

## **CURRICULUM VITAE**

### **NAME**

Hess, Tanja

### **ADDRESS**

Animal Sciences  
College of Agricultural Sciences

### **PHONE**

(970) 491-8612

### **EDUCATION**

2005 Ph D, Virginia Polytechnic Institute and State University

1997 MS, Universidade Federal Rural Do Rio De Janeiro

1990 BS, Universidade Federal Fluminense

### **OTHER POSITIONS**

2010 - Present Visiting professor, Federal Rural University of Rio de Janeiro.

2008 - Present Assistant Professor, Department of Equine Science(Animal Science), Colorado State University.

July 2012 Visiting Scholar, Universidade Estadual Paulista.

2008 - 2010 Collaboration in research, Federal Rural University of Rio de Janeiro; Universidade Federal Rural do Rio de Janeiro.

2006 - 2008 Lecturer/Professor, Animal Science Department and Veterinary Clinics Department of the Federal Rural University of.

2005 - 2007 Clinical Instructor and Veterinarian, Large Animal Veterinary Hospital and the Federal Rural University of Rio de Janeiro, Brazil.

1998 - 2000 Clinical Instructor and Veterinarian, Large Animal Veterinary Hospital and the Federal Rural University of Rio de Janeiro, Brazil.

1990 - 2000 Private Veterinarian Practitioner, Private.

1996 - 1997 Lecturer in Veterinary Clinics, Veterinary Institute from the Federal Rural University of Rio de Janeiro, Brazil.

1991 - 1996 Resident veterinarian, Guaratibe Fram.

### **PUBLISHED WORKS**

#### **Books**

Hess, T. M. (2013). *Prescription diets for horses*. Book outline: Prescription Diets for Horses.

## Refereed Journal Articles

- da Costa Santos, H. F., Hess, T. M., Splan, R., Bruemmer, J. E. Possible role of microRNA in equine insulin resistance. *Plos One*.
- Ross-Jones, T., McIlwraith, W., Kisiday, J. D., Hess, T. M., Hansen, D. K., Black, J. B. (2015). Influence of an n-3 long-chain polyunsaturated fatty acid enriched diet on experimentally induced synovitis in horses. *Journal of Animal Physiology and Animal Nutrition*, 99(4), 1-13.
- Hess, T. M., Ross-Jones (2015). Omega-3 fatty acid supplementation in horses. *Revista Brasileira de Zootecnia*, 203, 4-5. www.sbz.org.br
- Ross-Jones, Hess, T. M., J. (2013). Evaluation of synovial fluid in horses fed twodifferent sources of long chain n-3polyunsaturated fatty acids: a pilot study. *J Equine Vet Science*.
- (2013). Fructokinase,Fructans, Intestinal permeability, metabolicsyndrome:, equine connection? *Equine Vet Sci*, 33, 120-126.
- (2012). Anti-helminthic treatment with the use of previous fecal egg counts at theEquine Center. *J Undergraduate Research and Scholarly excellence*, 5.
- Saad, E., Viscardi, V., Hess, T. M., Silva, E., Lessa, D. (2012). Cytology profile and age effect in the evaluation of equine bronchoalveolar lavage in healthy and asymptomatic inflammatory airway disease. *CienciaRural (ISSN 0103-8478)*, 43(3), 452-455.
- (2012). Dermoid Cyst in Sheep - A Case Report. *Revista Brasileira de Medicina Veterinária [CistoDermóide em Ovino - Relato de Caso]*, 34(2), 127-130.
- (2012). Effects of different dietary sources of Omega-3 highly unsaturated fatty acids on incorporation to the plasma, red blood cell,muscle cell. *J Anim Sci* , doi:10.2527/jas2011-4412, 90, 3023–3031.
- (2012). Effects of Omega 3 fatty acid supplementation on insulin sensitivity in horses. *Journal of Equine Veterinary Science*, 20, 1583-1590.
- (2012). Predicted vs. actualdietary intake levels in a roup of old horses. *Poster presentation 12th Annual AAVN, ClinicalNutrition and Research Symposium*, 20.
- (2011). Insulin sensitivity in stabled working horses fed a diet high in soluble carbohydrates. *Journal of Equine Veterinary Science*, 31, 645-649.
- (2010). Single-injection glucose kinetics with compartmental modeling during rest and low intensity exercise in horses. *Equine Vet J*, 42, 361-369.
- (2010). Use of bovine pericardium for the treatment of equine eventration, a case report. *Revista Eletronica de Medicina Veterinaria da FAEF/ACEG, January, ISSN: 1679-7353*, 8, 9-Jan.
- (2009). Effect of dietary cation anion balance on hematological parameters of eventing horses. *Proceedings XI World Equine Veterinary Association*.
- (2008). Dietary energy source affects glucose kinetics in trained Arabian geldings at rest and during endurance exercise. *J Nutr*, 138, 964-970.
- (2008). Mammary adenocarcinoma in a mare. *Ciencia Rural*, 38(2), 556-560.

