional - exact amounts not required)
Faculty of Vet Science, University of Pretoria: Wildlife Theme Funds	Addressing the 2018/2019 avian flu epidemic in African penguins.	2019 - present	R50 000
Aviornis, Netherlands	Workshop to Develop a Comprehensive Assessment of African Penguin Colony Health:	October 2018	R7 500
Belgian Development Cooperation (through Institute of Tropical Medicine, Antwerp)	Building capacity for animal and human health in South Africa and the African continent through multi-disciplinary research, teaching and networking	2014-2016 (Follow-up grant to previous calls)	R15million
Gauteng Department of Agriculture	Controlling bovine brucellosis in Gauteng Province: A scoping study to collect essential data on non-commercial cattle herds.	2014-2015	R250 000
Animal and Zoonotic Diseases IRT	The prevalence and impact of <i>Brucella abortus</i> in personnel on cattle farms infected with brucellosis: Pilot study	2014-2015	R85 000

RESEARCH OUTPUTS

6.1 Publications in peer-reviewed or refereed journals

(i) Peer-Reviewed

- Downs S.H., More S.J., Goodchild A.V., Whelan A.O., **Abernethy D.A.**, Broughan J.M., Cameron A., Cook,

- A.J., de la Rua-Domenech R., Greiner M., Gunn J., Nunez-Garcia J., Rhodes S., Rolfe S., Sharp M., Upton P.A., Vordermeier H. M., Watson E., Welsh M., Woolliams J.A., Clifton-Hadley R.S. and Parry J.E. Evaluation of the methodological quality of studies of the performance of diagnostic tests for bovine tuberculosis in cattle, using QUADAS adapted for the veterinary field. (2018). *Preventive Veterinary Medicine*. Volume 153, 108-116
2. Nunez-Garcia J., Downs S.H., Parry J.E., **Abernethy D.A.**, Broughan J.M., Cameron A.R., Cook A.J., de la Rua-Domenech R., Goodchild A.V., Gunn J., More S.J., Rhodes S., Rolfe S., Sharp M., Upton P.A., Vordermeier H.M., Watson E., Welsh M., Whelan A.O., Woolliams J.A., Clifton-Hadley R.S., Greiner M. (2018). Meta-analysis of the sensitivity and specificity of ante and post-mortem diagnostic tests for bovine tuberculosis in the UK and Ireland. *Preventive Veterinary Medicine*. Volume 153, Pages 94-107
 3. Downs S.H., Parry J.E., Upton P.A., Broughan J.M., Goodchild A.V., Nunez-Garcia J., Greiner M., **Abernethy D.A.**, Cameron A.R., Cook, A.J., de la Rua-Domenech R., Gunn J., Pritchard, E., Rhodes S., Rolfe S., Sharp M., Vordermeier H. M., Watson E., Welsh M., Whelan A.O., Woolliams J.A., More S.J., Clifton-Hadley R.S. (2018). Methodology and preliminary results of a systematic literature review of ante-mortem and post-mortem diagnostic tests for bovine tuberculosis (2018). *Preventive Veterinary Medicine*. Volume 153, Pages 117-126.
 4. Courcier, E.A., Menzies, F.D., Strain, S.A.J., Skuce, R.A., Robinson P.A, Patterson, T., McBride, K.R., McCormick, C.M., Walton, E., McDowell, S.W.J. and **Abernethy, D.A.** (2018). *Mycobacterium bovis* surveillance in Eurasian badgers (*Meles meles*) killed by vehicles in Northern Ireland between 1998 and 2011. *Veterinary Record*. 182. 259
 5. Bastiaensen P., **Abernethy D.A.** and Etter E. (2017). Assessing the extent and use of risk analysis methodologies in Africa, using data derived from the Performance of Veterinary Services (PVS) Pathway. *Rev. Sci. Tech. Off. Int. Epiz.*, 2017, 36 (1).
 6. Madeira S., Manteigas A., Ribeiro R., Otte J., Fonseca P., Caetano1 P., **Abernethy D.** & Boinas F. (2017). Factors that influence *Mycobacterium bovis* infection in red deer and wild boar in an epidemiological risk area for tuberculosis of game species in Portugal. *Transboundary and Emerging Diseases*. 64(3):793-804
 7. Chipangura J.K., Eagar H., Kgoete M., **Abernethy D.** & Naidoo V. (2016). An investigation of antimicrobial usage patterns by small animal veterinarians in South Africa. *Preventive Veterinary Medicine*. 136. 29 – 38.
 8. Campe A., **Abernethy D.A.**, Menzies F.D. & Greiner M. (2016). Latent-class regression models for simultaneously estimating test accuracy, true prevalence and risk factors for *Brucella abortus*. *Epidemiology and Infection*. 144 (9):1845-56. Doi: 10.1017/S0950268816000157.
 9. O'Hagan, M.J.H., Courcier, E.A, Drewe, J.A, Gordon, A.W., McNair, J. & **Abernethy, D.A.** (2015). Risk factors for visible lesions or positive laboratory tests in bovine tuberculosis reactor cattle in Northern Ireland. *Preventive Veterinary Medicine* 120, 283–290
 10. Caetano M., Afonso F., Ribeiro R., Pina Fonseca P., **Abernethy D.** & Boinas F. (2014). Control of bovine brucellosis from persistently infected holdings using RB51 vaccination with test-and-slaughter: a comparative case report from a high incidence area in Portugal. *Transboundary and Emerging Diseases*, doi:10.1111/tbed.12228.
 11. Doyle L.P., Gordon L.P., **Abernethy D.A.** & Stevens K. Bovine tuberculosis in Northern Ireland: Risk factors associated with time from post-outbreak test to subsequent herd breakdown. *Preventive Veterinary Medicine*. 116 (2014) 47–55.
 12. **Abernethy D.A.**, Upton P., Higgins I.M., McGrath G., Goodchild A.V., Rolfe S.J., Broughan J.M., Downs S.H., Clifton-Hadley R., Menzies F.D., de la Rua-Domenech R., Blissitt M.J., Duignan A. & More S.J. (2013).

