

Dr Nicola Collins

List of publications /books/book chapters

N. E. Collins, L. M. Kirschner and A. von Holy (1991). Characterisation of *Bacillus* isolates from ropey bread, bakery equipment and raw materials. *South African Journal of Science* **87**: 62-66.
M. K. Kibe, O. K. ole-MoiYoi, V. Nene, B. Khan, B. A. Allsopp,

N. E. Collins, S. P. Morzaria, E. I. Gobright and R. P. Bishop (1994). Evidence for two single copy units in *Theileria parva* ribosomal RNA gene. *Molecular and Biochemical Parasitology* **66**: 249-259.

N. E. Collins, E. P. De Villiers, K. A. Brayton, and B. A. Allsopp (1998). DNA sequence of a cosmid clone of *Cowdria ruminantium*. *Annals of the New York Academy of Sciences* **849**: 365-368.

K. A. Brayton, E. P. De Villiers, J. Fehrsen, C. Nxomani, **N. E. Collins** and B. A. Allsopp (1999). *Cowdria ruminantium* DNA is unstable in a SuperCos 1 library. *Onderstepoort Journal of Veterinary Research* **66**: 111-117.

N. E. Collins and B. A. Allsopp (1999). *Theileria parva* ribosomal internal transcribed spacer sequences exhibit extensive polymorphism and mosaic evolution: application to the characterization of parasites from cattle and buffalo. *Parasitology* **118**: 541-551.

R. Bishop, E. Gobright, P. Spooner, B. Allsopp, B. Sohanpal and **N. Collins** (2000). Microsequence heterogeneity and expression of the LSU rRNA genes within the two single copy ribosomal transcription units of *Theileria parva*. *Gene* **257**: 299-305.

E. P. de Villiers, P. M. Sharp, K. A. Brayton, **N. E. Collins**, E. Louw, A. Pretorius, B. A. Allsopp and F. Jongejan (2001). Synonymous codon usage in *Cowdria ruminantium*. In: E. P. de Villiers, Genome analysis of *Cowdria ruminantium*, Ph.D. thesis, University of Utrecht, Netherlands, pp93-112.

N. E. Collins, B. A. Allsopp, M. T. E. P. Allsopp (2002). Molecular diagnosis of theileriosis and heartwater in bovines in Africa. *Transactions of the Royal Society of Tropical Medicine and Hygiene* **96 Supplement 1**: S1/217-S1/224.

A. Pretorius, F. van Strijp, K. A. Brayton, **N. E. Collins** and B. A. Allsopp (2002). Genetic immunisation with *Cowdria* GroEL and GroES homologues. *Annals of the New York Academy of Sciences* **969**: 151-154.

A. Pretorius, **N. E. Collins**, H. C. Steyn and B. A. Allsopp (2002). Sequence analysis of three *Cowdria ruminantium* LambdaGEM-11 clones. *Annals of the New York Academy of Sciences* **969**: 155-158.

E. Louw, K. A. Brayton, **N. E. Collins**, A. Pretorius, F. van Strijp and B. A. Allsopp (2002). Sequencing of a 15kb *Cowdria ruminantium* clone and evaluation of the *cpg1* open reading frame for protection against heartwater. *Annals of the New York Academy of Sciences* **969**: 147-150.

H. van Heerden, **N. E. Collins**, M. T. Allsopp and B. A. Allsopp (2002). Major outer membrane proteins of *Ehrlichia ruminantium* encoded by a multigene family. *Annals of the New York Academy of Sciences* **969**: 131-134.

K. A. Brayton, **N. E. Collins**, F. van Strijp and Basil A. Allsopp (2003). Preparation of *Ehrlichia ruminantium* challenge material for quantifiable and reproducible challenge in mice and sheep. *Veterinary Microbiology* **112**: 63-73.

N. E. Collins, A. Pretorius, M. van Kleef, K. A. Brayton, M. T. Allsopp, E. P. Zwegarth and B. A. Allsopp (2003). Development of improved attenuated and nucleic acid vaccines for heartwater. *Developments in Biologicals* **114**: 95-110.