- (2008). Potassium-free electrolytes and calcium supplementation in an 80 km endurance ride. *Comp Exerc Physiol*, 5, 33-41.
- (2007). Fat adaptation affects insulin sensitivity and elimination during an 80 km endurance ride. *Pferdeheilkunde*, 23, 241-246.
- (2007). Insulin resistance and compensation in laminitis-predisposed ponies characterized by the Minimal Model. *Pferdeheilkunde*, 23, 237-240.
- (2006). Dietary energy sources, glucose kinetics in trained Arabian geldings during endurance exercise. *Equine Veterinary Journal*, 36, 631-636.
- (2006). Insulin resistance demonstrated by a specific quantitative method in a hyperlipidemic laminitic pony. *Journal of Equine Veterinary Science*, 26, 271-274.
- (2006). Is potassium supplementation beneficial during intense endurance exercise? *Equine Veterinary Journal*, 36, 74-79.
- (2006). Metabolic Syndrome in Healthy Ponies Facilitates Nutritional Countermeasures against Pasture Laminitis. *J Nutr*, 136, 2090-2093S.
- (2006). Periosteal fibrosarcoma in the left maxillary sinus in an equine. *Rev Bras Med Vet*, 28, 156-159.
- (2006). Splenectomy and Stanier WB. Insulin resistance, inheritance and pre-laminitic metabolic syndrome in ponies. *J Am Vet Med Assoc*, 228(10), 1538-1545.
- (2005). Insulin resistance in the horse: definition, detection and dietetics. *J Anim Sci*, 83, 22-31.
- (2005). Insulin sensitivity and pancreatic  $\beta$ -cell response in the horse: screening proxies and reference quintiles assessed by the minimal model. *Am J Vet Res*, 66, 2114-2121.
- (2005). Potassium supplementation affects acid-base status and plasma ion concentrations of horses during endurance exercise. *Am J Vet Res*, 66, 466-473.
- (2005). Vitamin E intake and systemic antioxidant status in competitive endurance horses. *Equine Comp Ex Physiol*, 2(3), 149-152.
- (2004). Antioxidant supplementation, oxidative stress of horses during an 80-km race. *J Animal Sci*, 82, 588-594.
- (2004). Lipoic acid and vitamin E supplementation to horses diminishes endurance exercise induced oxidative stress, muscle enzyme leakage, and apoptosis. *The Elite Racing and Endurance Horse Part 1 Proceedings of the Conference on Equine Sports Medicine and Science*, 105-119.
- (2004). Testing of two glycogen repleting formulas after a treadmill exercise test in endurance horses. *The Elite Racing and Endurance Horse, Part 1, Proceedings of the Conference on Equine Sports Medicine and Science*, 181-185.
- (2003). Oxidative Stress in horses in three 80 km races. *Proceedings of the Eighteenth Equine Nutrition and Physiology Symposium, East Lansing, MI, June 4-7, 18, 47:52:00.*
- (2003). Selective IgA deficiency in endurance horses of Arabian descent. *Proceedings of the Eighteenth Equine Nutrition and Physiology Symposium, East Lansing, MI, June 4-7, 18, 213-214.*
- (2003). Vitamin intake and oxidative stress in endurance horses. *Proceedings of the Eighteenth Equine Nutrition and Physiology Symposium, East Lansing, MI, June 4-7, 18, 134-135.*

- (2002). Lipoic acid as an antioxidant in mature Thoroughbred geldings: a preliminary study. *J Nutr*, 132, 1628S-1631S.
- (2002). Speed associated with plasma pH, oxygen content, total protein and urea in an 80-km endurance race. *Equine Exercise Physiology*, 6, 39-43.
- (2000). Creatin phosphokinase (CK) and aspartate aminotransferase (AST) of horses competing in endurance races. *Arq Fac Vet UFRGS*, 28(1), 70-78.

### **Refereed Chapters in Books**

Hess, T. M. Nutritional diseases in horses. In Reed, S.M.; Bayly, WM; Sellon, D.C. (Ed.), *Equine Internal Medicine* (4TH ed.). St Louis, MO: Sounders Elsevier.

### **Non-Refereed Journal Articles**

- Demme, K., Lapinskas, S., Webster, M., Baker, D. W., Bruemmer, J. E., Hess, T. M. 113 Effects of collection method and season on fecal egg counts in feral horses. *Journal of Equine Veterinary Science*, 35(5), 431. <http://dx.doi.org/10.1016/j.jevs.2015.03.124>
- da Costa Santos, H. F., Mask, T., Splan, R. K., Hess, T. M., Bruemmer, J. E. 34 Differential circulating microRNA profile in insulin-sensitive vs. insulin-resistant mares. *Journal of Equine Veterinary Science*, 35(5), 398. <http://dx.doi.org/10.1016/j.jevs.2015.03.043>
- Hess, T. M. (2015). Amino acid needs in horses. *The Veterinary Journal*, 02. <http://www.elsevier.com/locate/tvj>
- Ross, T. N., Hess, T. M., Rexford, J., Ahrens, N., Engle, T. E., Hansen, D. K. Effects of omega ( $\omega$ )-3 long chain polyunsaturated fatty acid supplementation on equine synovial fluid fatty acid composition and prostaglandin E2. *Journal of Equine Veterinary Science*, 34, 779-783.
- Hess, T. M. (2013). Comparison of insulin sensitivity in thin versus normal horses. *Journal of Equine Veterinary science*.
- (2012). Evaluation of the inflammatory response in experimentally-induced synovitis in the horse: A comparison study of recombinant equine interleukin1 beta and lipopolysaccharide. *Osteoarthritis and Cartilage*, 20, 1583-1590.
- (2005). Comparison of oxidative stress and antioxidant status in endurance horses in three 80 km races. *Equine Comp Ex Physiol*, 2(3), 153-157.

