

CURRICULUM VITAE

NAME

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EDUCATION

1992 Ph D, Texas A&M University

1986 Colorado State University

1983 Colorado State University

ACADEMIC POSITIONS

June 2015 - Present Holder of the Ken & Myra Monfort Endowed Chair in Meat Science, Colorado State University.

OTHER POSITIONS

2004 - Present Professor, Colorado State University.

2001 - 2004 Associate Professor, Department of Animal Sciences, Colorado State University.

1995 - 2001 Assistant Professor, Department of Animal Sciences, Colorado State University.

1995 - 1999 Colorado Meat Extension Specialist, Colorado State University.

1992 - 1995 International Marketing Specialist, USDA-AMS.

1992 Research Associate, Department of Animal Sciences, Texas A&M University.

1986 - 1988 Buyer, Fresh Meat Procurement, Corporate Meat Division, Safeway Stores, Inc.

1986 Quality Control Supervisor--Los Angeles Prefab, Corporate Meat Division, Safeway Stores, Inc.

PUBLISHED WORKS

Refereed Journal Articles

Callahan, Z. D., Belk, K. E., Miller, R. K., Morgan, J. B., Lorenzen, C. L. Combining two proven mechanical tenderness measurements in one steak. *Journal of Animal Science*, 91, 4521-4525.

Yoon, Y., Geornaras, I., Mukherjee, A., Belk, K. E., Scanga, J. A., Smith, G. C., Sofos, J. N. Effects of cooking

methods and chemical tenderizers on survival of *Escherichia coli* O157:H7 in ground beef patties. *Meat Science*, 95, 317-322.

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Igo, J. L., VanOverbeke, D. L., Woerner, D. R., Tatum, J. D., Pendell, D. L., Vedral, L. L., Mafi, G. G., Moore, M. C., McKeith, R. O., Gray, G. D., Griffin, D. B., Hale, D. S., Savell, J. W., Belk, K. E. Phase I of The National Beef Quality Audit – 2011: Quantifying willingness-to-pay, best worst scaling, and current status of quality characteristics in different beef industry marketing sectors. *Journal of Animal Science*, 91, 1907-1919.

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Semler, M. L., Woerner, D. R., Belk, K. E., Enns, K. J., Tatum, J. D. Effects of USDA carcass maturity on sensory attributes of steaks produced by cattle representing two dental age classes. *Journal of Animal Science*.

O'Quinn, T. G., Woerner, D. R., Engle, T. E., Chapman, P. L., Legako, J. F., Brooks, J. C., Belk, K. E., Tatum, J. D. (2016). Identifying consumer preferences for specific beef flavor characteristics in relation to cattle production and postmortem processing parameters. *Meat Science*, 112, 90-102.

Murphy, R. G.L., Howard, S. T., Woerner, D. R., Pendell, D. L., Dixon, C. L., Desimone, T. L., Green, M. D., Igo, J. L., Tatum, J. D., Belk, K. E. (2015). Definition, willingness-to-pay, and ranking of quality attributes of U.S. pork as defined by importers in Asia and Mexico. *Journal of Animal Science*, 93, 433-441.

Howard, S. T., Woerner, D. R., Vote, D. J., Scanga, J. A., Acheson, R. J., Chapman, P. L., Bryant, T. C., Tatum, J. D., Belk, K. E. (2014). Effects of ractopamine hydrochloride and zilpaterol hydrochloride supplementation on carcass cutability of calf-fed Holstein steers. *Journal of Animal Science*, 92, 369-375.