N. E. Collins, A. Pretorius, M. van Kleef, K. A. Brayton, E. P. Zwegarth and B. A. Allsopp (2003). Development of improved vaccines for heartwater. *Annals of the New York Academy of Sciences* **990**: 474-484.

H. van Heerden, **N. E. Collins**, K. A. Brayton, C. Rademeyer and B. A. Allsopp (2004). Characterization of a major outer membrane protein multigene family in *Ehrlichia ruminantium*. *Gene* **990**: 159-168.

N. E. Collins, J. Liebenberg, E. P. de Villiers, K. A. Brayton, E. Louw, A. Pretorius, F. E. Faber, H. van Heerden, A. Josemans, M. van Kleef, H. C. Steyn, M. F. van Strijp, E. Zwegarth, F. Jongejan, J. C. Maillard, D. Berthier, M. Botha, F. Joubert, C. H. Corton, N. R. Thomson, M. T. Allsopp and B. A. Allsopp (2005). The genome of the heartwater agent *Ehrlichia ruminantium* contains multiple tandem repeats of actively variable copy number. *Proceedings of the National Academy of Sciences of the USA* **102**, 838-843.

A. Pretorius, **N. E. Collins**, H. C. Steyn, M. F. van Strijp, M. van Kleef and B. A. Allsopp (2007). Protection against heartwater by DNA immunisation with four *Ehrlichia ruminantium* open reading frames. *Vaccine* **25**: 2316-2324.

M. C. Oosthuizen, E. Zwegarth, **N. E. Collins**, M. Troskie and B. L. Penzhorn (2008). Identification of a novel *Babesia* sp. from a sable antelope (*Hippotragus niger* Harris, 1838). *Journal of Clinical Microbiology* **46**: 2247-2251.

K. P. Sibeko, M. C. Oosthuizen, **N. E. Collins**, D. Geysen, N. E. Rambritch, A. A. Latif, H. T. Groeneveld, F. T. Potgieter and J. A. Coetzer (2008). Development and evaluation of a real-time polymerase chain reaction test for the detection of *Theileria parva* infections in Cape buffalo (*Syncerus caffer*) and cattle. *Veterinary Parasitology* **155**: 37-48

A. Pretorius, M. van Kleef, **N. E. Collins**, N. Tshikudo, E. Louw, F. E. Faber, M. F. van Strijp and B. A. Allsopp (2008). A heterologous prime/boost immunisation strategy protects against virulent *E. ruminantium* Welgevonden needle challenge but not against tick challenge. *Vaccine* **26**: 4363-4371.

R. Bhoora, L. Franssen, M. C. Oosthuizen, A. J. Guthrie, E. Zwegarth, B. L. Penzhorn, F. Jongejan and **N. E. Collins** (2009). Sequence heterogeneity in the 18S rRNA gene within *Theileria equi* and *Babesia caballi* from horses in South Africa. *Veterinary Parasitology* **159**: 112-120.

M. C. Oosthuizen, B. A. Allsopp, M. Troskie, **N. E. Collins** and B. L. Penzhorn (2009). Identification of novel *Babesia* and *Theileria* species in South African giraffe (*Giraffa camelopardalis*, Linnaeus, 1758) and roan antelope (*Hippotragus equinus*, Desmarest 1804). *Veterinary Parasitology* **163**: 39-46.

F. Lampen, R. Bhoora, **N. E. Collins** and B. L. Penzhorn (2009). Putative clinical piroplasmiasis in a Burchell's zebra (*Equus quagga burchelli*). *Journal of the South African Veterinary Association* **80**: 257-260.

K. P. Sibeko, D. Geysen, M. C. Oosthuizen, C. A. Matthee, M. Troskie M, F. T. Potgieter, J. A. Coetzer, **N. E. Collins** (2010). Four p67 alleles identified in South African *Theileria parva* field samples. *Veterinary Parasitology* **167**: 244-254.