### **Non-Refereed Chapters in Books**

- Hess, T. M., Archibeque, S. L. (in press). Clinical textbook for Veterinary Technicians. *Large Animal Nutrition* (9th ed.). Elsevier.
- (2012). *Plasma activities of angiotensin converting enzyme in Arabian training horses*. Presented at the Annual Conference of Brazilian Equine Practitioners Campinas, SP, Brazil.
- (2011). *Biochemical profile in Thoroughbred colts starting to train*. Presented at the VI Post-Graduation forum at the Federal Rural University of Rio de Janeiro.
- (2011). *Effects of a Feed Supplement Containing Fatty Acids and Chromium on Insulin Sensitivity in Old Mares: A Preliminary Study* (vol. 31, pp. 252). *J Equine Vet Sci*.

- (2010). *Effect of n-3 Polyunsaturated Fatty Acid Supplementation on Circulating Tumor Necrosis Factor Alpha in Horses* (pp. 13). Proc American Academy of Veterinary Nutrition Symposium, Anaheim, CA, June.
- (2010). *Effects of omega 3- fatty acid supplementation on plasma red blood cell, muscle cell fatty acid composition in horse* (Suppl 2 ed., vol. 88, pp. 831). J Anim Sci, presented at the Joint Annual Animal Science Meeting, Denver July.
- (2010). *Effects of omega-3 fatty acid supplementation from different sources on insulin sensitivity in horses* (pp. 31). Proc American Academy of Veterinary Nutrition Symposium, Anaheim, CA, June.
- (2010). *Fatty acid composition of synovial fluid in horses fed long chain polyunsaturated fatty acids: a pilot study* (E-Suppl 2 ed., vol. 88, pp. 761). J Anim Sci (Abstr).
- (2010). *Insulin sensitivity in stabled working horses fed a diet high in soluble carbohydrates*. Accepted for poster presentation at the 8th International Conference on Equine Exercise Physiology.
- (2009). *Comparison of insulin sensitivity in thin versus normal horses* (vol. 100, pp. 115). Revista do CRMV-MG (Official magazine of the Regional Veterinary and Animal Science Council), Anais do IV SINCAV (International Symposium of the Equine Athlete), Belo Horizonte - MG.
- (2009). *Comparison of plasma biochemical parameters in exhausted and non exhausted horses participating in 1000 to 2000 m races* (vol. 29, pp. 302-303). J Equine Vet Sci.
- (2009). *Effects of dietary cation anion balance on acid base status in eventing horses* (vol. 100, pp. 78). Revista do CRMV-MG, Anais do IV SINCAV.
- (2009). *Effects of dietary cation anion balance on physiologic parameters in eventing horses* (vol. 100, pp. 84-86). Revista do CRMV-MG, Anais do IV SINCAV.
- (2009). *Effects of potassium free, potassium rich electrolytes on dietary cation-anion balance, on plasma electrolytes, acid-base balance in eventing horses* (vol. 26, pp. 366-367). J Equine Vet Sci.
- (2009). *Effects of the acid base balance on plasma electrolytes in eventing horses* (pp. 38). 46 Reunião Anual da Sociedade Brasileira de Zootecnia, Maringá Anais da 46 Reunião Annual da Sociedade Brasileira de Zootecnia Maringá: SBZ.
- (2009). *Effects of the cation anion balance on plasma pH in eventing horses* (vol. 1). II Simpósio de Equideocultura, Viçosa Anais do II Simpósio de Equideocultura Viçosa: Editora Universitária.
- (2009). *Effects of the cation anion balance on physiological parameters and plasma lactate in eventing horses* (vol. 100, pp. 75-77). IV Simpósio Internacional do Cavalista (International Symposium of the Equine Athlete), - Revista Veterinária e Zootecnia de Minas Belo Horizonte: CRMV-MG.
- (2009). *Effects of the cation-anion balance on calcium homeostasis in eventing horses* (vol. 1). II Simpósio de Equideocultura, 2009, Viçosa Anais do II Simpósio de Equideocultura Viçosa: Editora Universitária.
- (2007). *Potassium-free electrolytes affect plasma calcium during endurance exercise*. Proceedings of the 20th Symposium of the Equine Science Society, Hunt Valley, MD.
- Hess, T. M. (2007). *Fat adaptation affects insulin sensitivity, elimination during an 80 km endurance ride* (vol. 82, pp. 588-594). Abstracts of the European Nutrition Conference in Germany in October.
- (2006). *Glucose kinetics in trained Arabian geldings: effects of dietary energy source, endurance exercise* (pp. 7). Proceedings of the American Academy of Veterinary Nutrition (AAVN) 6th Clinical Nutrition Research