Bovine tuberculosis trends in the UK and the Republic of Ireland, 1995–2010 *Veterinary Record*. doi: 10.1136/vr.100969.

13. **Abernethy D.A.**, Menzies F.D., McCullough S.J., McDowell S.W.J., Watt R., Ellis W.A., Gordon A., Greiner M. and Pfeiffer D.U. (2012). Field trial of six serological tests for bovine brucellosis. *The Veterinary Journal* 191 (2012) 364–370.
14. Menzies F.D., **Abernethy D.A.**, Stringer L.A., Honhold N. & Gordon A.W. (2012). A matched cohort study investigating the risk of *Mycobacterium bovis* infection in the progeny of infected cows. *The Veterinary Journal* 194, 299–302
15. Robinson P.A., Corner L.A.L, Courcier E.A., McNair J., Artois M., Menzies F.D. & **Abernethy D.A.** (2012). BCG vaccination against tuberculosis in European badgers (*Meles meles*): A review. *Comparative Immunology, Microbiology and Infectious Diseases* 35, 277– 287.
16. **Abernethy D.A.**, Moscard-Costello J., Dickson E., Harwood R., Burns K., McKillop E., McDowell S. & Pfeiffer D.U. (2011). Epidemiology and Serological Management of a Bovine Brucellosis Cluster in Northern Ireland. *Preventative Veterinary Medicine* 98, 223-229.
17. Menzies F.D., **Abernethy D.A.**, Stringer, L.A. & Jordan, C. (2011). A comparison of badger activity in two areas of Northern Ireland. *Veterinary Microbiology* 151, 112–119.
18. McGrath G., **Abernethy D.**, Stringer L. and More S.J. (2009). An all-island approach to mapping bovine tuberculosis in Ireland. *Irish Veterinary Journal*. Vol. 62 No. 3 192-197.
19. Zimmer I.A., Fee S.A., Spratt-Davison S., Hunter S.J., Boughtflower V.D., Morgan C.P., Hunt K.R., Smith G.C., **Abernethy D.**, Howell M. & Taylor M.A. (2009). Report of *Trichinella spiralis* in a red fox (*Vulpes vulpes*) in Northern Ireland. *Veterinary Parasitology* 159, 300–303.
20. Stringer, L.A., Guitian, F.J., **Abernethy, D.A.**, Honhold, N.H. and Menzies, F.D. (2008). Risk associated with animals moved from herds infected with brucellosis in Northern Ireland. *Preventive Veterinary Medicine*, 84:72-84.
21. **Abernethy DA**; Denny GO; Menzies FD; McGuckian P; Honhold N; Roberts AR. (2006). The Northern Ireland programme for the control and eradication of *Mycobacterium bovis*. *Veterinary Microbiology* 112 (2-4), 231-237
22. **Abernethy DA**; Pfeiffer DU; Watt R; Denny GO; McCullough S; McDowell SW. (2000). Epidemiology of bovine brucellosis in Northern Ireland between 1990 and 2000. *Veterinary Record*; 158:717-721
23. Graham, D.A., German, A., Abernethy, D., McCullough, S., Manvell, R.J., Alexander, D.J. (1999). Veterinary Isolation of ortho- and paramyxoviruses from wild birds in Northern Ireland during the 1997 Newcastle disease epizootic *Veterinary Record* 145 pp 20-21
24. Ryan P.G. & **Abernethy D.A.** (1981). The White-rumped Sandpiper in southern Africa. Short Note. *Ostrich* 52:225.

6.6 Technical reports

External publication was not possible in the Department of Agriculture, Northern Ireland, until 2008; consequently, outputs were in the form of government technical reports. Copies of these reports can be provided subject to permission from the Department:

1. **Abernethy D.** (2011) Project Report: Badger Road Traffic Accident Survey. June 2011. Department of Agriculture and Rural Development, Northern Ireland, UK. October 2010. Unpublished government report.
2. Anon. (2011) SANCO/10114/2011. Report On The Task Force Meeting Of The “Bovine Brucellosis” Sub-Group, Santander, Spain, 27 – 28 October 2010 European Commission Directorate General for Health and Consumer Protection. http://ec.europa.eu/food/animal/diseases/eradication/bb_report_oct2010_spain.pdf
3. Anon. (2011) SANCO/10114/2011. Report On The Task Force Meeting Of The “Bovine Brucellosis” Sub-Group, Santander, Spain, 27 – 28 October 2010. http://ec.europa.eu/food/animal/diseases/eradication/bb_report_oct2010_spain.pdf
4. **Abernethy D.** (2010) Risk-Surfaces for Bovine Tuberculosis in N. Ireland: Preliminary Report. Department of Agriculture and Rural Development, Northern Ireland, UK. October 2010. Unpublished government report.
5. **Abernethy D.** (2010) Bovine Tuberculosis: Enhancing the Badger Road Traffic Accident (RTA) Survey: An Evaluation. August 2010. Department of Agriculture and Rural Development, Northern Ireland, UK. Unpublished government report.
6. **Abernethy D.** (2010) Bovine Tuberculosis: evaluation of a proposed “test-bed” intervention in Northern Ireland. August 2010. Department of Agriculture and Rural Development, Northern Ireland, UK. Unpublished government report.
7. **Abernethy D.** and White D. (2010) Association between Suspected Illegal Movements and Positive Brucellosis Cases. June 2010. Department of Agriculture and Rural Development, Northern Ireland, UK. Unpublished government report.
8. **Abernethy D.** (2010) Enhancing the Badger Road Traffic Accident (RTA) Survey: An evaluation. April 2010. Department of Agriculture and Rural Development, Northern Ireland, UK. Unpublished government report.
9. Anon. SANCO/10259/2010. Report On The Task Force Meeting Of The “Bovine Brucellosis” Sub-Group, Meeting held in Nicosia, Cyprus, 02- 03 December 2009. http://ec.europa.eu/food/animal/diseases/eradication/bb_report_cyprus_en.pdf
10. **Abernethy D.** (2009) Bovine Tuberculosis: Epidemiological Overview, 1995 to 2008. December 2009. Department of Agriculture and Rural Development, Northern Ireland, UK. Unpublished government report.
11. **Abernethy D.** & Gordon G. (2009) TB Testing in N. Ireland: Comparison of test results for different groups of veterinary surgeons. March 2009. Department of Agriculture and Rural Development, Northern Ireland, UK. Unpublished government report.
12. **Abernethy D.** (2009) Brucellosis Investigation Reports: Analysis of Data Captured on the BR Database. February 2009. Department of Agriculture and Rural Development, Northern Ireland, UK. Unpublished government report.
13. **Abernethy D.** (2008) Further investigation of the Indirect ELISA test in the Brucellosis Programme. September 2008. Department of Agriculture and Rural Development, Northern Ireland, UK. Unpublished government report.

14. Anon. (2009) SANCO/10259/2010. Report On The Task Force Meeting Of The “Bovine Brucellosis” Sub-Group, Meeting held in Nicosia, Cyprus, 02- 03 December 2009. European Commission Directorate General for Health and Consumer Protection.
http://ec.europa.eu/food/animal/diseases/eradication/bb_report_cyprus_en.pdf
15. Anon. (2009) SANCO/6095/2009. Working Document on Eradication of Bovine, Sheep and Goats Brucellosis in the EU accepted by the “Bovine” and “Sheep and Goats” Brucellosis subgroups of the Task Force on monitoring animal disease eradication. European Commission Directorate General for Health and Consumer Protection.
http://ec.europa.eu/food/animal/diseases/eradication/eradication_bovine_sheep_goats_brucellosis_en.pdf
16. **Abernethy D.** (2008). Towards a TB Eradication Strategy in N. Ireland: Ideas Paper. May 2008. Department of Agriculture and Rural Development, Northern Ireland, UK. Unpublished government report.
17. **Abernethy D.** (2008). Bovine Tuberculosis Test Results for Veterinary Surgeons in N. Ireland: Preliminary Analysis. May 2008. Department of Agriculture and Rural Development, Northern Ireland, UK. Unpublished government report.
18. **Abernethy D.** (2008). Culling Badgers to Reduce Bovine Tuberculosis in N. Ireland: Discussion Paper. January 2008. Department of Agriculture and Rural Development, Northern Ireland, UK. Unpublished government report.
19. **Abernethy D.** (2008). Preliminary Assessment of Skin Responses/Test Results using Weybridge/Lelystad Tuberculin. January 2008. Department of Agriculture and Rural Development, Northern Ireland, UK. Unpublished government report.
20. **Abernethy D.** (2008). Role of the Badger in Bovine Tuberculosis: Update. January 2008. Department of Agriculture and Rural Development, Northern Ireland, UK. Unpublished government report.
21. **Abernethy D.** (2007). Impact of Programme Expenditure on the Eradication of Bovine Brucellosis. December 2007. Department of Agriculture and Rural Development, Northern Ireland, UK. Unpublished government report.
22. **Abernethy D.** (2007). Epidemiological Evaluation of Parallel Testing for Brucellosis in Armagh Division. November 2007. Department of Agriculture and Rural Development, Northern Ireland, UK. Unpublished government report.
23. **Abernethy D.** (2007). Foot and Mouth Disease in Great Britain: Inspection of Livestock Imported to Northern Ireland 01 July to 03 August 2007. August 2007. Department of Agriculture and Rural Development, Northern Ireland, UK. Unpublished government report.
24. **Abernethy D.** (2007). Bovine Brucellosis: Epidemiological Assessment of Post-Abortion Serological Testing. June 2007. Department of Agriculture and Rural Development, Northern Ireland, UK. Unpublished government report.
25. **Abernethy D.** (2007). Bovine Brucellosis: Epidemiological Assessment of Low CFT Reactors. March 2007. Department of Agriculture and Rural Development, Northern Ireland, UK. Unpublished government report.