R. Bhoora, M. Quan, L. Franssen, C. M. Butler, J. H. Van der Kolk, A. J. Guthrie, E. Zwegarth, F. Jongejan, **N. E. Collins** (2010). Development and evaluation of real-time PCR assays for the quantitative detection of *Babesia caballi* and *Theileria equi* infections in horses from South Africa. *Veterinary Parasitology* **168**: 201-211

R. Bhoora, M. Quan, E. Zwegarth, A. J. Guthrie, S. A. Prinsloo and **N. E. Collins** (2010). Sequence heterogeneity in the gene encoding the Rhostry Associated Protein-1 (RAP-1) of *Babesia caballi* isolates from South Africa. *Veterinary Parasitology* **169**: 279-288.

A. Pretorius, J. Liebenberg, E. Louw, **N. E. Collins**, B. A. Allsopp (2010). Studies of a polymorphic *Ehrlichia ruminantium* gene for use as a component of a recombinant vaccine against heartwater. *Vaccine* **28**: 3531-3539.

S. Yusufmia, **N. E. Collins**, R. Nkuna, M. Troskie, P. Van den Bossche and B. L. Penzhorn. (2010). Occurrence of *Theileria parva* and other haemoprotozoa in cattle at the edge of Hluhluwe-iMfolozi Park, KwaZulu-Natal, South Africa. *Journal of the South African Veterinary Association* **81**: 45-49.

R. Bhoora, M. Quan, E. Zweygarth, A. J. Guthrie and **N. E. Collins** (2010). Sequence heterogeneity in the equi merozoite antigen gene (*ema-1*) of *Theileria equi* and development of an *ema-1*-specific TaqMan MGB™ assay for the detection of *T. equi*. *Veterinary Parasitology* **172**: 33-45.

R. Bhoora, P. Buss, A. J. Guthrie, B. L. Penzhorn, **N. E. Collins** (2010). Genetic diversity of piroplasms in plains zebra (*Equus quagga burchellii*) and Cape mountain zebra (*Equus zebra zebra*) in South Africa. *Veterinary Parasitology* **174**: 145-149.

K. P. Sibeko, **N. E. Collins**, M. C. Oosthuizen, M. Troskie, F. T. Potgieter, J. A. Coetzer, D. Geysen (2011). Analyses of genes encoding *Theileria parva* p104 and polymorphic immunodominant molecule (PIM) reveal evidence of the presence of cattle-type alleles in the South African *T. parva* population. *Veterinary Parasitology* **181**: 120-130.

M. E. Chaisi, K. P. Sibeko, **N. E. Collins**, F. T. Potgieter, M. C. Oosthuizen (2011). Identification of *Theileria parva* and *Theileria* sp. (buffalo) 18S rRNA gene sequence variants in the African Buffalo (*Syncerus caffer*) population in Southern Africa. *Veterinary Parasitology* **182**: 150-162.

P. S. Brothers, **N. E. Collins**, M. C. Oosthuizen, R. Bhoora, M. Troskie, B. L. Penzhorn (2011). Occurrence of blood-borne tick-transmitted parasites in common tsessebe (*Damaliscus lunatus*) antelope in Northern Cape Province, South Africa. *Veterinary Parasitology* **183**: 160-165.

J. Liebenberg, A. Pretorius, F. E. Faber, **N. E. Collins**, B. A. Allsopp, M. van Kleef (2012). Identification of *Ehrlichia ruminantium* proteins that activate cellular immune responses using a reverse vaccinology strategy. *Veterinary Immunology and Immunopathology* **145**: 340-349.

M. E. Chaisi, **N. E. Collins**, F. T. Potgieter, M. C. Oosthuizen (2013). Sequence variation identified in the 18S rRNA gene of *Theileria mutans* and *Theileria velifera* from the African buffalo (*Syncerus caffer*). *Veterinary Parasitology* **191**: 132-137.

M. E. Chaisi, M. E. Janssens, L. Vermeiren, M. C. Oosthuizen, **N. E. Collins**, D. Geysen (2013). Evaluation of a real-time PCR test for the detection and discrimination of *Theileria* species in the African buffalo (*Syncerus caffer*). *PLoS One* 8(10): e75827. doi: 10.1371/journal.pone.0075827.