## Symposium.

- (2006). *Pre-Laminitic Metabolic Syndrome: application to Connemara ponies* (pp. 17). Proceedings of the American Academy of Veterinary Nutrition (AAVN) 6th Clinical Nutrition Research Symposium.
- (2005). *Dietary energy sources affect insulin sensitivity and  $\beta$ -cell responsiveness of trained Arabian geldings during endurance exercise* (vol. 89, pp. 429). J Anim Nutr Physiol.
- (2005). *Effects of glucose polymer with and without potassium and different diets on glycogen repletion after a treadmill exercise test in endurance horses* (vol. 89, pp. 429-430). J Anim Nutr Physiol.
- (2005). *Genetic pre-disposition for laminitis in ponies* (pp. 219-220). In Proc 19th Conf Equine Sci Soc, Tucson, AZ, June.
- (2005). *Laminitic metabolic profile in genetically predisposed ponies involves exaggerated compensated insulin resistance* (vol. 89, pp. 431). J Anim Nutr Physiol.
- (2005). *Pre-laminitic metabolic syndrome in genetically predisposed ponies involves compensated insulin resistance* (vol. 89, pp. 430). J Anim Nutr Physiol.
- (2005). *Thyroid Function during athletic conditioning and acute exercise in Arabians fed different sources of dietary energy* (vol. 19, pp. 117-118). Proceedings of the 19th Symposium of The Equine Science Society Tucson, AZ, USA.
- (2004). *Potassium supplementation affects plasma [K<sup>+</sup>] during an 80 km endurance exercise test on the treadmill* (suppl 1 ed., vol. 82, pp. 97). J Anim Sci.
- (2003). *Potassium-free electrolytes and calcium supplementation in an endurance race* (vol. 18, pp. 148-149). Proceedings of the Eighteenth Equine Nutrition and Physiology Symposium, East Lansing, MI, June 4-7.
- (2002). *Antioxidant supplementation, oxidative stress in horses during a competitive endurance ride*. Proceedings of the AAVN Clinical Nutrition, Research Symposium, Dallas, TX.
- (2002). *Dietary grain and endurance exercise*. Proceedings of the Joint Meeting, Quebec City, CA, Journal of Dairy Science, 85(1), Journal of Animal Science, 80(1), 171.
- (2002). *Endurance exercise: is potassium supplementation beneficial?*. Proceedings of the AAVN Clinical Nutrition, Research Symposium, Dallas, TX.
- (2002). *Endurance exercise: is potassium supplementation necessary?*. Proceedings of the 2002 Joint Meeting, Quebec City, CA, Journal of Dairy Science, 85(1); Journal of Animal Science, 80(1):172.
- (2002). *Oxidative stress and antioxidant supplementation in horses during a competitive endurance ride*. Proceedings of the Joint Meeting, Quebec City, CA, Journal of Dairy Science, 85(1), Journal of Animal Science, 80(1), 171.
- (1997). *Plasma Creatinkinase and Aspartateaminotransferase in horses before and after endurance races*. Presented at the VIII Biannual Research Presentation of the Federal Rural University of Rio de Janeiro, Serpedica, RJ In: Anais do VIII Seminario Bienal de Pesquisa, vVII.
- (1995). *Clinical and surgical evaluation of a case of Phycomycosis (Pytium insidiosum) in a horse*. Presented at the VII Biannual Research Presentation of the Federal Rural University of Rio de Janeiro, RJ In; Anais do VII Seminario Bienal de Pesquisa, vVII.

## Abstract

- H. F., Mask, T., Hess, T. M., Bruemmer, J. E. (2015). *Differential circulating microRNA profile in insulin-sensitive vs. insulin-resistant mares* (vol. 35, pp. 398). Journal of Equine Veterinary Science.
- Jacobs, R. D., Ealy, A. D., Pennington, P. M., Pukazhenthil, B., Warren, L. K., Wagner, A. L., Johnson, A. K., Hess, T. M., Splan, R. K. (2015). *Effect of dietary omega-3 supplementation on equine endometrial and embryonic gene expression* (vol. 35, pp. 438). Journal of Equine Veterinary Science.
- Demme, K., Lapinskas, S., Webster, M., Hess, T. M., Bruemmer, J. E. (2015). *Effects of collection method and season on fecal egg counts in feral horses* (vol. 35, pp. 431). Journal of Equine Veterinary Science.
- Wilkins, C., Hess, T. M., da Costa Santos, H. (2015). *Feeding free-choice hay to starving horses* (vol. 35, pp. 417). Journal of Equine Veterinary Science.
- Lapinskas, S., Rayner, J., Jacobs, R., Wooley, C., Splan, R., Hess, T. M. (2015). *Seasonal effects on pasture and a group of mares with metabolic syndrome* (vol. 35, pp. 384). Journal of Equine Veterinary Science.

### **Book Review**

- (2012). *Large Animal Nutrition Chapter*. Rewrite of Chapter for the 8th edition of McCurnin's Clinical Textbook for Veterinary Technicians, in press..
- (2010). *Chapter on nutrient metabolism of nonruminants in rangeland systems*. Encyclopedia of Life Support Systems, Proofreading delivered, Published on <http://www.eolss.net/http://www.eolss.net/outlinecomponents/Range-Animal-Sciences-Resources-Management.aspx>.

### **PAPERS PRESENTED/SYMPOSIA/INVITED LECTURES/PROFESSIONAL MEETINGS/WORKSHOPS**

- November 12, 2014, "Effects of omega-3 fatty acid supplementation in horses", Symposium on Research in Veterinary Medicine, Universidade Federal de Vicosa, MG, Brazil, (Presenter) Hess, T., Universidade Federal de Vicosa, Vicosa, MG, Brazil.
- November 11, 2014, "Equine Metabolic syndrome (course) and effects of omega 3 fatty acid supplementation in horses", Equine Annual Symposium, Federal University of Vicosa, (Presenter) Hess, T. M., Vicosa, MG, Brazil.
- August 1, 2014, "Supplementation of omega 3 fatty acids to horses", 51st Annual Meeting of the Brazilian Animal Science Society, Barra dos Coqueiros, SE Brazil, peer-reviewed/refereed.
- July 30, 2014, "Effects of omega-3 fatty acid supplementation in horses", Brazilian Annual Conference of Animal Science, Brazilian Annual Conference of Animal Science, (Presenter) Hess, T. M., Aracaju, SE, Brazil.
- 2013, "Omega 3 supplementation in horses", peer-reviewed/refereed.
- May 20, 2013, "Hess, T., Johnson, R.J., Silva AMBG, Mello, E.B.F.R.B., Lanasa, M.A., Neto, J.C.L., Rivard, C. Pilot study: fructose transporter in intestinal and hepatic cells of an equine given oligofructose overload. J. Equine Vet. Sci, 2013. 33:330.", Equine Science Society Meeting, Ruidose, peer-reviewed/refereed.
- 2010, "Rexford JK, Hess TM, Schaueremann N, Engle T, Hansen K, Allen KD, Mulligan CM. Effects of omega 3-fatty acid supplementation on plasma red blood cell and muscle cell fatty acid composition in horses. J An Sci,