26. **Abernethy D.** (2006). Field Study of Within-Herd Movement of Cattle. December 2006. Department of Agriculture and Rural Development, Northern Ireland, UK. Unpublished government report.
27. **Abernethy D.** (2006). Epidemiological assessment of bovine brucellosis in Armagh DVO, December 2005 to October 2006. November 2006. Department of Agriculture and Rural Development, Northern Ireland, UK. Unpublished government report.
28. **Abernethy D.** (2006). Enhancement of Brucellosis Eradication in Northern Ireland: Ideas Paper. October 2006. Department of Agriculture and Rural Development, Northern Ireland, UK. Unpublished government report.
29. **Abernethy D.** (2006). Evaluation of cull-cow (OTMS) sampling as a surveillance measure for bovine brucellosis. January 2006. Department of Agriculture and Rural Development, Northern Ireland, UK. Unpublished government report.
30. **Abernethy D.** (2005). Assessment of the Extent of Fraud in Bovine Brucellosis November 2005. Department of Agriculture and Rural Development, Northern Ireland, UK. Unpublished government report.
31. **Abernethy D.** (2005). Epidemiological Evaluation of Bulk Milk Tank Surveillance, by ELISA Testing, for Bovine Brucellosis. October 2005. Department of Agriculture and Rural Development, Northern Ireland, UK. Unpublished government report.
32. **Abernethy D.,** Menzies F., McCullough S., McDowell S and Watt R. (2005). Parallel Field Trial of Six Serological Tests for Detection of Bovine Brucellosis. Report of Working Group. September 2005. Department of Agriculture and Rural Development, Northern Ireland, UK. Unpublished government report.
33. **Abernethy D.** (2005). Assessment of herd-level risk factors for brucellosis in Northern Ireland. September 2005. Department of Agriculture and Rural Development, Northern Ireland, UK. Unpublished government report.
34. **Abernethy D.** (2005). Foot and Mouth Disease: Assessment of Policy on Contiguous and 1-km Pre-emptive Culling. May 2005. Department of Agriculture and Rural Development, Northern Ireland, UK. Unpublished government report.
35. **Abernethy D.** (2005). Within-Herd Movement: Field Project - Interim Report: June 2005. Department of Agriculture and Rural Development, Northern Ireland, UK. Unpublished government report.
36. **Abernethy D.** (2004). Spatio-temporal distribution of TB herds and potential target areas for badger removal. October 2004. Department of Agriculture and Rural Development, Northern Ireland, UK. Unpublished government report.
37. **Abernethy D.** (2004). Bovine Brucellosis: Risk of disease-spread from abattoirs with reactor contracts. Part 1: Assessment of risk in area around abattoirs. March 2004. Department of Agriculture and Rural Development, Northern Ireland, UK. Unpublished government report.
38. **Abernethy D.** (2003). Investigation of the Diagnostic Efficacy of Tuberculin Batch 13. December 2003. Department of Agriculture and Rural Development, Northern Ireland, UK. Unpublished government report.
39. Anon. (2003). Possible Applications of Interferon-gamma Testing for Bovine Tuberculosis in Northern

Ireland. Report of Working Group. December 2003 (co-author). Department of Agriculture and Rural Development, Northern Ireland, UK. Unpublished government report.

40. **Abernethy D.** (2003). Bovine Tuberculosis Review: Proposal For Further Work Regarding Badgers And Bovine-Bovine Transmission. January 2003. Department of Agriculture and Rural Development, Northern Ireland, UK. Unpublished government report.
41. **Abernethy D.** (2002). Analysis of Between-herd Movement of Cattle in Northern Ireland. January 2003. Department of Agriculture and Rural Development, Northern Ireland, UK. Unpublished government report.
42. **Abernethy D.** (2002). Bovine Tuberculosis Review: Options for future badger work. December 2002. Department of Agriculture and Rural Development, Northern Ireland, UK. Unpublished government report.
43. **Abernethy D.** (2002). Bovine Tuberculosis: Badger Road Traffic Accident (RTA) Survey Update. September 2002. Department of Agriculture and Rural Development, Northern Ireland, UK. Unpublished government report.
44. **Abernethy D.** (2002). Descriptive Epidemiology of Bovine Tuberculosis: 1990 to August 2001. In Department of Agriculture, Northern Ireland: Control of Bovine Tuberculosis. Policy Review. July 2002. Unpublished government report.
45. **Abernethy D.** (2002). Bovine Tuberculosis: Effect of test interval on future herd and animal incidence. February 2002. Department of Agriculture and Rural Development, Northern Ireland, UK. Unpublished government report.
46. **Abernethy D.** (2002). Bovine Brucellosis: Sensitivity of the Serum Agglutination Test. February 2002. Department of Agriculture and Rural Development, Northern Ireland, UK. Unpublished government report.
47. **Abernethy D.** (2002). Bovine Tuberculosis: An Intervention Strategy for Badger Research in N.I. January 2002. Department of Agriculture and Rural Development, Northern Ireland, UK. Unpublished government report.
48. McMurray C., **Abernethy D.**, Kennedy S., Douglas A., Malone F. (2001). BSE Over Thirty Month Casualty Slaughter Survey, Northern Ireland 2000. Report to Spongiform Encephalopathy Advisory Committee (SEAC). 27 June 2001.
49. **Abernethy D.** (2001). Scrapie in Northern Ireland: Results of a Postal/Interview Survey. February 2001. Department of Agriculture and Rural Development, Northern Ireland, UK. Unpublished government report.
50. **Abernethy D.** (2001). BSE: Preliminary Epidemiological Analysis of OTMS Casualty Animal Survey. February 2001. Department of Agriculture and Rural Development, Northern Ireland, UK. Unpublished government report.

