

## Book Chapters

Geisert, R. D., Ross, J. W., Ashworth, M.D., White, F. J., Johnson, G. A., Hu, J., and **DeSilva U.** 2005 Maternal recognition of pregnancy signal or endocrine disruptor: The two faces of oestrogen during establishment of pregnancy in the pig. In: Control of Pig Reproduction VII. R. Kraeling and C. Ashworth, Eds, Nottingham University Press, pp 131-145

## Peer-reviewed publications (n=25)

James, M. M., **DeSilva, U.** and Gilland, S. E., (2009) A Diagnostic method to allow strain-level identification of enterotoxigenic *Staphylococcus aureus* based on the nucleotide sequence of enterotoxin gene and the amino acid sequence of its enterotoxin (submitted)

Fernando, S. C., Purvis, H. T., Najar, F. Z., Sukharnikov, L. O., Krehbiel, C. R., Nagaraja, T. G., Roe, B. A., and **DeSilva, U.** (2009) Rumen microbial population dynamics during sub acute ruminal acidosis. (submitted)

Talley, J. L., Wayadande, A. C., Wasala, L. P., Gerry, A. C., Fletcher, J., **DeSilva, U.**, and Gilliland, S. E. (2009) Association of E.coli O157:H7 with flies (Muscidae, Calliphoridae) captured in leafy green fields and experimental transmission to spinach leaves by house flies (Diptera: Muscidae). (In Press) Journal of Food Protection

Reddy, A.R., Zheng, Y., Jagadeeswaran, G., Macmil, S., Wiley, G., Roe, B.A., **DeSilva, U.**, Zhang, W., and Sunkar, R. 2009. Cloning, characterization and expression analysis of porcine microRNAs. BMC Genomics 10:65

Davis, R. L., Buck, D. J., Saffarian, N., Mohan, S., Fernando, S. C., **DeSilva, U.** and Stevens, C. W. (2008)  $\beta$ -Funaltrexamine inhibits inducible nitric-oxide synthase expression in human astroglial cells. Journal of Neuroimmunology 203, 150-153

Ross, J. W., Ashworth, M. D., White, F. J., Johnson, G. A., Ayoubi, P. J., **DeSilva, U.**, Whitworth, K. M., Prather, R. S., and Geisert, R. D. (2007) Premature estrogen exposure alters endometrial gene expression to disrupt pregnancy in the pig. Endocrinology 148, 4761-4773.

**DeSilva, U.** and Pillai, A. T. V. Genetic control of fat deposition in cattle. 1-8. 2007. Amarillo, TX, Texas A&M University Agricultural Research and Extension Center. Plains Nutrition Council Spring Conference. 3-29-0007.

Fernando, S. C., Najar, F. Z., Guo, X., Zhou, L., Fu, Y., Geisert, R. D., Roe, B. A., and **DeSilva, U.\*** 2007 Isolation and Characterization of the Porcine Kallikrein Gene Family: Genomic Structure, Radiation-Hybrid Mapping and Differential Expression Analysis. Genomics 89: 429-438

Bommineni, Y.R., Dai, H., Gong, Y. X., Soulages, J. L., Fernando, C. S., **DeSilva, U.**, Prakash, O., and Zhang, G. 2007 Fowlicidin-3 is an alpha-helical cationic host defense peptide with potent antibacterial and lipopolysaccharide-neutralizing activities. *FEBS Journal* 274 (2): 418-428

Geisert, R. D., Ross, J. W., Ashworth, M. D., White, F. J., Johnson, G. A., and **DeSilva, U.** (2006) Maternal recognition of pregnancy signal or endocrine disruptor: the two faces of oestrogen during establishment of pregnancy in the pig. *Soc Reprod Fertil Suppl* 62:131-45.