88, suppl.2: 831, presented at the Joint Annual Animal Science Meeting, Denver July 2010.", peer-reviewed/refereed.

2010, "Rexford JK, Hess TM, Schaueremann N, Engle T, Hansen K, Allen KD, Mulligan CM. Effects of omega-3 fatty acid supplementation from different sources on insulin sensitivity in horses. Proc 2010 American Academy of Veterinary Nutrition Symposium, Anaheim, CA, June 2010, p 31.", peer-reviewed/refereed.

2010, "Ross T, Hess TM, Kisiday J, McIlwraith C, Hansen D, Engle T, Schaueremann N, Rexford J, Mulligan C. Fatty acid composition of synovial fluid in horses fed long chain polyunsaturated fatty acids: a pilot study. Meeting of joint Animal Science Society J Anim Sci 88(E-Suppl 2):761 (Abstr.)", peer-reviewed/refereed.

2010, "Schaueremann N, Hess TM, Rexford J, Han H, Hussey G, Engle T. Effect of n-3 Polyunsaturated Fatty Acid Supplementation on Circulating Tumor Necrosis Factor Alpha in Horses. Proc 2010 American Academy of Veterinary Nutrition Symposium, Anaheim, CA, Poster", peer-reviewed/refereed.

2009, "Mello EBFRB, Hess TM, Treiber KH, Turner S, Souza BG, Stelmann UJP, Silva AMGB, Almeida FQ. Comparison of insulin sensitivity in thin versus normal horses. Revista do CRMV-MG (Official magazine of the Regional Veterinary and Animal Science Council), Anais do IV SINCAV (International Symposium of the Equine Athlete), 2009, Belo Horizonte - MG.", peer-reviewed/refereed.

2009, "Santiago JM, Almeida FQ, Hess TM, Souza, BG, Silva, LLF, Guimarães A. Effects of the acid base balance on plasma electrolytes in eventing horses. In: 46 Reunião Anual da Sociedade Brasileira de Zootecnia, 2009, Maringá. Anais da 46 Reunião Anual da Sociedade Brasileira de Zootecnia. Maringá: SBZ, 2009. v.38.", peer-reviewed/refereed.

2009, "Santiago JM, Souza BG, Silva LLF, Carrilho SS, Hess TM, Almeida FQ. Effects of the cation anion balance on plasma pH in eventing horses. In: II Simpósio de Equideocultura, 2009,

Viçosa. Anais do II Simpósio de Equideocultura. Viçosa: Editora Universitária, 2009. v.1.", peer-reviewed/refereed.

2009, "Santiago JM, SOUZA, Silva BG, Miranda LLF, Hess TM, Almeida FQ. Effects of the cation-anion balance on calcium homeostasis in eventing horses In: II Simpósio de Equideocultura, 2009, Viçosa. Anais do II Simpósio de Equideocultura. Viçosa: Editora Universitária, 2009. v.1.", peer-reviewed/refereed.

2009, "Seppa GS, Hess TM, Kowal RJ, Santos OJ. Comparison of plasma biochemical parameters in exhausted and non exhausted horses participating in 1000 to 2000 m races. Equine Science Society Symposium.Keystone, USA 2009. J Equine Vet Sci 29:302-303.", peer-reviewed/refereed.

2009, "Silva LL. Souza F, Santiago BG, Oliveira JM, Carrilho SS, Hess TM, Almeida FQ. Effects of the cation anion balance on physiological parameters and plasma lactate in eventing horses In: IV Simpósio Internacional do Cavalo Atleta, 2009, Belo Horizonte. IV Simpósio Internacional do Cavalo Atleta (International Symposium of the Equine Athlete), - Revista Veterinária e Zootecnia de Minas. Belo Horizonte: CRMV-MG, 2009. v.100. p.75 - 77".

2009, "Silva LLF, Souza BG, Santiago JM, Oliveira GF, Carrilho SS, Chaves JP, Hess TM, Almeida FQ. Effects of dietary cation anion balance on physiologic parameters in eventing horses. 2009. Revista do CRMV-MG, Anais do IV SINCAV,International Symposium of Equine Athlete, Belo Horizonte, MG, Brazil.", peer-reviewed/refereed.

2009, "Souza BG, Almeida FQ, Hess TM, Santiago JM, Silva LLF, LG. Effect of dietary cation anion balance on hematological parameters of eventing horses. XI World Equine Veterinary Association. Brazil.", peer-reviewed/refereed.

2009, "Souza BG, Hess TM, Almeida FQ, Mello EBFRB, Oliveira GF, Chaves JP, Veiga CP. Effects of potassium free and potassium rich electrolytes on dietary cation-anion balance and on plasma electrolytes and acid-base balance in

eventing horses. Equine Science Society Symposium, Keystone, CO,2009", peer-reviewed/refereed.