6 OTHER SCHOLARLY RESEARCH-BASED CONTRIBUTIONS

Participation in conferences, workshops and short courses - specify type of contribution

National Conferences & Workshops

(a) Workshops

Department of Agriculture, Fisheries and Food Policy Workshop: Faculty of Veterinary Science, University of Pretoria, Pretoria. 01 – 03 February 2016. Workshop involving international brucellosis experts and DAFF policymakers, epidemiologists and veterinarians, funded by Belgian Development Corporation, to explore methods to optimize current brucellosis programme. I conceived idea, obtained funding, organized and chaired workshop.

Southern African Development Community Networking Workshop: 17 – 18 November 2015. Workshop involving representatives (policy/laboratory veterinarians) from seven SADC countries and international experts to evaluate current state of brucellosis control in southern Africa and explore means to progress control schemes. Workshop funded by Institute of Tropical Medicine, Belgium. I conceived idea, obtained funding, organized and chaired workshop.

Brucellosis Research Workshop: 13 – 15 May 2015. Workshop comprising central and provincial DAFF veterinarians and brucellosis programme managers, researchers and international experts to identify and prioritize brucellosis research projects for South Africa. Workshop funded by Belgian Development Corporation. I conceived idea, obtained funding, organized and chaired workshop.

Animal Disease Prioritisation Workshop for RSA and SADC. ARC-OVI-organised 4-day workshop (02-03 April and 14-15 May 2014, Pretoria. Attended as faculty representative; undertook data analysis and presentation of findings.

Abernethy, D.A. Key issues in BTB & Brucellosis Control. Oral Presentation to DAFF-organised national workshop on the control of bovine tuberculosis and bovine brucellosis in South Africa. Pretoria, 05 February 2014. Also acted as facilitator during the discussion sessions of the workshop.

(b) Conferences:

Abernethy, D.A. (2017). Animal Diseases Approaching the South African Frontier. CropLife SA-SA Animal Health Association Combined Congress. Kopanong Hotel and Conference Centre, Johannesburg, South Africa, 5&6 September 2017. Invited Paper.

Abernethy, D.A., Burroughs R. and Van Rooyen J. (2017). Multidisciplinary and Multi-Objective Approaches in Support of the National Biodiversity Research and Evidence Strategy: One Health and the Mnisi Community Programme – A Case Study. 2nd Annual Biodiversity Research and Evidence Indaba, Johannesburg, South Africa, 17-18 August 2017.

Nogwebela T., Thompson P. & **Abernethy D.A.** (2017). Case-control study on the risk factors for Bovine Brucellosis in KwaZulu-Natal. South African Society for Veterinary Epidemiology and Preventive Medicine 2017 Congress, OR Tambo Conference Centre, Johannesburg, South Africa, 25-17 July 2017.

Mpofu D., Thompson P. & **Abernethy D.A.** (2017). A cross-sectional study of brucellosis-related characteristics of smallholder cattle herds in Gauteng Province. Gauteng Department of Agriculture, 10th Annual Agriculture Research Symposium. Pretoria. 07 June 2017.

Bastiaansen, PXM., **Abernethy, D.** & Etter, EMC. (2016). Risk Analysis in Animal Health: Threat or Opportunity for Africa? South African Society for Veterinary Epidemiology and Preventive Medicine. Proceedings of the 14th annual congress of the Southern African Society for Veterinary Epidemiology and Preventive Medicine. Cape Town. 24-26 August 2016.

Govindasamy K., Harris B.N., Russouw J., Geertsma P.J., Thompson, P. & **Abernethy D.A.** (2016). Seroprevalence and Knowledge of Bovine Brucellosis in Farm Workers, Animal Health Technicians and Abattoir Workers in Gauteng, 2016 – A Pilot Study. South African Society for Veterinary Epidemiology and Preventive Medicine. Proceedings of the 14th annual congress of the Southern African Society for Veterinary Epidemiology and Preventive Medicine. Cape Town. 24-26 August 2016.

Govindasamy K., Geertsma P.J. & **Abernethy D.A.** (2016). Bovine Brucellosis Serological Survey in Gauteng Province (2016). South African Society for Veterinary Epidemiology and Preventive Medicine. Proceedings of the 14th annual congress of the Southern African Society for Veterinary Epidemiology and Preventive Medicine. Cape Town. 24-26 August 2016.

Govindasamy, K., Geertsma, P., Potts, A. & **Abernethy, D.A.** (2016). Brucellosis in Cattle, Gauteng, 2007-2013. South African Society for Veterinary Epidemiology and Preventive Medicine. Proceedings of the 12th annual congress of the Southern African Society for Veterinary Epidemiology and Preventive Medicine. Cape Town. 20-22 August 2014.

Abernethy, D.A. Faith, Hope and Clarity: The use of serological screening to control bovine brucellosis. A European Perspective. (2013). Livestock Health & Production Group Conference. Port Elizabeth, 27 – 29 May 2013. Oral presentation.