Ashworth, M.D., Ross, J.W., Hu, J., White, F.J., Stein, D.R., **DeSilva, U.**, Johnson, G.A., Spencer, T.E., and Geisert, R.D. 2006. Expression of porcine endometrial prostaglandin synthase during the estrous cycle and early pregnancy, and following endocrine disruption of pregnancy. *Biol.Reprod.* 74:1007-1015

Fernando, S. C., Ashworth, M.S., Ross, J. W., Geisert, R. D., and **DeSilva, U\***. 2006 Porcine endometrial and conceptus tissue kallikrein 1,4,11 and 14 gene expression. *Reproduction* 132,1-10

Ross, J. W., Smith, T. K., Krehbiel, C. R., Malayer, J. R., **DeSilva, U.**, Morgan, J. B., White, F. J., Hersom, M. J., Horn, G. W., and Geisert, R. D. (2005). Effects of grazing program and subsequent finishing on gene expression in different adipose tissue depots in beef steers. *Journal of Animal Science* 83, 1914-1923.

Vonnahme K. A., Fernando, S. C., Ross, J. A., Ashworth, M. D., **DeSilva, U.**, Malayer, J. R., and Geisert, R. D. 2004 Porcine Endometrial and Conceptus Expression of Kininogens and Plasma Kallikrein in Cyclic and Pregnant Gilts. *Biology of Reproduction* 70, 132-138

Adelson, D. L., Cam, G. R., **DeSilva, U.**, and Franklin, I. R. 2004. Gene Expression in Sheep Skin and Wool (Hair). *Genomics* 83, 95-105

**DeSilva, U\***, Guo, X., Kupfer, D. M., Fernando, S. C., Pillai, A. T. V., Najar, F. Z., So, S., Fitch, G. Q., and Roe, B. A., 2003. Allelic Variants of Ovine Prion Protein Gene (PRNP) in Oklahoma Sheep. *Cytogenetics and Genome Research* 102 (1-4), 89-94.

**DeSilva, U\***, Franklin, I. R., Maddox, J. F., van Hest, B., Adelson, D. L. 2003. Systematic Screening of Sheep cDNA Libraries for Microsatellite Sequences. *Cytogenetics and Genome Research* 102 (1-4), 79-84

Guo, X., Kupfer, D. M., Fitch, G. Q., Roe, B. A., and **DeSilva, U\***. 2003. Identification of a Novel Lysine-171 Allele in the Ovine Prion Protein (PRNP) Gene. *Animal Genetics*. 34, 303-305

**DeSilva, U\***, Elnitski, L., Idol, J. R., Doyle, J. L., Gan, W., Thomas, J. W., Schwartz, S., Dietrich, N. L., Beckstrom-Sternberg, S. M., McDowell, J. C., Blakesly, R. W., Bouffard, G. G., Thomas, P. J., Touchman, J. W., Miller, W., and Green, E. D. 2002. Generation and Comparative Analysis of ~3.3 Mb of Mouse Genomic Sequence Orthologous to the

Region of Human Chromosome 7q11.23 Implicated in Williams Syndrome. *Genome Research*. 12, 3-15

Doyle, J. L., **DeSilva, U.**, Miller, W., Green, E. D., 2000. Divergent human and mouse orthologs of a novel gene (*WBSCR15/Wbscr15*) reside within the genomic interval commonly deleted in Williams syndrome. *Cytogenetics and Cell Genetics*. 90(3-4): 285-290

**DeSilva, U\***, Miller E., Goerlach, A., Foster, C. B., Green, E. D., and Chanock. S. J. 2000. Molecular characterization of the mouse p47-phox (NCF1) gene and comparative analysis of the mouse p47-phox (Ncf1) gene to the human NCF1 gene. *Molecular Cell Biology Research Communications*. 3(4): 224-230.

**DeSilva, U\***, Massa, H., Trask, B. J., and Green, E.D. 1999. Comparative mapping of the region of human chromosome 7 deleted in Williams syndrome. *Genome Research*. 9: 428-436.

**DeSilva, U\***, D'Arcangelo, G., Braden, V. V., Chen, J., Miao, G. G., Curran, T. and Green, E. D. 1997. The Human Reelin Gene: Isolation, Sequencing, and Mapping on Chromosome 7. *Genome Research*. 7: 157-165.