2009, "Souza BG, Hess TM, Almeida FQ, Oliveira GF, Santiago JM, Silva LLF, Pinto LG, Carrilho SS. Effects of dietary cation anion balance on acid base status in eventing horses. 2009. Revista do CRMV-MG, Anais do IV SINCAV, International Symposium of the Equine Athlete, Belo Horizonte, MG, Brazil", peer-reviewed/refereed.

2008, "Speaker at the Colorado Nutrition Roundtable, Omega 3 Fatty acid supplementation in horses, Fort Collins, CO 09-18-2008."

2007, "Hess TM, Waldron JE, Treiber KH, Carter RA, Smith TL, Gay L, Sleeper M, Harris PA, and Kronfeld DS Potassium-free electrolytes affect plasma calcium during endurance exercise. In: Proceedings of the 20th Symposium of the Equine Science Society, Hunt Valley, MD, 2007.", peer-reviewed/refereed.

2007, "Hess TM, Waldron JE, Treiber KH, Carter RA, Smith TL, Gay L, Sleeper M, Harris PA, and Kronfeld DS Potassium-free electrolytes affect plasma calcium during endurance exercise. In: Proceedings of the 20th Symposium of the Equine Science Society, Hunt Valley, MD, 2007.", peer-reviewed/refereed.

2006, "Carter RA, Treiber KH, Hess TM, Kronfeld DS, Geor RJ. Pre-Laminitic Metabolic Syndrome: application to Connemara ponies. In: Proceedings of the American Academy of Veterinary Nutrition (AAVN) 6th Clinical Nutrition Research Symposium,Luisville, KY, 2006.", peer-reviewed/refereed.

2006, "Treiber KH, Hess TM, Kronfeld DS, Geor RJ, Harris PA. Glucose kinetics in trained Arabian geldings: effects of dietary energy source and endurance exercise. In: Proceedings of the American Academy of Veterinary Nutrition (AAVN) 6th Clinical Nutrition Research Symposium, Luisville, KY.", peer-reviewed/refereed.

2005, "Hess TM, Kronfeld DS, Crandell KE, Waldron JN, Treiber KH, Staniar WB, and Harris PA. Fat adaptation affects

insulin sensitivity and elimination  
during an 80 km endurance ride.  
Abstracts of the European Nutrition  
Conference in Hannover, Germany in 2005.", peer-reviewed/refereed.

**OTHER ACTIVITIES/ACCOMPLISHMENTS – PUBLICATIONS/SCHOLARLY RECORD**

(2008). Academic Veterinarian.

**TEACHING:**

<b><u>Year</u></b>	<b><u>Semester</u></b>	<b><u>Course No./Title</u></b>	<b><u>Cr. Hrs.</u></b>	<b><u>Enrollment</u></b>
2016	Summer	ANEQ345 - Principles of Nutrition: Equine Applications	3	4
2016	Spring	ANEQ799 - Dissertation	18	11
2016	Spring	ANEQ325 - Equine Exercise Physiology	2	22
2016	Spring	ANEQ203 - Equine Management	2	29
2016	Spring	ANEQ203 - Equine Management - Lab	0	14
2016	Spring	ANEQ203 - Equine Management -Lab	0	15
2016	Spring	ANEQ345 - Principles of Nutrition: Equine Applications	3	59
2016	Spring	ANEQ784 - Supervised College Teaching	18	31
2015	Fall	ANEQ346 - Equine Disease Management	4	76
2015	Fall	ANEQ346 - Equine Disease Management - Lab	0	33
2015	Fall	ANEQ346 - Equine Disease Management - Lab	0	43
2015	Fall	ANEQ495 - Independent Study	18	15
2015	Fall	ANEQ384 - Supervised College Teaching	5	27
2015	Fall	ANEQ784 - Supervised College Teaching	18	29
2015	Summer	ANEQ587 - Internship	9	1
2015	Summer	ANEQ487B - Internship: Equine	6	43
2015	Spring	ANEQ325 - Equine Exercise Physiology	2	25
2015	Spring	ANEQ203 - Equine Management	2	28
2015	Spring	ANEQ203 - Equine Management - Lab	0	14
2015	Spring	ANEQ203 - Equine Management -Lab	0	14
2015	Spring	ANEQ795 - Independent Study	18	1
2015	Spring	ANEQ345 - Principles of Nutrition: Equine Applications	3	82
2015	Spring	ANEQ784 - Supervised College Teaching	18	28
2014	Fall	ANEQ346 - Equine Disease Management	4	93
2014	Fall	ANEQ346 - Equine Disease Management - Lab	0	46
2014	Fall	ANEQ346 - Equine Disease Management - Lab	0	47
2014	Fall	ANEQ384 - Supervised College Teaching	5	26
2014	Fall	ANEQ784 - Supervised College Teaching	18	27
2014	Spring	ANEQ325 - Equine Exercise Physiology	2	22
2014	Spring	ANEQ203 - Equine Management	2	29
2014	Spring	ANEQ203 - Equine Management - Lab	0	14
2014	Spring	ANEQ203 - Equine Management -Lab	0	15
2014	Spring	ANEQ487B - Internship: Equine	6	39
2014	Spring	ANEQ345 - Principles of Equine Nutrition	3	97
2014	Spring	ANEQ345 - Principles of Nutrition: Equine Applications	3	98
2014	Spring	ANEQ384 - Supervised College Teaching	5	32
2013	Fall	ANEQ346 - Equine Disease Management	4	89
2013	Fall	ANEQ346 - Equine Disease Management - Lab	0	44
2013	Fall	ANEQ346 - Equine Disease Management - Lab	0	45
2013	Fall	ANEQ495 - Independent Study	18	5
2013	Fall	ANEQ487B - Internship: Equine	6	14
2013	Fall	ANEQ384 - Supervised College Teaching	5	23
2013	Summer	ANEQ487 - Internship	18	32