Papers and posters presented at conferences

N. E. Collins, R. R. H. Hill and H. Cowley (1990). Ultrastructural damage to vervet monkey colonic epithelium caused by an extracellular *Shigella* factor. **Paper** presented at the Sixth Biennial Congress of the South African Society for Microbiology, Stellenbosch, South Africa.

N. E. Collins, L. M. Kirschner and A. von Holy (1990). Morphological characterisation of *Bacillus subtilis* associated with bread manufacture. **Poster** presented at the Electron Microscopy Society of South Africa Conference (EMSSA), Grahamstown, South Africa.

N. E. Collins and B. A. Allsopp (1993). Sequence of the small subunit ribosomal RNA and transcribed spacer of *Theileria parva lawrencei*. **Poster** presented at the 22nd Annual Congress of the Parasitological Society of Southern Africa (PARSA), St. Lucia, South Africa.

N. E. Collins and B. A. Allsopp (1994). Characterisation oligonucleotides for *Theileria parva parva* and *T. p. lawrencei*. **Poster** presented at the 12th Congress of the South African Biochemical Society, Stellenbosch, South Africa.

N. E. Collins and B. A. Allsopp (1995). Sequence variation in the *Theileria parva* internal transcribed spacer. **Paper** presented at the 2nd International Conference on Tick-borne pathogens at the host-vector interface, Kruger Park, South Africa.

N. E. Collins and B. A. Allsopp (1996). Characterization of *Theileria parva* parasites using ribosomal RNA gene sequences. **Poster** presented at the All Africa Conference on Animal Agriculture, Pretoria, South Africa.

N. E. Collins, E. P. de Villiers, K. A. Brayton and B. A. Allsopp (1997). DNA sequence of a cosmid clone of *Cowdria ruminantium*. **Poster** presented at the 4th Biennial Meeting of the Society for Tropical Veterinary Medicine (STVM), Montpellier, France.

N. E. Collins, A. Pretorius, M. Van Kleef, K. A. Brayton, and B. A. Allsopp (2002). A DNA vaccine provides protection against heartwater in a laboratory challenge. **Poster** presented at DNA Vaccines 2002, The Gene Vaccine Conference, Edinburgh, Scotland, United Kingdom.

N. E. Collins, M. Oosthuizen, V. Pillay, F. Jongejan, M. de Boer and J.A.W. Coetzer (2004). The need for molecular tools in veterinary diagnostics. **Paper** presented at Bio2Biz SA 2004, Gallagher Estate, Midrand, South Africa.

R. Bhoora, M. Quan, A. J. Guthrie, E. Zwegarth and **N. E. Collins** (2008). Development of a quantitative real-time PCR assay for the detection of *Babesia caballi* infections in equids. **Paper** presented at the 37th Annual Conference of the Parasitological Society of Southern Africa (PARSA), Onderstepoort, Pretoria. Abstract published in *Journal of the South African Veterinary Association* (2009) 80: 126–140.

Papers and posters presented by colleagues and students at conferences

L. M. Kirschner, **N. E. Collins** and A. von Holy (1990). Slime formation by rope-inducing *Bacillus subtilis*. **Poster** presented at the EMSSA. Conference, Grahamstown, South Africa.

B. A. Allsopp, K. A. Brayton, **N. E. Collins**, M. T. Allsopp and E. P. de Villiers (2000). The *Cowdria ruminantium* genome sequencing project. **Poster** presented at Human Genome Meeting 2000, Vancouver, Canada.

A. Pretorius, F. van Strijp, K. A. Brayton, **N. E. Collins** and B. A. Allsopp (2001). Genetic immunisation with *Cowdria* GroEL and GroES homologues. **Poster** presented at the STVM and the Wildlife Disease Joint Conference, Pilanesberg, South Africa.

A. Pretorius, **N. E. Collins**, H. C. Steyn and B. A. Allsopp (2001). Sequence analysis of three *Cowdria ruminantium* LambdaGEM-11 clones. **Poster** presented at the STVM and the Wildlife Disease Joint Conference, Pilanesberg, South Africa.