Courcier, E.A., Menzies, F.D., Strain, S., Patterson, T., Harwood, R., Robinson, P.R., McBride, K.R. and **Abernethy, D.A.** (2012). *Mycobacterium bovis* surveillance using European badgers (*Meles meles*) killed by vehicles in Northern Ireland: results from 1998 to 2010. International Wildlife tuberculosis conference, Skukuza, Kruger National Park, 9-12 September 2012. p. 16 (abstract 20).

D.A. Abernethy, J. Moscard-Costello, E. Dickson, R. Harwood, K. Burns, E. McKillop, S. McDowell, D.U. Pfeiffer. (2012). Epidemiology and Management of a Bovine Brucellosis Cluster in Northern Ireland. Proceedings of the 10th annual congress of the Southern African Society for Veterinary Epidemiology and Preventive Medicine. Pretoria 1 – 3 August 2012.

International Workshops & Conferences

(1) Workshops:

Abernethy D. (2016). Brucellosis in Parallel: Lessons Learnt from Northern Ireland and South Africa. Brucellosis Control in Sub-Saharan Africa - What Next? International Workshop held under the auspices of the Nelson Mandela African Institution of Science and Technology, Arusha, Tanzania, funded by the Biotechnology and Biological Sciences Research Council, UK. Invited Paper. 23 January 2016.

(2) Conference Presentations:

Abernethy D.A. Challenges in Complexity: How Brucellosis Thrives in the Science-Policy Interface Space. 5th International One Health Congress, 22-25 June 2018. Saskatoon, Canada.

Abernethy D.A. Zoonoses and One Health: Collaboration for Eradication. Public Health Conference, Gallagher Convention Centre, Johannesburg, South Africa, 07 – 08 June 2017. Invited paper.

Govindasamy K, Geertsma P, Potts A. & **Abernethy D.** (2014). Descriptive Analysis of *Brucella abortus* in Gauteng Province, South Africa, 2009-2013. Berlin, Germany.

Abernethy, D.A. The control of bovine tuberculosis in wildlife: searching for the “how?” rather than “why?” in an uncertain world. International Wildlife tuberculosis conference, Skukuza, Kruger National Park, South Africa, 9-

12 September 2012. p. 21 (Plenary Session 3). Invited paper.

Courcier, E.A., Menzies, F.D., Strain, S., Patterson, T., Harwood, R., Robinson, P.R., McBride, K.R. and **Abernethy, D.A.** (2012). *Mycobacterium bovis* surveillance using European badgers (*Meles meles*) killed by vehicles in Northern Ireland: results from 1998 to 2010. International Wildlife tuberculosis conference, Skukuza, Kruger National Park, South Africa, 9-12 September 2012. p. 16 (abstract 20).

Courcier, E.A., Short, H.D., Kennedy, D.G., Price, P., Menzies, F.D. & **Abernethy, D.A.** (2012). Evaluating non statutory sampling schemes in red meat chemical residue surveillance in Northern Ireland. In: Proceedings of 13th Symposium of the International Society for Veterinary Epidemiology and Economics, Maastricht, Holland, 19 – 24 August 2012. Available at: <http://www.sciquest.org.nz/node/80341>

Hartnack, S., Lewis, F.I., **Abernethy, D.A.**, Menzies, F.D. & Greiner, M. (2012). Bayesian latent models with random effects to estimate test accuracies of six different serological tests for *Brucella abortus*. In: Proceedings of 13th Symposium of the International Society for Veterinary Epidemiology and Economics, Maastricht, Holland, 19 – 24 August 2012. Available at: <http://www.sciquest.org.nz/node/80344>

Abernethy D.A., Moscard-Costello J., Dickson E., Harwood R., Burns K., McKillop E., McDowell S. & Pfeiffer D.U. (2012). Epidemiology and management of a bovine brucellosis cluster in Northern Ireland. Proceedings of the 10th Annual Congress of the Southern African Society for Veterinary Epidemiology and Preventative Medicine, 1-3 August 2012, Pretoria, South Africa. Pages: 41 Published: 2012

S.H. Downs, J. Parry, J. Nunez-Garcia, **D.A. Abernethy**, J.M. Broughan, A.R. Cameron, A.J. Cook, R. de la Rua-Domenech, A.V. Goodchild, M. Greiner, J. Gunn, S.J. More, S. Rhodes, S. Rolfe, M. Sharp, P. Upton, H.M. Vordermeier, E. Watson, M. Welsh, A.O. Whelan, J.A. Woolliams, R.S. Clifton-Hadley. Meta-analysis of diagnostic test performance and modelling of testing strategies for control of bovine tuberculosis in Great Britain. Society for Veterinary Epidemiology and Preventive Medicine, Leipzig, Germany, 23 – 25 March, 2011.

Abernethy, D.A., Graham D., Skuce R., Gordon A., Menzies F., Robinson P., Harwood R & Clarke N. Shifting the TB-control paradigm: an epidemiological critique of the Bovine Tuberculosis Eradication Scheme. In: L. Alban and L.A. Kelly (eds.) Proceedings of a meeting held in Nantes, France 24th to 26th March 2010. Society for Veterinary Epidemiology and Preventive Medicine. P 166 – 173.

Abernethy D., de la Rua-Domenech R. & More S. Bovine Tuberculosis in the UK and Ireland: New Approaches to an Old Disease. International Dairy Federation World Dairy Summit, Berlin, Germany, 20-24 September 2009. Invited Paper.