2013	Spring	ANEQ325 - Equine Exercise Physiology	2	26
2013	Spring	ANEQ203 - Equine Management	2	24
2013	Spring	ANEQ203 - Equine Management - Lab	0	12
2013	Spring	ANEQ203 - Equine Management -Lab	0	12
2013	Spring	ANEQ487 - Internship	18	29
2013	Spring	ANEQ102 - Introduction to Equine Science	4	95
2013	Spring	ANEQ102 - Introduction to Equine Science - Lab	0	31
2013	Spring	ANEQ102 - Introduction to Equine Science - Lab	0	35
2013	Spring	ANEQ102 - Introduction to Equine Science - Lab	0	29
2013	Spring	ANEQ345 - Principles of Nutrition: Equine Applications	3	66
2013	Spring	ANEQ384 - Supervised College Teaching	5	24
2012	Fall	ANEQ346 - Equine Disease Management	4	86
2012	Fall	ANEQ346 - Equine Disease Management - Lab	0	43
2012	Fall	ANEQ346 - Equine Disease Management - Lab	0	43
2012	Fall	ANEQ784 - Supervised College Teaching	18	21
2012	Fall	VM781A1 - Veterinary Sports Medicine and Rehabilitation	1	29
2012	Spring	ANEQ325 - Equine Exercise Physiology	2	23
2012	Spring	ANEQ203 - Equine Management	2	30
2012	Spring	ANEQ203 - Equine Management - Lab	0	15
2012	Spring	ANEQ203 - Equine Management -Lab	0	15
2012	Spring	ANEQ487 - Internship	18	33
2012	Spring	ANEQ384 - Supervised College Teaching	5	28
2011	Fall	ANEQ346 - Equine Disease Management	4	68
2011	Fall	ANEQ346 - Equine Disease Management - Lab	0	25
2011	Fall	ANEQ346 - Equine Disease Management - Lab	0	43
2011	Fall	ANEQ384 - Supervised College Teaching	5	31
2011	Fall	ANEQ784 - Supervised College Teaching	18	22
2011	Fall	VM781A1 - Veterinary Sports Medicine and Rehabilitation	1	12
2011	Spring	ANEQ381A2 - Equine Exercise Physiology	2	23
2011	Spring	ANEQ203 - Equine Management	2	42
2011	Spring	ANEQ203 - Equine Management - Lab	0	14
2011	Spring	ANEQ203 - Equine Management - Lab	0	14
2011	Spring	ANEQ203 - Equine Management -Lab	0	14
2011	Spring	VM763 - Equine Medicine and Surgery	5	55
2011	Spring	ANEQ495 - Independent Study	18	25
2011	Spring	ANEQ487 - Internship	18	16
2011	Spring	ANEQ487 - Internship	18	31
2011	Spring	ANEQ384 - Supervised College Teaching	5	18
2010	Fall	VS650 - Comparative Abdominal Surgery	3	10
2010	Fall	ANEQ346 - Equine Disease Management	3	76
2010	Fall	ANEQ495 - Independent Study	18	11
2010	Spring	ANEQ381A2 - Equine Exercise Physiology	2	26
2010	Spring	VM763 - Equine Medicine and Surgery	5	62
2010	Spring	ANEQ345 - Principles of Nutrition: Equine Applications	3	48
2010	Spring	ANEQ784 - Supervised College Teaching	18	23
2010	Spring	ANEQ699 - Thesis	18	15
2009	Fall	ANEQ346 - Equine Disease Management	3	87
2009	Fall	ANEQ784 - Supervised College Teaching	18	21
2009	Fall	ANEQ699 - Thesis	18	16
2009	Spring	ANEQ203 - Equine Management	2	27
2009	Spring	VM763 - Equine Medicine and Surgery	5	41
2009	Spring	ANEQ487 - Internship	18	24
2009	Spring	ANEQ699 - Thesis	18	14
2008	Fall	ANEQ346 - Equine Disease Management	3	67
2008	Spring	VM763 - Equine Medicine and Surgery	5	52

## Guest Lectures:

<u>Year</u>	<u>Semester</u>	<u>Course No./Title</u>	<u># of Guest Lectures</u>	<u>Delivery Mode</u>
2015	Fall	ANEQ102 - Introduction to Equine Science	06	Face to Face
2014	Fall	Equine metabolic Disease shortcourse	8	Face to Face
2014	Fall	ANEQ102 - Introduction to Equine Science	6	Face to Face
2014	Summer	IV1341 - Equine Exercise Physiology	36	Face to Face
2013	Fall	ANEQ102 - Introduction to Equine Science	4	Face to Face
2013	Spring	ANEQ102 - Introduction to Equine Science	6	Face to Face

## EXTENSION/ENGAGEMENT ACTIVITIES/ACCOMPLISHMENTS

### Phone Call

Nutrition consulting. Adult, Fort Collins, CO. Number of times program was made: 30. Total number of participants: 25. Percent Responsible: 100%. Full Year 2015.