E. Louw, K. A. Brayton, **N. E. Collins**, A. Pretorius, F. van Strijp and B. A. Allsopp (2001). Sequencing of a 15kb *Cowdria ruminantium* clone and evaluation of the *cpg1* open reading frame for protection against heartwater. **Poster** presented at the STVM and the Wildlife Disease Joint Conference, Pilanesberg, South Africa.

H. van Heerden, **N. E. Collins**, M. T. Allsopp and B. A. Allsopp (2001). Major outer membrane proteins of *Ehrlichia ruminantium* encoded by a multigene family. **Paper** presented at the STVM and the Wildlife Disease Joint Conference, Pilanesberg, South Africa.

A.-M. Bosman, E. H. Venter, **N. Collins** and B. L. Penzhorn (2004). New *Babesia* parasites in cheetahs and other wild felids. **Paper** presented at the 33rd Annual Congress of the Parasitological

Society of Southern Africa (PARSA), Pilanesburg National Park, South Africa. Abstract published in *Journal of the South African Veterinary Association* (2005) **76**: 172-183.

K. P. Sibeko, **N. E. Collins**, M. Oosthuizen and D. Geysen (2005). Characterization of South African *Theileria parva* isolates. **Paper** presented at the 34th Annual Congress of the Parasitological Society of Southern Africa (PARSA), Magoebaskloof Hotel, Limpopo Province, South Africa. Abstract published in *Journal of the South African Veterinary Association* (2006) **77**: 92-113.

R. Bhoora, V. Pillay, **N. E. Collins**, E. Zweygarth and A. Guthrie (2005). 18S sequence data reveals genetic diversity in *Theileria equi* and *Babesia caballi*. **Poster** presented at the 34th Annual Congress of the Parasitological Society of Southern Africa (PARSA), Magoebaskloof Hotel, Limpopo Province, South Africa. Abstract published in *Journal of the South African Veterinary Association* (2006) **77**: 92-113.

M. S. Mtshali, P. A. Mbatii, K. M. Kocan, V. Shkap, **N. E. Collins**, A. A. Latif and A. M. Spickett (2005). Detection of multiple tick-borne pathogens in cattle at Ficksburg and Reitz, eastern Free State, South Africa using reverse line blot hybridisation. **Poster** presented at the 34th Annual Congress of the Parasitological Society of Southern Africa (PARSA), Magoebaskloof Hotel, Limpopo Province, South Africa. Abstract published in *Journal of the South African Veterinary Association* (2006) **77**: 92-113.

M. C. Oosthuizen, **N. E. Collins** and B. L. Penzhorn (2005). Piroplasmosis as a possible cause of mortality in giraffes. **Poster** presented at the 34th Congress of the Parasitological Society of Southern Africa (PARSA), Magoebaskloof Hotel, Limpopo Province, South Africa. Abstract published in *Journal of the South African Veterinary Association* (2006) **77**: 92-113.

K. P. Sibeko, **N. E. Collins**, M. Oosthuizen and D. Geysen (2006). Genetic diversity of South African *Theileria parva* isolates. **Paper** presented at the 35th Annual Congress of the Parasitological Society of Southern Africa (PARSA), Windhoek, Namibia. Abstract published in *Journal of the South African Veterinary Association* (2007) **78**: 99-113.

M. C. Oosthuizen, A.-M. Bosman, **N. E. Collins** and B. L. Penzhorn (2006). Molecular characterisation of a *Babesia* sp. from sable antelope. **Poster** presented at the 35th Annual Congress of the Parasitological Society of Southern Africa (PARSA), Windhoek, Namibia. Abstract published in *Journal of the South African Veterinary Association* (2007) **78**: 99-113.

M. C. Oosthuizen, A.-M. Bosman, **N. E. Collins** and B. L. Penzhorn (2006). Molecular characterization of a *Babesia* sp. from sable antelope. **Paper** presented at the Wildlife Disease Association, Africa & Middle East section, 4th Annual Section Meeting, Nanyuki, Kenya.

K. P. Sibeko, M. C. Oosthuizen, D. Geysen and **N. E. Collins** (2007). Genetic diversity of South African *Theileria parva* isolates. **Poster** presented at the 2nd European Wildlife Diseases Association Student Chapter Workshop, Sithonia, Greece.