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- (2011). *Updating nutrient data for beef chuck cuts*. Texas Dietetic Association Food & Nutrition Conference & Exhibition (poster), Translating Trends into Reality for Dietetic Professionals, Houston, Texas. April 7-9, 2011.
- (2011). *Use of antimicrobials to reduce Salmonella contamination in heated for external browning, but uncooked, frozen breaded chicken meat products*. 71st Annual Meeting of the Institute of Food Technologists, June 11-14, New Orleans, LA. Abstract No. 202-02.
- (2011). *Validation of lactic acid for use as a primary and re-work subprimal antimicrobial intervention*. Abstract presented at BIFSCO, March, Dallas, TX.
- (2010). *A review of procedures to extend the storage life of chilled and frozen beef, pork, and lamb muscle cuts, variety meats, and processed products destined for foreign markets, and a presentation of storage life estimates*. pp 1-166 Final report to United States Meat Export Federation, Denver, CO Center for Meat Safety and Quality, Department of Animal Sciences, Colorado State University, Fort Collins, CO.
- (2010). *Antibiotic- resistance Class I integrons in commensal bacteria from various environments and their transferability to foodborne pathogens*. 97th Annual Meeting of the International Association for Food Protection, August 1-4, Anaheim, CA Abstract No P2-70.
- (2010). *Antimicrobial Chemicals for Sub-primal Microbiological Intervention*. Final Research Report submitted to Hawkins, Inc, Glen Allen, VA Center for Meat Safety and Quality, Department of Animal Sciences, Colorado State University, Fort Collins, CO.
- (2010). *Beef Facts: Beef Cutout Calculator*. Research & Knowledge Management, National Cattlemen s Beef Association, Centennial, CO pp 1-4.
- (2010). *Beef Nutrient Database Improvement Research-Phase II A Final Research Report submitted to the National Cattlemen s Beef Association, Centennial, CO*. Final Research Report submitted to the National Cattlemen s Beef Association, Centennial, CO Department of Animal Sciences, Colorado State University, Fort Collins, CO.
- (2010). *Comprehensive consumer sensory panel ratings and establishing baseline tenderness of American lamb meat*. Final report to American Lamb Board, Denver, CO Center for Meat Safety and Quality, Department of Animal Sciences, Colorado State University, Fort Collins, CO.
- (2010). *Development of USDA Performance Standards for Officially Approving VIA Lamb Carcass-Evaluation Instrumentation*. Final report to American Sheep Industry Association, Englewood, CO Center for Meat Safety and Quality, Department of Animal Sciences, Colorado State University, Fort Collins, CO.
- (2010). *Effect of brine ingredients on Escherichia coli O157:H7 during storage and cooking of moisture-enhanced vacuum- packaged beef*. 97th Annual Meeting of the International Association for Food Protection, August 1-4, Anaheim, CA Abstract No P2-140.
- (2010). *Effect of marinade ingredients with antimicrobial properties against Escherichia coli O157:H7 in a beef homogenate*. 97th Annual Meeting of the International Association for Food Protection, August 1-4, Anaheim, CA Abstract No P1-19.
- (2010). *Evaluation of commercially available compounds for antimicrobial intervention of sub-primal beef and pork* (vol. 86, pp. 567). Meat Sci.

