

Ann M. Hess

Department of Statistics
Colorado State University
Fort Collins, CO 80523
(970) 491-5077
Ann.Hess@ColoState.edu

Education

Ph.D. in Statistics, Colorado State University, Fort Collins, CO, 2005

M.S. in Statistics, Colorado State University, Fort Collins, CO, 2001

B.S. in Math and Physics, University of Hartford, West Hartford, CT, 1998

Academic Experience

Special Appointment Associate Professor, July 2014 – Present
Department of Statistics, Colorado State University

Special Appointment Assistant Professor, July 2006 – June 2014
Department of Statistics, Colorado State University

Special Appointment Assistant Professor, July 2006 – December 2010
Department of Statistics and Center for Bioinformatics, Colorado State University

Post Doctoral Bioinformatics Consultant, August 2005 - June 2006
Department of Statistics, Colorado State University

Courses Taught

STAT 101: Activity Based Statistics

STAT 110: Statistical Thinking: Concepts and Applications

STAT 201: General Statistics

STAT 307: Introduction to Biostatistics

STAT 315: Statistics for Engineers and Scientists

STAT 511: Design and Data Analysis for Researchers I

STAT 512: Design and Data Analysis for Researchers II

STAT 580: Design and Data Analysis for Bioinformatics

Consulting

2014: 320 hours of consulting for 175 individuals from more than 35 departments
2013: 275 hours of consulting for 140 individuals from more than 30 departments.
2012: 190 hours of consulting for 119 individuals from 30 departments.

As a note, these hours include in-person and phone meetings, but do not account for additional time spent working on projects and responding to email questions.

Graduate Committees and Advising

Current Graduate Committees: 1 M.S., 9 Ph.D.
Completed Graduate Committees: 9 M.S., 3 Ph.D.

Other Service

Institutional Animal Care and Use Committee (IACUC)

Publications

A. Loughridge, A. Hess, T. Parkin, C. Kawcak, “Computed tomography reveals higher bone density at the distal articular surface in racehorses with third metacarpal fractures compared to horses without fracture” submitted to Equine Veterinary Journal on 2/18/15.

K.M. Klohonatz, **A.M. Hess**, T.R. Hansen, E.L. Squires, G.J. Bouma, J.E. Bruemmer, “Equine endometrial gene expression changes during and after maternal recognition of pregnancy”, 2015, Journal of Animal Science.

C.R. Molins, L.V. Ashton, G.P. Wormser, **A.M. Hess**, M.J. Delorey, S. Mahapatra, M.E. Schriefer, J.T. Belisle, "Development of a Biosignature for Detection of Early Lyme Disease", 2015, Clinical Infectious Diseases: civ185.

D.M. Fletcher, M.B. Vogt, A.B. Genis, S.K. Meyer, H.E. Pirner, M.M. Hayes, **A.M. Hess**, R.A. Bowen, and Torsten M. Eckstein, “Silent Phase of Johne’s Disease in Experimentally Infected Goats – A Study on New and Established Diagnostic Approaches using Specific and Non-specific Parameters”, 2015, Journal of Veterinary Science, 1(2).

E. Edmondson, **A. Hess**, B. Powers. “Prognostic significance of histologic features in canine renal cell carcinomas: 70 nephrectomies”, 2015, Veterinary Pathology, 52(2), 260-268.

K.M. Jeckel, G.J. Bouma, **A.M. Hess**, E.B. Petrilli, M.A. Frye, “Dietary fatty acids alter left ventricular myocardial gene expression in Wistar rats”, 2014, Nutrition Research, 34: 694-706.

S. Mahapatra, **A.M. Hess**, J.L. Johnson, K.D. Eisenach, M.A. DeGroot, P. Gitta, M.L. Joloba, G. Kaplan, G. Walzl, W.H. Boom and J.T. Belisle, “A Metabolic Biosignature of Early Response to Anti-Tuberculosis Treatment”, 2014, BMC Infectious Diseases, 14:53.

C.L. Campbell, T. Harrison, **A.M. Hess** and G.D. Ebel, "MicroRNA levels are modulated during Dengue-2 infection of *Aedes aegypti*", 2014, *Insect Molecular Biology*, 23(1): 132-139.

A.N. Malone, D.M. Fletcher, M.B. Vogt, S.K. Meyer, **A.M. Hess** and T.M. Eckstein, "Early weight development of goats experimentally infected with *Mycobacterium avium* subsp. *Paratuberculosis*", 2013, *PLoS ONE* 8(12): e84049.