R. Bhoora, L. Franssen, A.J. Guthrie, E. Zweygarth, M.C. Oosthuizen, B.L. Penzhorn, F. Jongejan and **N.E. Collins** (2007). Characterization of South African *Theileria equi* and *Babesia caballi* isolates based on 18S rRNA gene sequences. **Paper** presented at the 21st International Conference of the World Association for the Advancement of Veterinary Parasitology (WAAVP), Ghent, Belgium.

K. P. Sibeko, M. C. Oosthuizen, D. Geysen and **N. E. Collins** (2007). Genetic diversity of South African *Theileria parva* isolates. **Paper** presented at the 21st International Conference of the World Association for the Advancement of Veterinary Parasitology (WAAVP), Ghent, Belgium.

M. C. Oosthuizen, **N. E. Collins**, E. Zweygarth and B. L. Penzhorn (2007). Molecular characterization of a *Babesia* sp. from sable antelope. **Paper** presented at the 21st International Conference of the World Association for the Advancement of Veterinary Parasitology (WAAVP), Ghent, Belgium.

M. C. Oosthuizen, **N. E. Collins** and B. L. Penzhorn (2007). Piroplasmosis as a possible cause of mortality in giraffes. **Poster** presented at the 21st International Conference of the World Association for the Advancement of Veterinary Parasitology (WAAVP), Ghent, Belgium.

R. Bhoora, L. Franssen, A.J. Guthrie, E. Zweygarth, M.C. Oosthuizen, B.L. Penzhorn, F. Jongejan and **N.E. Collins** (2007). Characterization of South African *Theileria equi* and *Babesia caballi* isolates based on 18S rRNA gene sequences. **Paper** presented at the 36th Annual Conference of the Parasitological Society of Southern Africa (PARSA), Malelane, South Africa. Abstract published in *Journal of the South African Veterinary Association* (2009) 80: 115–125.

K. P. Sibeko, M. C. Oosthuizen, D. Geysen and **N. E. Collins** (2007). Characterization of South African *Theileria parva* isolates by PCR-RFLP and sequence analysis of the polymorphic immunodominant molecule (PIM) gene. **Poster** presented at the 36th Annual Congress of the Parasitological Society of Southern Africa (PARSA), Malelane, South Africa. Abstract published in *Journal of the South African Veterinary Association* (2009) 80: 115–125.

M. E. Chaisi, K. P. Sibeko, **N. E. Collins** and M. C. Oosthuizen (2007). *Theileria* species infection in the Cape buffalo (*Syncerus caffer*) in two game parks in South Africa. **Poster** presented at the 36th Annual Congress of the Parasitological Society of Southern Africa (PARSA), Malelane, South Africa. Abstract published in *Journal of the South African Veterinary Association* (2009) 80: 115–125.

K. P. Sibeko, M. C. Oosthuizen, **N. E. Collins**, D. Geysen, A. A. Latif, N. Rambritch, H. T. Groeneveld, F. T. Potgieter and J. A. W. Coetzer (2007). Development and evaluation of a real-time PCR test for detection of *Theileria parva* infections in Cape buffalo (*Syncerus caffer*) and cattle. **Paper** presented at the 13th International Symposium for the World Association for Veterinary Laboratory Diagnosticians (WAVLD), Melbourne, Australia.

R. Bhoora, B. L. Penzhorn, A. J. Guthrie and **N. E. Collins** (2008). Determining the genetic diversity of *Theileria equi* and *Babesia caballi* in Zebra (*Equus quagga* and *Equus zebra*). **Paper** presented at the 2008 Biennial Conference of the European Wildlife Disease Association (EWDA), Rovinj, Croatia.

R. Bhoora, M. Quan, A. J. Guthrie and **N. E. Collins** (2008). Development of a quantitative real-time PCR assay for the detection of *Babesia caballi* infections in equids. **Paper** presented at the VI International Conference on Ticks and Tick-borne Pathogens (TTP-6), Buenos Aires, Argentina.