- (2010). *Fate of Escherichia coli O157:H7 during aerobic storage at 4 or 12°C and subsequent thermal inactivation during cooking of beef moisture-enhanced with different brining ingredients*. 70th Annual Meeting of the Institute of Food Technologists, July 17-20, Chicago, IL Abstract No 041-02.
- (2010). *Fate of Escherichia coli O157:H7 in beef slaughter runoff fluids during carcass chilling and subsequent decontamination*. 97th Annual Meeting of the International Association for Food Protection, August 1-4, Anaheim, CA Abstract No P2-141.
- (2010). *JBS Microbiological Intervention Validation*. Final Research Report submitted to JBS SA, Greeley, CO Center for Meat Safety and Quality, Department of Animal Sciences, Colorado State University, Fort Collins, CO.
- (2010). *JBS Microbiological Intervention Validation Blitz*. Final Research Report submitted to JBS SA, Greeley, CO Center for Meat Safety and Quality, Department of Animal Sciences, Colorado State University, Fort Collins, CO.
- (2010). *JBS Microbiological Intervention Validation Lactic Acid*. Final Research Report submitted to JBS SA, Greeley, CO Center for Meat Safety and Quality, Department of Animal Sciences, Colorado State University, Fort Collins, CO.
- (2010). *JBS Microbiological Intervention Validation Spray in Bag Technologies*. Final Research Report submitted to JBS SA, Greeley, CO Center for Meat Safety and Quality, Department of Animal Sciences, Colorado State University, Fort Collins, CO.
- (2010). *JBS Microbiological Intervention Validation SYNTRx*. Final Research Report submitted to JBS SA, Greeley, CO Center for Meat Safety and Quality, Department of Animal Sciences, Colorado State University, Fort Collins, CO.
- (2010). *Muscles of the round: Nutrient composition of cooked cuts* Final Research Report submitted to the National Cattlemen s Beef Association, Centennial, CO. Final Research Report submitted to the National Cattlemen s Beef Association, Centennial, CO Center for Meat Safety and Quality, Department of Animal Sciences, Colorado State University, Fort Collins, CO.
- (2010). *Nutrient Analysis of the Beef Alternative Merchandising (BAM) Cuts: An Update to SDIBC*. Prepared for the National Cattlemen s Beef Association, Centennial, CO Center for Red Meat Safety and Quality, Colorado State University, Fort Collins, CO.
- (2010). *Prediction of Meat Tenderness Using High Resolution Imaging*. Final Report to the National Cattleman's Beef Association, Centennial, CO Center for Meat Safety and Quality, Department of Animal Sciences, Colorado State University, Fort Collins, CO.
- (2010). *Presence of antibiotic resistant commensal bacteria in agricultural, city and national park environments evaluated by standard culture and real-time PCR methods*. 70th Annual Meeting of the Institute of Food Technologists, July 17-20, Chicago, IL Abstract No 037-16.
- (2010). *Quantifying the Aging Response for Muscles of the Beef Round* Final Research Report submitted to the National Cattlemen s Beef Association, Centennial, CO. Final Research Report submitted to the National Cattlemen s Beef Association, Centennial, CO Center for Meat Safety and Quality, Department of Animal Sciences, Colorado State University, Fort Collins, CO.
- (2010). *Sanitation of tenderizer blades to reduce cross-contamination of beef with Escherichia coli O157:H7*. Food Micro 2010, 22nd International ICFMH Symposium, August 30- September 3, Copenhagen, Denmark Abstract No PED127.
- (2010). *Survival of Escherichia coli O157:H7 during frozen storage and subsequent cooking of beef steaks*

moisture-enhanced with different brining formulations. 63rd Reciprocal Meat Conference, American Meat Science Association, June 20-23, Lubbock, TX Abstract No 106P.

- (2010). *Thermal inactivation of acid, cold, heat, starvation and desiccation stress-adapted Escherichia coli O157:H7 in nonintact beef moisture-enhanced with various brine ingredients*. 97th Annual Meeting of the International Association for Food Protection, August 1-4, Anaheim, CA Abstract No P3-82.
- (2010). *Thermal inactivation of Escherichia coli O157:H7 in different parts of beef roasts moisture-enhanced with different brining formulations and cooked to rare or very-rare degrees of doneness*. 70th Annual Meeting of the Institute of Food Technologists, July 17-20, Chicago, IL Abstract No COMP17-04 (038-57).
- (2010). *Thermal inactivation of Escherichia coli O157:H7 in moisture-enhanced nonintact beef by pan-broiling or roasting using different cooking appliances with different starting temperatures*. 70th Annual Meeting of the Institute of Food Technologists, July 17-20, Chicago, IL Abstract No 038-09.
- (2010). *Validation of citrus essential oils to control foodborne pathogens on beef carcasses and subprimals* Final Research Report submitted to the National Cattlemen s Beef Association, Centennial, CO. Final Research Report submitted to the National Cattlemen s Beef Association, Centennial, CO Center for Meat Safety and Quality, Department of Animal Sciences, Colorado State University, Fort Collins, CO.
- (2010). *What is quality? The propensity of foreign customers of US pork to pay for pork quality attributes in select export markets*. pp 1-198 Final report to National Pork Board, Des Moines, IA Center for Meat Safety and Quality, Department of Animal Sciences, Colorado State University, Fort Collins, CO.
- (2002). *Live dairy cult cow characteristics and associated microbial contamination*. Abstr Pap Am Chem Soc 228:023-AGRO.