### Presentation

Nutrition in horses. Adult, Fort Collins, CO. Number of times program was made: 01. Total number of participants: 60. Percent Responsible: 100%. 1st Quarter 2016.

Effecyts of Omega 3 fatty acid supplementation in horses. Mid-Atlantic Nutrition Conference, Timonium, MD, MD. Number of times program was made: 8. Total number of participants: 200. Percent Responsible: 10%. 2012.

Equine gut health. Johnstown, CO. Number of times program was made: 5. Total number of participants: 20. Percent Responsible: 30%. 2012.

### Took students to help during an endurance race

Pulse respiration and help during endurance race. Adult, Red Feather Lakes, CO. Number of times program was made: 01. Total number of participants: 80. Percent Responsible: 20%. 3rd Quarter 2015.

### committee member chair in the Exercise Physiology section

Chair of the Exercise Physiology Section of the Equine Science Society symposium. Adult, St. Pete beach, Florida. Number of times program was made: 20. Total number of participants: 400. Percent Responsible: 100%. 2nd Quarter 2015.

## COMMITTEES

Committee on University programs, (August 10, 2015 - Present).

Graduate committee, (February 16, 2016 - Present).

Department Grade appeal committee, Animal Sciences.

Selection committee for faculty position, (November 2014 - Present).

## PROFESSIONAL AFFILIATIONS AND ACTIVITIES

American Academy of Veterinary Nutritionists. (2002 - Present).

American Endurance Ride Conference Veterinarian. (2001 - Present).

Equine Nutrition and Physiology Society. (2001 - Present).

Equiestrian Federation Credentialed veterinarian. (1993 - Present).

Committee Chair, Equine Science Society. (August 2014 - Present).

American Journal Of Veterinary Research. (2012 - Present).

Journal of Animal Science. (2012 - Present).

Reviewer, Ad Hoc Reviewer, NSF. (2012 - Present).

Equine Science Society, Mufresboro, TN. (2011 - Present).

National Association of Equine Affiliated Academics, Mufresboro, TN. (2011 - Present).

Journal of Equine Veterinary Science. (2010 - Present).

Member, American Academy of Veterinary Nutritionists. (2002 - Present).

Member, American Endurance Ride Conference Veterinarian. (2001 - Present).

Member, Equine Nutrition and Physiology Society. (2001 - Present).

Equiestrian Federation Credentialed veterinarian. (1993 - Present).

Reviewer, Journal Article, Journal of Equine Veterinary Science. (December 1, 2015 - December 15, 2015).

Reviewer, Journal Article, Revista Brasileira de Zootecnia. (December 1, 2015 - December 15, 2015).

Reviewer, Journal Article, Journal of Applied research. (November 15, 2015 - November 30, 2015).

Reviewer, Journal Article, Journal of Animal Science. (November 1, 2015 - November 15, 2015).

Reviewer, Journal Article, Journal of Equine Veterinary Science. (October 1, 2015 - October 15, 2015).

Reviewer, Journal Article, Libertas Academica. (September 1, 2015 - September 15, 2015).

Reviewer, Journal Article, Journal of Equine Veterinary Science. (July 7, 2015 - July 15, 2015).

Reviewer, Journal Article, The veterinary Journal. (March 15, 2015 - May 24, 2015).

Journal of Equine Veterinary Science. (April 1, 2015 - April 15, 2015).

Reviewer, Journal Article, Journal of Animal Science. (February 1, 2015 - February 15, 2015).

Reviewer, Journal Article, Marine Drugs. (December 16, 2014).

Reviewer, Journal Article, Journal of Animal Science. (November 6, 2014).

Reviewer, Journal Article, The Veterinary Journal. (July 22, 2014).

Reviewer, Journal Article, Veterinary Record. (June 30, 2014).

Task Force Member, Virginia Polytechnic Institute and Steate University, Several towns in Germany, Austria, France. (May 25, 2014 - June 7, 2014).

Reviewer, Journal Article, Journal of Equine Veterinary Science. (April 16, 2014).

Reviewer, Conference Paper, Equine Science Society. (2013).

Reviewer, Conference Paper, Equine Society Science Meeting Equine Exercise Physiology review board. (2011).

Equine Science Society Meeting. (December 2010).

TILT, Fort Collins, CO. (2009).

**OTHER ACTIVITIES/ACCOMPLISHMENTS – SERVICE/OUTREACH**

Academic, Equine Science Society, United States. (September 1, 2014 - Present).

Non-Governmental Organization (NGO), Equus. (June 13, 2013 - Present).

Academic, Research project Brittany Davies, United States. (December 2014).

Academic, CSU ERL, United States. (January 2014 - December 2014).

different phone calls on nutrition, Different owners nutrition calls, United States. (January 2014 - December 2014).

Magazine Dressage Today, Magazine Dressage Today, United States. (August 5, 2014).

Academic, Equine Sciences, Akron, CO, United States. (January 10, 2013 - December 20, 2013).

Nutrition consulting. (January 10, 2013 - December 20, 2013).

Government, District Court Washington County, Colorado. (July 20, 2013 - November 7, 2013).

Equine Science consulting. (2012).

Ration balancing and consulting. (2012).

Equine Science horses consulting. (2011).

rations balancing consulting. (2011).

Consulting call on toxicity. (2010).

Consulting nutrition and diseases. (2010).

Ration balancing consulting. (2010).

Veterinary consulting to the Equine Teaching and learning center horses. (2010).

\*\*\*\*\*