K. P. Sibeko, D. Geysen, M. C. Oosthuizen, C. A. Mathee, M. Troskie, F. T. Potgieter, J. A. W. Coetzer and **N. E. Collins** (2008). Four p67 genotypes identified in South African *Theileria parva* field samples. **Poster** presented at the VI International Conference on Ticks and Tick-borne Pathogens (TTP-6), Buenos Aires, Argentina.

M. C. Oosthuizen, M. Troskie, E. Zweygarth, **N. E. Collins** and B. L. Penzhorn (2008). Identification of novel *Babesia* and *Theileria* species from sable, roan and giraffe. **Poster** presented at the VI International Conference on Ticks and Tick-borne Pathogens (TTP-6), Buenos Aires, Argentina.

M. E. Chaisi, K. P. Sibeko, M. Troskie, **N. E. Collins** and M. C. Oosthuizen (2008). Identification of a novel *Theileria* species from African buffalo using 18S rRNA gene sequence analysis. **Poster** presented at the VI International Conference on Ticks and Tick-borne Pathogens (TTP-6), Buenos Aires, Argentina.

M. E. Chaisi, F. T. Potgieter, K. P. Sibeko, M. Troskie, **N. E. Collins** and M. C. Oosthuizen (2008). Identification of *Theileria mutans* genotypes from African buffalo using 18S rRNA gene sequence analysis. **Paper** presented at the 37th Annual Conference of the Parasitological Society of Southern Africa (PARSA), Onderstepoort, South Africa. Abstract published in *Journal of the South African Veterinary Association* (2009) 80: 126–140.

R. Bhoora, L. Franssen, M. Quan, M. C. Oosthuizen, A. J. Guthrie, E. Zweygarth, B. L. Penzhorn, F. Jongejan and **N.E. Collins** (2009). Sequence heterogeneity in *Babesia caballi* and *Theileria equi* in South Africa and development of a real-time PCR test for detection of *B. caballi*. **Paper** presented at the 14th International Symposium of the World Association of Veterinary Laboratory Diagnosticians (WAVLD), Madrid, Spain.

M. E. Chaisi, **N. E. Collins** and M. C. Oosthuizen (2009). Identification of novel *Theileria* genotypes of the African Buffalo (*Syncerus caffer*) by means of Reverse Line Blot (RLB) hybridization assay and 18S rDNA sequence analysis. **Poster** presented at the 10th Biennial Conference of the Society for

Tropical Veterinary Medicine (STVM), Lübeck, Germany **and** at the 14th International Symposium of the World Association of Veterinary Laboratory Diagnosticians (WAVLD), Madrid, Spain.

R. Bhoora, E. Zweygarth, A. J. Guthrie, S. A. Prinsloo and **N. E. Collins** (2009). Investigating the Rhostry Associated Protein-1 (RAP-1) gene of *Babesia caballi*. **Poster** presented at the 22nd Conference of the World Association for the Advancement of Veterinary Parasitology (WAAVP), Calgary, Canada.

K. P. Sibeko, D. Geysen, M. C. Oosthuizen, M. Troskie, F. T. Potgieter, J. A. W. Coetzer and **N. E. Collins** (2009). Diversity of *Theileria parva* in South Africa as shown by PCR-RFLP and sequence analysis of the genes coding for the antigenic genes, polymorphic immunodominant molecule (PIM) and p104. **Poster** presented at the 22nd Conference of the World Association for Advancement of Veterinary Parasitology (WAAVP), Calgary, Canada.

M. E. Chaisi, **N. E. Collins** and M. C. Oosthuizen (2009). Molecular characterization of *Theileria* species of the African buffalo (*Syncerus caffer*) by 18S rRNA gene sequence analysis. **Paper** presented at the 22nd Conference of the World Association for the Advancement of Veterinary Parasitology (WAAVP), Calgary, Canada.

M. E. Chaisi, **N. E. Collins** and M. C. Oosthuizen (2009). Molecular characterization of *Theileria* species of the African buffalo (*Syncerus caffer*) by 18S rRNA gene sequence analysis. **Paper** presented at the 38th Annual Conference of the Parasitological Society of Southern Africa (PARSA), Magaliesberg, South Africa. Abstract published in *Journal of the South African Veterinary Association* (2010) **81**: 178–187.

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