Abstract

- Adams, T. S., Woerner, D. R., Legako, J. F., Engle, T. E., Tatum, J. D., Delmore, R., Belk, K. E. (2015). *Identifying the influence of cattle production history and lean muscle characteristics on specific beef flavor attributes* (vol. 112, pp. 149-150). Meat Science.
- Hoffman, T. W., Belk, K. E., Tatum, J. D., Delmore, R., Peel, R. K., Levalley, S. B., Pendell, D. L., Zerby, H. N., English, L. F., Moeller, S. J., Fluharty, F. L. (2015). *Preferences associated with American lamb quality in retail & foodservice markets* (vol. 112, pp. 138). Meat Science.
- Webb, M., Woerner, D. R., Pendell, D. L., Engle, T. E., Henson, J., Zerby, H., Delmore, R., Belk, K. E., Tatum, J. D. (in press). *Identifying consumer preferences for different beef types based on flavor*. Meat Science.
- Howard, S. T., Scanga, J. A., Woerner, D. R., VanOverbeke, D. L., Tatum, J. D., Belk, K. E. (2013). *North American beef tenderness survey 2011-2012. 2013* (vol. 96, pp. 478-479). Meat Science.
- Yang, X., Pittman, C. I., Perham, C. C., Geornaras, I., Sofos, J. N., Woerner, D. R., Belk, K. E. (2013). *Validation of the commercial use of thermal pasteurization combined with a bromine solution as whole carcass antimicrobial intervention when tested at operational parameters*. BIFSCO, March 13-15, Dallas, TX..

Research Report

- Acheson, R. J., Woerner, D. R., Belk, K. E., Tatum, J. D. (2013). *Effects of differences in carcass maturity on eating quality of beef produced by grain-finished steers and heifers that have been classified as less than 30 months old using birth records or dentition* (pp. 1-23). Final Report to National Cattlemen's Beef Association.
- Perham, C. C., Geornaras, I., Fouladkhah, A., Woerner, D. R., Belk, K. E., Sofos, J. N. (2013). *Food safety assistance for small meat and poultry processors through development and implementation of "Industry Best*

Practices: An Integrated Approach” (pp. 27 pages). Final report submitted to the University of Nebraska-Lincoln by the Center for Meat Safety & Quality, Department of Animal Sciences, Colorado State University, Fort Collins, CO.

White Paper

Murphy, R. L., Scott, B. R., Delmore, L., Martin, J., Woerner, D. R., Belk, K. E., Delmore, R. *Guidance for Allergen Control in Meat Establishments*. Washington, DC: North American Meat Institute.

Murphy, R. L., Scott, B. R., Delmore, L., Martin, J., Woerner, D. R., Belk, K. E., Delmore, R. (2015). *Guidance for Selecting a Commercial or Private Laboratory*. Washington, DC: North American Meat Institute.

Tatum, J. D., Zerby, H., Belk, K. E. (2014). *A brief overview of factors affecting lamb flavor – White Paper prepared for the Product Characteristics Committee of the Lamb Industry Roadmap Committee*. American Lamb Roadmap Project - American Lamb Board.

Tatum, J. D., Zerby, H., Belk, K. E. (2014). *Defining Lamb – White Paper prepared for the Product Characteristics Committee of the Lamb Industry Roadmap Committee*. American Lamb Roadmap Project - American Lamb Board.

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

December 15, 2016, "Validation of antimicrobial interventions including use of peroxyacetic acid (PAA) in a spray chill system and a head spray cabinet in a commercial beef harvest operation", Beef Industry Food Safety Council, National Cattleman's Beef Association.

December 2015, "Comparing the resistome of poultry, swine, cattle and salmon production and nearby waste water treatment plants", (Presenter) Noyes, N.

December 2015, "Draft Genome Sequence of a Shiga Toxin-Negative Escherichia coli O157:H7 Strain C1-057 Isolated from Feedlot Cattle", (Presenter) Yang, H., peer-reviewed/refereed.