Menzies, F.D., **Abernethy, D.A.**, Stringer, L.A., Robinson, P.A. and Jordan, C. (2009). Observations on badger activity in two areas of high and low cattle tuberculosis incidence in Northern Ireland. *M. bovis* V conference. Wellington, New Zealand. 25-28 August 2009. p.83 (abstract).

Abernethy, D.A., Graham, J., Harwood, R., Verner, S., Menzies, F., McCullough, S., McDowell, S. & Pfeiffer, D. Between rocks and hard places: parallel testing in Northern Ireland with the SAT and iELISA. International research conference on brucellosis held in London, 10-13 September 2008.

Stringer LA, Guitian FJ, **Abernethy DA**, Honhold NH, Menzies FD - Risk associated with animals moved from herds infected with brucellosis in Northern Ireland. In: Proceedings of the 11th Symposium of the International Society for Veterinary Epidemiology and Economics, Cairns, Australia: ISVEE 11, 756, 2006. T2-1.3.5

Menzies FD, **Abernethy DA**, Stringer LA, Honhold N, Denny GO. Are the progeny of *Mycobacterium bovis* infected dams at a greater risk of developing bovine tuberculosis? In: Proceedings of the 11th Symposium of the International Society for Veterinary Epidemiology and Economics, Cairns, Australia: ISVEE 11, 756, 2006. T2-2.4.4. Available at <http://www.sciquest.org.nz/node/64029>

Abernethy DA, Clarke M and Pfeiffer DU. Systematic reviews: enhancing transparency and objectivity in scientific reviews. In: Proceedings of the 11th Symposium of the International Society for Veterinary Epidemiology and Economics, Cairns, Australia: ISVEE 11, 756, 2006. T4-4.4.3. Available at: <http://www.sciquest.org.nz/node/64339>.

Abernethy D.A., Menzies F.D., Pfeiffer D.U. & Stringer L. Does one size fit all? Strategic use of parallel testing for the detection of *Brucella abortus*. In: Proceedings of the 11th Symposium of the International Society for Veterinary Epidemiology and Economics, Cairns, Australia: ISVEE 11, 756, 2006. T3-3.2.5. Available at: <http://www.sciquest.org.nz/node/64338>

Abernethy D.A., Clarke MJ and Pfeiffer D.U. Systematic Review of Diagnostic Tests for *Brucella abortus*. A new approach to an old problem? Brucellosis Research Conference, Merida, Mexico. October 15-19, 2005.

Abernethy D.A., Denny G.O., Menzies F.D., McGuckian P., Honhold N. and Roberts A.R. The Northern Ireland programme for the control and eradication of *Mycobacterium bovis*. 4th International Conference on *Mycobacterium bovis*. Dublin, Ireland. 22-26 August 2005.

Abernethy, D.A., Denny, G.O.D., Pfeiffer, D.U., Wrigley, K. Survey for *Mycobacterium bovis* in Road-Traffic-Accident Badgers in Northern Ireland. In: Proceedings of 10th Symposium of the International Society for Veterinary Epidemiology and Economics, Viña del Mar, Chile, November 17-21, 2003. Paper No. 30.

Abernethy, D.A., Denny, G.O., O'Flaherty, R., Millar, B., Torrens, T.D. The Northern Ireland Animal Health Database: A 10-Year Review. In: Proceedings of 9th Symposium of the International Society for Veterinary Epidemiology and Economics, Breckenridge, Colorado, USA, August 7-11, 2000. Paper No. 320.

Abernethy, D.A., Pfeiffer, D.U., Denny G.O., Torrens, T.D., McCullough, S.J. and Graham, D.A. Evaluating airborne spread in a Newcastle epidemic in Northern Ireland. In: Proceedings of 9th Symposium of the International Society for Veterinary Epidemiology and Economics, Breckenridge, Colorado, USA, August 7-11, 2000. Paper No. 330;

Abernethy, D.A., Pfeiffer, D.U. and Neill, S.D. Case Control Study Examining the Role of Livestock Markets in the Transmission of Bovine Tuberculosis. In: M.V. Thrusfield and E.A. Goodall (eds.) Proceedings of a meeting held at University of Edinburgh from March 29th to 31st 2000. Society for Veterinary Epidemiology and Preventive Medicine. P 108-114

Conference Posters:

O'Hagan M.H.J., Courcier E.A., Drewe J.A., Gordon A.W., McNair J. & **Abernethy D.A.** (2013). Risk factors for visible lesions or positive laboratory tests in bovine reactor cattle in Northern Ireland. In: Proceedings of 13th Symposium of the International Society for Veterinary Epidemiology and Economics, Maastricht, Holland, 19 – 24 August, 2013.

Abernethy D.A., Menzies F., McCullough S., McDowell S., McKillop E., Verner S., Graham J. & Pfeiffer D.U. Evaluation of surveillance measures to detect *Brucella abortus* in a high density cattle population. 12th Symposium of the International Society for Veterinary Epidemiology and Economics, Durban, South Africa. 10-14 August 2009. Available at <http://www.sciquest.org.nz/node/68207>

Menzies, F.D., **Abernethy, D.A.**, Stringer, L.A. and Honhold, N. (2007). A survey of badger activity carried out in high and low TB cattle herd incidence areas. Society for Veterinary Epidemiology and Preventive Medicine, Dipoli, Helsinki, Finland, March 2007.