Green, E. D., Maffei, M., Braden, V. V., Proenca, R., **DeSilva, U.**, Zhang, Y., Chua, S. C. Jr., Leibel, R. L., Weissenbach, J. and Friedman, J. M. 1995. The human obese (OB) gene: RNA expression pattern and mapping on the physical, cytogenetic, and genetic maps of chromosome 7. *Genome Research*. 5: 5-12.

Krizman, D. B., Hofmann, T. A., **DeSilva, U.**, Green, E. D., Meltzer, P. S. and Trent J. M. 1995. Identification of 3'-terminal exons from yeast artificial chromosomes. *PCR Methods & Applications*. 4:322-6.

#### **Abstracts:**

Prasad, S., **DeSilva, U.**, Mireless DeWitt, C. Overexpression of Recombinant Sheep Prion Protein (RecShPrPc) using SK-N-SH cells and its detection using Western Blotting. 2009. IFT09 meeting, Anaheim, CA

**DeSilva, U.**, Fernando, S. C., Krehbiel, C. R., Najjar, F. Z., Wiley, G., Macmil, S., Nagaraja, T. G., and Roe, B. A. Community transcriptomics-based meta-functional genomic analysis of rumen microflora. 2008. 6th INRA-RRI Gut Microbiome Symposium, Clermont-Ferrand, France

Stein, D. R., Pillai, A., **DeSilva, U.**, Krehbiel, C.R. Morgan, J.B., Horn, G. W., McCurdy, M.P., Wagner, J. J., Ayoubi, P. and Geisert, R.D. Effects of different winter growing programs and subsequent finishing on gene expression in different adipose tissue depots in beef steers. 2008 ASAS mid-west meetings, Ames, Iowa

Mohan, S., Fernando, S.C., **DeSilva, U.**, Davis, R.L., and Stevens, C.W. 2008. Signaling pathways involved in IL-1 beta-induced regulation of hMOR expression in neurons. *Journal of Neuroimmunology* 203:151

Fernando, S. C., Krehbiel, C. R., Najar, F. Z., Purvis, H. T., Wiley, G., Macmil, S., Nagaraja, T. G., Roe, B. A., and **DeSilva, U.** Meta-Functional Genomics of the Rumen: Towards understanding the complex metabolic pathways in nutrient digestion. 2008. Plant and Animal Genome XVI Conference, San Diego, CA

Fernando, S.C., Purvis, H.T., Najar, F.Z., Wiley, G., Macmil, S., Nagaraja, T.G., Krehbiel,C.R., Roe, B.A., and **DeSilva, U.** Meta-Functional Genomics of the Rumen Biome. 2007 *Journal of Animal Science* 90:569

Thomas, S., Fernando, S.C., **DeSilva, U.** and Mireless DeWitt, C., Production of recombinant sheep prion protein (RecShPrP) and its detection in muscle foods using Western blotting and Immuno-PCR. 2007 IFT Annual Meeting Technical Program Abstracts, Institute of Food Technologists, Chicago, IL. Poster Session: 053-15 Biotechnology

Thomas S, Fernando SC, **DeSilva U**, Mireles DeWitt C. Production of recombinant sheep prion protein (RecShPrP) and its detection in muscle foods using western blotting and immuno – PCR. 2007 FAPC/IFT-OK Research Symposium. Oral presentation # O-2

McLaughlin, B., Burciaga-Robles, L.O., Step, D.L., Krehbiel, C.R., Montelongo, M., Confer, A.W., Fulton, R.W., Richards, C.J., **DeSilva, U.**, and Zhang, G. 2007. Evaluation of a bovine respiratory pathogen exposure model on immune response and short-term performance of finishing cattle. *Journal of Dairy Science* 90:52

Fernando, S.C., Purvis, H.T., Najar, F.Z., Wiley, G., Macmil, S., Nagaraja, T.G., Krehbiel,C.R., Roe, B.A., and **DeSilva, U.** Meta-Functional Genomics of Rumen Microflora. Plant and Animal Genome XV Conference, San Diego, CA 2007.

