

Dr. Gemechu Wirtu

Publications:

- 1) Williams A, Crawford L, Tiwari AK, Samuel T, **Wirtu G.**: Lipid metabolism in mammary neoplasia and potential therapeutic targets. *VRI Cell Signaling* 2013, 1:16-21
- 2) **Wirtu G.**, McGill J., Crawford L, Williams A, Reddy G, Bergen WG, Simon L: Targeting lipid metabolism to improve oocyte cryopreservation (OCP) in domestic animals. *Translational Clinical Biology* 2013, 1:15-20
- 3) Pennington, PM., Pope, CE, McLean, RA, Galguis, J, Gentry, LR, Godke, RA and **Wirtu, G.** 2013. Daily or thrice weekly handling of eland antelope (*Taurotragus oryx*): Effects on serum cortisol level. *Research in Veterinary Science* In press, doi:pii: S0034-5288(12)00358-X. 10.1016/j.rvsc.2012.12.006. [Epub ahead of print] PMID:23290948
- 4) Chacon L, Gomez MC, Jenkins JA, Leibo SP, **Wirtu G.**, Dresser BL, et al. Effect of cryopreservation and in vitro culture of bovine fibroblasts on histone acetylation levels and in vitro development of hand-made cloned embryos. *Zygote*. 2011;19(3):255-64. Epub 2010/07/08. doi: 10.1017/S0967199410000316. PubMed PMID: 20604985
- 5) Chacon L, Gomez MC, Jenkins JA, Leibo SP, **Wirtu G.**, Dresser BL, et al. Production of bovine cloned embryos with donor cells frozen at a slow cooling rate in a conventional freezer (-20 degrees C). *Zygote*. 2009;17(4):341-51. Epub 2009/06/09. doi: 10.1017/S0967199409005474. PubMed PMID: 19500443
- 6) Mercado JA, **Wirtu G.**, Beaufreere H, Lydick D. Intraocular pressure in captive black-footed penguins (*Spheniscus demevsus*) measured by rebound tonometry. *Journal of avian medicine and surgery*. 2010;24(2):138-41. Epub 2010/09/02. PubMed PMID: 20806659
- 7) **Wirtu, G.**, Pope, C.E., Paccamonti, D.L., Godke, R.A., Dresser, B.L. (2009). Ultrasonographic-guided retrieval and in vitro maturation of eland (*Taurotragus oryx*) and bongo (*Tragelaphus eurycerus isaaci*) antelope oocytes. *Anim Reprod Sci* 111: 160-172
- 8) Nel-Themaat L, Gómez MC, Pope CE, Lopez M, **Wirtu G.**, Cole A, Dresser BL, Lyons LA, Bondioli KR, Godke RA (2008a) Cloned Embryos from Semen. Part 1: in vitro proliferation of epithelial cells on embryonic fibroblasts after isolation from semen by gradient centrifugation. *Cloning and Stem Cells* 10, 143-160

- 9) Nel-Themaat L, Gómez MC, Pope CE, Lopez M, **Wirtu G.**, Jenkins JA, Cole A, Dresser BL, Bondioli KR, Godke RA (2008b) Cloned Embryos from Semen. Part 2: Intergeneric Nuclear Transfer of Semen-Derived Eland (*Taurotragus oryx*) Epithelial Cells into Bovine Oocytes. *Cloning and Stem Cells* 10, 161-172
- 10) **Wirtu G.**, Pope CE, MacLean RA, Godke RA, Paccamonti DL, Dresser BL (2008) Reversal of motility loss in bongo antelope (*Tragelaphus eurycerus isaaci*) spermatozoa contaminated with hyposmotic urine during electroejaculation. *Animal Reproduction Science* 103, 392-397

Presentations:

- 1) Payton, P. Luyando, J., Samuel, T., **Wirtu, G.** Effect of transportation conditions on the recovery and viability of canine spermatogonial stem cells. 2016 ERN Conference in STEM Washington, DC - February 25-27, 2016
- 2) Luyando, J. Payton, P, Samuel, T., **Wirtu, G.** Recovery, viability and propagation of cells from frozen-thawed reproductive tissues: implications for in situ preservation of stem cells. 16th Annual Biomedical Research Symposium/PhiZeta Research Day, Tuskegee University; Sept 17-18, 2015
- 3) Reid, D. Griffith, A., Gruber, N, Bolden-Tiller, O, **Wirtu, G.** 2015. Inhibitor of acetyl Co-A Carboxylase (ACC) promotes motility in cat epididymal spermatozoa, 2015 Annual Biomedical Research Conference for Minority Students (ABRCMS), Seattle, WA, November 11-14 (Accepted)
- 4) Reid, D, Griffith, A, Gruber, N., Pope, E, **Wirtu, G.** 2015. Cryosurvival and membrane integrity of cat epididymal spermatozoa recovered by slicing or milking, Emerging Researchers National (ERN) Conference in Science, Technology, Engineering and Mathematics, Washington DC, February 19-21
- 5) Griffith, Reid, D, Gruber, N, Tiwari, AK, Pope, CE and **Wirtu, G.** 2014. Comparing Slicing and Milking to Recover Epididymal Spermatozoa in Domestic Cat. 15th Annual Biomedical Research Symposium/PhiZeta Research Day, Tuskegee University, Tuskegee, AL
- 6) Gruber, NM., Tiwari, AK, Sanglard, L, Samuel, T., Bedi, B, **Wirtu, G.** 2014. Acetyl CoA Carboxylase (ACC) inhibitor sensitizes anticancer agents in canine and human mammary neoplasia cells Meril-NIH Symposium, Cornell University 2014
- 7) Sanglard, L, Viswaprakash, N, Okumu, L and **Wirtu, G.** 2015. Relative Content and Distribution of Lipids in Canine and Feline Oocytes 40th Congress of Brazilian on Animal Reproduction, May 27-19, 2015, Bello Horizonte, MG, Brasil
- 8) Buckley T, **Wirtu G.**, Mittal R, Chowdhary R, Vig K, Chen ZS and Tiwari AK. "Enhancing delivery of tyrosine kinase inhibitors in drug resistant tumors"

International Nano-Bio Summit, October 17th-18th, 2013, Alabama State University, AL

- 9) Williams A, Samuel T, **Wirtu, G.**: Expression of Acetyl CoA Carboxylase in Canine Mammary Tumors. In Merial-NIH Symposium, Michigan State University: August 2013
- 10) Crawford, L, Williams A, **Wirtu, G.** 2013. Effect of an inhibitor of Acetyl-CoA Carboxylase (ACC) on the in vitro maturation of feline oocytes. 2013 Annual Biomedical Research Conference for Minority Students (ABRCMS), November 13-16, Nashville, TN
- 11) **Wirtu, G.** Expression of lipogenic genes in canine oocytes, 11th Gulf Coast Conservation Biology Symposium, Audubon Nature Institute, New Orleans, LA, June 7th, 2013
- 12) **Wirtu G.** 2012. The significance and metabolism of fat in mammalian oocytes and embryos. Faculty Seminar Series, College of Veterinary Medicine, Tuskegee University, September 13, 2012
- 13) McGill J, Reddy G, Simon L, Wirtu, G: Effect of acetyl-CoA carboxylase (ACC) inhibitor on nuclear maturation and lipid content of canine oocytes. In Merial-NIH Symposium. Fort Collins, Colorado: Colorado State University; August 2012
- 14) **Wirtu, G.** C.E. Pope, R.A. MacLean, J. Galiguis, D.L. Paccamonti, B. L. Dresser, R.A. Godke. Effect of handling frequency on blood chemistry and hematology parameters of female eland antelope. AZA Annual Conference, Atlanta, GA, September 15-17, 2011
- 15) **Wirtu, G.**, C.E. Pope, R.A. MacLean, J. Galiguis, D.L. Paccamonti, B. L. Dresser, R.A. Godke. Effects of handling frequency on Serum Cortisol level in captive eland antelope 7th Gulf Coast Conservation Biology Symposium, Audubon Nature Institute, New Orleans, LA, June 24th, 2011
- 16) **Wirtu, G.** Development of in vitro-derived bovine embryos in protein-free Media: effects of amino acids, glucose, pyruvate, lactate, phosphate and osmotic pressure. 11th Biomedical Research Symposium. College of Veterinary Medicine, Nursing and Allied Health, Tuskegee University. September 23-24, 2010