December 15, 2015, "Determining process lethality of Escherichia coli O157:H7 and Salmonella spp. in heat treated, rendered oil", Beef Industry Food Safety Council, National Cattleman's Beef Association.

November 2015, "Marketing Beef Cows", Hawaii Cattlemen's Council, (Presenter) Belk, K. E.

November 2015, "Improving Pork Variety Meat Exports Using Fibrin Technology", USMEF Board of Directors Meeting, (Presenter) Belk, K. E.

September 2015, "Beef Marketing", Brazilian Novilho Precoce MS Visit, (Presenter) Belk, K. E.

August 2015, "CMSQ Description", AMR Collaboration Meetings, (Presenter) Belk, K. E.

August 2015, "Meat Marketing/Meat Safety", Zoetis Beef University.

July 2015, "Public-Science Communication", IFT Annual Meeting, (Presenter) Belk, K. E.

July 14, 2015, "Preferences and Complaints Associated With American Lamb Quality and Retail Outlets", American Lamb Board, American Lamb Board, peer-reviewed/refereed.

June 2015, "National Lamb Quality Audit Strategy Workshop", American Lamb Board.

April 2015, "Como Agregar Valor a tu Carne de Res", Annual International Beef Congress of Mexico, (Presenter) Belk, K. E.

April 2015, "Complexity of AMR", CSU One Health Reception, (Presenter) Belk, K. E.

April 2015, "Beef Marketing Trends", CVMBS/CAS Beef Industry Dinner, (Presenter) Belk, K. E.

January 2015, "National Lamb Quality Audit & Research Update", American Sheep Industry Association Annual Meeting, (Presenter) Belk, K. E.

January 2015, "Building Knowledge Concerning AMR & Fighting Misinformation", International Livestock Forum, (Presenter) Belk, K. E.

January 15, 2015, "Developing a methodology for the microbiological evaluation of rendered oils", Institute of Food Technologists, peer-reviewed/refereed.

January 14, 2015, "Effects of sulfuric acid sodium sulfate on natural spoilage microflora, lean discoloration and off-odors of pork boneless loins and back ribs", IFT 16, Institute of Food Technologists, peer-reviewed/refereed.

2012, ""Del Campo al Plato", Montevideo, Uruguay, Beef Marketing in the U.S."

2012, ""Del Campo al Plato", Montevideo, Uruguay, Food Safety Risk and Communicating Science to the Public".

2012, "AMI/FMI Annual Meat Conference, Orlando, FL, Case-Ready Packaging".

2012, "Cargill Visiting Brazilians via Pablo Guiroy, ARDEC, Beef Marketing in the U.S."

2012, "Colorado Dept. Ag. Russian Team Visit, Campus, Beef Marketing".

2012, "German Federal Institute for Risk Assessment (BfR), Berlin, Germany, Use of intervention chemicals to decontaminate beef".

2012, "International Meat Conference, Mexico City, Mexico, Beef Marketing Trends".

2012, "NCBA Annual Convention, Nashville, TN (Cattlemen's College) National Beef Quality Audit-2011".

2012, "NCBA Annual Convention, Nashville, TN (Cattlemen's College) National Beef Quality Audit-2011, 2nd Presentation".

2012, "NCBA BQA Advisory Team Meeting, Denver, CO, Results of NBQA-2011 Phase I".

2012, "NCBA BQA Coordinators Meeting, Denver, CO, Results of NBQA-2011 Phase-I".

2012, "NCBA NBQA-2011 Strategy Session, Denver, CO, Phase-I Results".

2012, "NCBA NBQA-2011 Strategy Session, Denver, CO, Strategy Session Summary".

2012, "NCBA Summer Conference, NBQA-2011 Presentation, Denver, CO, National Beef Quality Audit-2011 Phase I Results (1)".

2012, "NCBA Summer Conference, NBQA-2011 Presentation, Denver, CO, National Beef Quality Audit-2011 Phase I Results (2)".