Purvis H, Fernando, S., Rutz, K., Najar, F., Roe, B., and **DeSilva, U.** Evaluation of Rumen Microbial Fluctuations in Response to Sub Acute Rumen Acidosis Using 16S rDNA Profiles. 2006 *Journal of Animal Science* 84:86

Ross, J.W., Ashworth, D., Stein, D.R., **DeSilva, U.**, Ayoubi, P., Prather, R.S., Whitworth, K.M., Green, J.A., White, F.J., Johnson, G.A., et al. 2006. Alteration of porcine endometrial gene expression associated with conceptus loss following endocrine disruption with exogenous estrogen. *Biology of Reproduction*:108-109

Fernando, S. C., Rutz, K., Purvis, H. T., and **DeSilva, U.** 16s rDNA-based Evaluation of Fluctuations in Rumen Microbial populations in Response to Sub Acute Ruminant Acidosis in Cattle. Plant and Animal Genome XIV Conference, San Diego, CA 2006.

Vasudevan Pillai, A., Guo, X., Kupfer, D. M., Krehbiel, C.R., Wickramasinghe, Y. A. M. S., Ayoubi, P., Roe, B. A. and **DeSilva U.** Differential Expression Analysis of Adipogenesis in Cattle. Plant and Animal Genome XIV Conference, San Diego, CA 2006.

Bodine, T. N., Purvis, H. T., Goad, C. L. and **DeSilva, U.** 16S rDNA-Based Analysis Of Rumen Microbial Diversity In Steers Fed Diets Of Varying Quality. Plant and Animal Genome XIII Conference, San Diego, CA 2005.

Fernando, S. C., Roe, B. A., Geisert, R. D. and **DeSilva, U.** Isolation, Characterization, Mapping And Expression Analysis Of Porcine Tissue Kallikreins. Plant and Animal Genome XIII Conference, San Diego, CA 2005.

Cam, G. R., Adelson, D. L., **DeSilva, U.** and Franklin, I. R. 2003. Functional genomics of wool follicle initiation and development in merino sheep. *Experimental Dermatology* 12: 227.

Smith, T. K., J. W. Ross, C. R. Krehbiel, R. D. Geisert, J. R. Malayer, **U. DeSilva**, J. B. Morgan, F. J. White, and M. D. Ashworth. 2003. Effects of grazing management and subsequent finishing on gene expression in adipose tissue from steers. Plains Nutr. Council Spring Conf. Publ. No. AREC 03-13. p. 118. Texas A&M Research and Extension Center, Amarillo.

Maddox, J. F., Franklin, I. R., Bottema, C. D. K., **DeSilva, U.**, Adelson, D. L., Nattrass, G., Vaiman, D. 2002. An enhanced sheep linkage map comprising more than 220 gene and EST associated markers. 28th Conference of the International Society of Animal Genetics ISAG, August 11-15, 2002, Montpellier, France.

Adelson, D. L., Cam, G. R., **DeSilva, U.** and Franklin, I. R. Gene Expression in Sheep Skin. Plant, Animal and Microbe Genome X Conference, San Diego, CA, February, 2002.

**DeSilva, U.** and Green, E. D. Comparative Mapping and Sequencing the Williams Syndrome region of Human Chromosome 7 and Mouse Chromosome 5. National Human Genome Research Institute, Division of Intramural Research Scientific Retreat, August, 1997.

**DeSilva, U.**, D'Arcangelo, G., Braden, V. V., Curran, T. and Green, E. D. The Human Reelin Gene: Isolation, Sequencing and Mapping on Chromosome 7. National Human Genome Research Institute, Division of Intramural Research Scientific Retreat, September, 1996.

**DeSilva, U.**, D'Arcangelo, G. and Green, E. D. Isolation and Characterization of the Human Homolog of the Mouse Reeler Gene. National Human Genome Research Institute, Division of Intramural Research Scientific Retreat, September, 1995.

Krizman, D., Hoffman, T., **DeSilva, U.** and Green, E. D. Efficient Identification, Cloning, and Sequencing of 3' Terminal Exons from YACs Genome Mapping and Sequencing Conference, Cold Spring Harbor, NY, May, 1994