D.M. Fletcher, M.B. Vogt, H.E. Pirner, **A.M. Hess**, R.A. Bowen, M. Henao-Tamayo, and T.M. Eckstein, "Flow cytometry baseline on peripheral leukocyte cell profiles for dairy goat kids", 2013, *American Journal Animal Veterinary Science*, 8(4): 177-189.

G.M. Forster, C.A. Ollila, J.H. Burton, D. Hill, J.E. Bauer, **A.M. Hess**, E.P. Ryan, "Nutritional Weight Loss Therapy with Cooked Bean Powders Regulates Serum Lipids and Biochemical Analytes in Overweight and Obese Dogs", 2012, *Journal of Obesity and Weight Loss Therapy*, 2(8): 1000149.

Y.S. Cho, K. Dobos, J. Prenni, H. Yang, **A. Hess**, I. Rosenkrands, P. Anderson, S.W. Ryoo, G.-H. Bai, M. Brennan, A. Izzo, H. Bielefeldt-Ohmann, J. Belisle, "Deciphering the proteome of the in vivo diagnostic reagent "purified protein derivative" from *Mycobacterium tuberculosis*", 2012, *Proteomics*, 12(7): 979-991.

A. Hess, A. Prasa, A. Ptitsyn, G. Ebel, K.E. Olson, C. Barbacioru, C. Monighetti, C.L. Campbell, "Small RNA profiling of Dengue virus-mosquito interactions implicates the PIWI RNA pathway in anti-viral defense", 2011, *BMC Microbiology*, 11(1):45.
<http://www.biomedcentral.com/1471-2180/11/45/>

S. Walmsley, C. Broeckling, **A. Hess**, J. Prenni, N. Curthoys, "Proteomic Analysis of Brush Border Membrane Vesicles Isolated from Purified Proximal Convoluted Tubules", *Renal Physiology*, 2010, *Am J Physiology: Renal Physiology*, 298: F1323 - F1331.
<http://ajprenal.physiology.org/cgi/reprint/00711.2009v1>

C. Mehaffy, **A. Hess**, J. Prenni, B. Mathema, B. Kreiswirth, K. Dobos, "Descriptive proteomic analysis shows protein variability between closely related clinical isolates of *Mycobacterium tuberculosis*", *Proteomics*, 2010, 10(10):1966-1984.
<http://www3.interscience.wiley.com/journal/123316225/abstract>

M. Wallenstein, **A. Hess**, M. Lewis, H. Steltzer, E. Ayres, "Decomposition of aspen leaf litter results in unique metabolomes when decomposed under different tree species", *Soil Biology and Biochemistry*, 2010, 42(3): 484-490.

M. Bruce, **A. Hess**, J. Bai, R. Mauleon, M.G. Diaz, N. Sugiyama, A. Bordeos, G.L. Wang, H. Leung and J. Leach, "Detection of genomic deletions in rice using oligonucleotide microarrays", *BMC Genomics*, 2009, 10:129.
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2666768>

A. Hackstadt and **A. Hess**, “Filtering for Increased Power for Microarray Data Analysis”, *BMC Bioinformatics*, 2009, 10:11. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2661050>

N. Lapitan, **A. Hess**, B. Cooper, A.M. Botha, D. Badillo, H. Iyer, J. Menert, T. Close, L. Wright, G. Hanning, M. Tahir, C. Lawrence, “A comprehensive transcript profile of differentially expressed genes during malting in barley”, *Theoretical and Applied Genetics*, 2009, 118:937-952.
<http://www.springerlink.com/content/n367882100253502/?p=0361542dcf3a491f9dc11614b87d9113&pi=8>

C. Campbell, W.C. Black, **A. Hess**, B. Foy, “Comparative genomics of small RNA regulatory pathway components in vector mosquitoes”, *BMC Genomics*, 2008, 9:425.
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2566310>

D. van Hoewyk, H. Takahashi, E. Inoue, **A. Hess**, M. Tamaoki, E. Pilon-Smits, “Transcriptome analyses give insight into selenium-stress responses and selenium tolerance mechanisms in *Arabidopsis*”, *Physiologia Plantarum*, 2008, 132(2):236-253.
<http://www3.interscience.wiley.com/journal/119395386/abstract>

A. Hess and H. Iyer, “Fisher’s Combined p-value for Detecting Differentially Expressed Genes from Affymetrix Arrays”, *BMC Genomics*, 2007, 8:96.
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1854896>

A. Hess, H. Iyer and W. Malm, “Linear Trend Analysis- a Comparison of Methods”, *Atmospheric Environment*, 2001, 35:5211-5222.