Abernethy DA, Pfeiffer DU, Menzies FD, Honhold N. Investigation of risk factors for bovine brucellosis in Northern Ireland using surveillance data. 11th Symposium of the International Society for Veterinary

Epidemiology and Economics, Cairns, Australia: ISVEE 11, 754, 2006. No. T2-P40

Menzies F.D., **Abernethy D.A.**, Honhold N., Stringer L.A. & Denny G.O. Assessment of vertical / pseudovertical transmission of *Mycobacterium bovis* infection in cattle. Society for Veterinary Epidemiology and Preventive Medicine, Exeter, UK. 29-31 March 2006

Abernethy D.A., Pfeiffer D.U., Menzies F.D. & Honhold N. *Investigation of risk factors for bovine brucellosis in Northern Ireland using surveillance data*. Brucellosis Research Conference, Merida, Mexico. October 15-19, 2005.

Abernethy D.A., Menzies F.D., McDowell S.W.J., McCullough S., Pfeiffer D.U. *Field Trial to compare diagnostic efficacy of 6 serological tests for Brucella abortus*. Brucellosis Research Conference, Merida, Mexico. October 15-19, 2005.

Abernethy D.A., Pfeiffer D.U., Menzies F.D., Honhold N. *Beyond between-herd movement: what happens within the herd?* 4th International Conference on *Mycobacterium bovis*. Dublin, Ireland. 22-26 August 2005.

Roberts A.R., **Abernethy D.A.**, Pfeiffer D.U. Herd Risk Factors for TB in High Incidence Area in Northern Ireland. 4th International Conference on *Mycobacterium bovis*, Dublin, Ireland, 22 -26 August 2005.

Abernethy D.A., Kelly P., Love J., Pfeiffer D.U. and Guitian J. *Investigation of Between-herd Transmission of Brucella abortus in Spatial Clusters in Northern Ireland*. GISVET 2004, Guelph, Ontario. 23 – 25 June 2004.

6.2.1 Short Courses

1995-2012: Northern Ireland: Involved in numerous training courses for private and state veterinarians on controlled diseases (bovine tuberculosis, bovine brucellosis, foot and mouth disease) and epidemiology.

June 2010: Lisbon, Portugal: 1-week training course for Portuguese state veterinarians on epidemiology, control of bovine tuberculosis and bovine brucellosis, outbreak investigation. Responsible for all teaching.

March 2014: Harare, Zimbabwe: High impact diseases and epidemiology training course for state veterinarians. Part of team involved in teaching epidemiology.

10 June 2014: Onderstepoort. Brucellosis Training Day for GDARD state veterinarians and animal health technicians. Responsible for setting programme and undertaking most of the teaching.

7.2 Teamwork and collaboration with others:

(1) International Collaborations:

- National expert on the Bovine Brucellosis Subgroup of the European Task Force, European Union (2001 to 2011); substitute national expert on the Bovine Tuberculosis Subgroup of the European Task Force (2001 to 2007). Invited as external expert in March 2014 by Bovine Subgroup to participate in assessment of Ireland's TB programme.
- National expert on European Commission Inspections to several South American countries (Argentina, 2001;

Brazil, 2002) to assess foot and mouth disease control/mitigation measures. Invited to train EU Inspectors on epidemiology principles, July 2002.

- Chair of the Epidemiology Working Group of Action 845 (“Brucellosis in Animals and Man”) of the COST initiative (European Co-operation in the field of Scientific and Technical Research), 2005 to 2006.
- National representative for the Business Assurance Group of RADAR, part of a national surveillance strategy developed by the Department of Environment, Food and Rural Affairs, Great Britain, 2005 to 2007.
- Member of multinational group funded by the Department of Environment, Food and Rural Affairs, Great Britain, to undertake meta-analysis of diagnostic tests for bovine tuberculosis in cattle, 2008 to 2010.
- Chair of multinational scientific group (representatives from England, Wales, Scotland, Northern Ireland and Republic of Ireland) with remit to provide descriptive statistics for bovine tuberculosis, using agreed, standardised measures, 2008 to 2012. Paper published 2013. Currently chairing similar group to provide update on bovine tuberculosis.

(2) National Collaborations:

These are still at an early stage but to date, have involved brucellosis workshops with regional and national veterinary authorities and joint proposals with NICD, also on brucellosis projects.

7.3 Membership in national and international bodies

- Society for Veterinary Epidemiology and Preventive Medicine – member
- Southern African Society for Veterinary Epidemiology and Preventive Medicine – member
- South African Veterinary Association – member
- Royal College of Veterinary Surgeons - member

9 MANAGEMENT AND ADMINISTRATIVE DUTIES

9.1 List your involvement in departmental activities (e.g. administrative functions), faculty (e.g. faculty committees) or other university activities.

- Dean (2014 – 2017)
- Head of Department (2012 – 2014)
- Faculty Teaching and Learning Committee (2012 – 2014)
- Journey for Change Committee (2012)

10 COMMUNITY SERVICE OR PROFESSIONAL SKILLS

10.5 Referee duties

Over last two years have served as referee for following journals: BMC Veterinary Research, Preventive Veterinary Medicine, Veterinary Microbiology, Transboundary and Emerging Diseases, Veterinary Record, Open Veterinary Record, Southern African Journal of Infectious Diseases.