2012, "NWSS 2012 International Livestock Congress, Denver, CO".

2012, "USMEF-EU Commission Tour, Greeley & Fort Morgan, CO, Lactic Acid Use in the U.S.".

2012, "Visit by Dr. Mauricio Rodriguez & Team from Uruguay (approx. 50), Campus, Beef Marketing".

2011, "California Beef Council Beef Tour (Natural/Grass/Organic), Davis, CA".

2011, "EU Commission AMT Food Safety Seminar, Brussels, Belgium".

2011, "Fort Collins Rotary Club, E. coli & Food Safety".

2011, "FSIS District EIAO Meeting--HACCP Validation, Denver".

2011, "Kentucky Dietetic Association Annual Meeting (Natural/Grass/Organic), Louisville, KY".

2011, "NCBA's "Cattlemen to Cattlemen" Interview--Instrument Grading, Campus".

2011, "Northern Colorado Dietetic Association (Natural/Grass/Organic), Windsor".

2011, "NPB Propensity to Pay for US Pork Study Web Conference, Campus".

2011, "SMA Research Update, San Antonio, TX".

2011, "USMEF Egyptian Vets Presentation; Hallal Slaughter, Amarillo, TX".

2010, "AMSA Reciprocal Meat Conference, Lubbock, TX".

2010, "California Beef Council Nutrition Seminar for CDA, Oakland, CA".

2010, "Department Beef Advisory Committee Meeting, ARDEC".

2010, "Foodprint Project Panel, Museum of Contemporary Art, Denver, CO".

2010, "LA County Food Safety Advisory Council Meeting, Los Angeles, CA".

2010, "Michigan Beef Council Nutrition Seminar for MDA, Bay City, MI".

2010, "NCBA Innovative Beef Symposium-Round Data, Denver, CO".

2010, "NCBA Midyear Conference, Denver, CO".

2010, "NCBA Nutrient Database Initiative Advisory Meeting, Bastrop, TX".

2010, "NPB Pork WTP Study Webinar, Campus".

2010, "NPB Pork WTP Study Webinars for Exporting Companies (4), Campus".

2010, "USMEF Japanese Media Team, ARDEC & Campus".

2010, "USMEF Korea E-Mart Group, ARDEC".

2010, "USMEF Korea Lotte Mart Group, ARDEC".

OTHER ACTIVITIES/ACCOMPLISHMENTS – PUBLICATIONS/SCHOLARLY RECORD

Martin, J., Morley, P. S., Belk, K. E., Noyes, N. R., Abdo, Z., Boucher, C. A., Jones, K., Ruiz, J. G., Weinroth, M. D., Doster, E., Rovira Sanz, P. J., Yang, X., Carlson, C. R., Lakin, S. M., Dean, C., Ross, A., Parker, J. K., Raymond, R. L. "AMR SNP Chip and Bait Pulldown," Licensed to: Colorado State University. (Submitted: October 7, 2015).

(January 22, 2015 - Present). BRC Certified Trainer, British Retail Consortium.

(August 30, 1995 - Present). HACCP Trainer, International HACCP Alliance.

(August 8, 2014 - January 27, 2017). SQF Practitioner & Trainer, SQF Institute.

TEACHING:

<u>Year</u>	<u>Semester</u>	<u>Course No./Title</u>	<u>Cr. Hrs.</u>	<u>Enrollment</u>
2016	Spring	ANEQ799 - Dissertation	18	11
2016	Spring	ANEQ565 - Interpreting Animal Science Research	3	19
2016	Spring	ANEQ792D - Seminar-Meat Sciences	1	17
2016	Spring	ANEQ784 - Supervised College Teaching	18	31
2015	Fall	ANEQ792D - Seminar-Meat Sciences	1	14
2015	Fall	ANEQ784 - Supervised College Teaching	18	29
2015	Fall	ANEQ699 - Thesis	18	10
2015	Summer	ANEQ699 - Thesis	18	3
2015	Spring	VM757 - Bovine Herd Medicine	3	53
2015	Spring	ANEQ799 - Dissertation	18	7
2015	Spring	ANEQ495 - Independent Study	18	13
2015	Spring	ANEQ565 - Interpreting Animal Science Research	3	17
2015	Spring	ANEQ792D - Seminar-Meat Sciences	1	15
2015	Spring	ANEQ784 - Supervised College Teaching	18	28
2014	Fall	ANEQ799 - Dissertation	18	8
2014	Fall	ANEQ360 - Principles of Meat Science	3	92
2014	Fall	ANEQ792D - Seminar-Meat Sciences	1	14
2014	Spring	VM757 - Bovine Herd Medicine	3	48
2014	Spring	ANEQ799 - Dissertation	18	6
2014	Spring	ANEQ565 - Interpreting Animal Science Research	3	17
2014	Spring	ANEQ792D - Seminar-Meat Sciences	1	13
2014	Spring	ANEQ784 - Supervised College Teaching	18	23
2013	Fall	ANEQ799 - Dissertation	18	7
2013	Fall	ANEQ360 - Meat Science	3	69
2013	Fall	ANEQ360 - Principles of Meat Science	3	69
2013	Fall	ANEQ792D - Seminar-Meat Sciences	1	10
2013	Fall	ANEQ792D - Seminar-Meat Sciences	1	10
2013	Spring	VM757 - Bovine Herd Medicine	3	42
2013	Spring	ANEQ799 - Dissertation	18	5
2013	Spring	ANEQ567 - HACCP Meat Safety	2	7
2013	Spring	ANEQ565 - Interpreting Animal Science Research	3	14
2013	Spring	ANEQ792D - Seminar-Meat Sciences	1	10
2013	Spring	ANEQ784 - Supervised College Teaching	18	22
2013	Spring	ANEQ699 - Thesis	18	9
2012	Fall	ANEQ799 - Dissertation	18	8
2012	Fall	ANEQ360 - Principles of Meat Science	3	63
2012	Fall	ANEQ792D - Seminar-Meat Sciences	1	10
2012	Spring	VM757 - Bovine Herd Medicine	3	53
2012	Spring	ANEQ799 - Dissertation	18	12
2012	Spring	ANEQ567 - HACCP Meat Safety	2	23
2012	Spring	ANEQ565 - Interpreting Animal Science Research	3	13
2012	Spring	ANEQ792D - Seminar-Meat Sciences	1	9
2012	Spring	ANEQ784 - Supervised College Teaching	18	18
2011	Fall	ANEQ360 - Principles of Meat Science	3	62
2011	Fall	ANEQ792D - Seminar-Meat Sciences	1	8
2011	Fall	ANEQ699 - Thesis	18	13
2011	Spring	VM757 - Bovine Herd Medicine	3	47
2011	Spring	ANEQ565 - Interpreting Animal Science Research	3	12
2011	Spring	ANEQ792D - Seminar-Meat Sciences	1	15
2011	Spring	ANEQ784 - Supervised College Teaching	18	23
2010	Fall	ANEQ799 - Dissertation	18	14
2010	Fall	ANEQ360 - Principles of Meat Science	3	63

2010	Fall	ANeq792D - Seminar-Meat Sciences	1	18
2010	Fall	ANeq699 - Thesis	18	14
2010	Spring	VM757 - Bovine Herd Medicine	3	54
2010	Spring	ANeq799 - Dissertation	18	11
2010	Spring	ANeq565 - Interpreting Animal Science Research	3	18
2010	Spring	ANeq792D - Seminar-Meat Sciences	1	13
2010	Spring	ANeq784 - Supervised College Teaching	18	23
2010	Spring	ANeq699 - Thesis	18	15
2009	Fall	ANeq799 - Dissertation	18	10
2009	Fall	ANeq360 - Principles of Meat Science	3	50
2009	Fall	ANeq792D - Seminar-Meat Sciences	1	17
2009	Fall	ANeq784 - Supervised College Teaching	18	21
2009	Fall	ANeq699 - Thesis	18	16
2009	Spring	ANeq362 - Advanced Meat Product Evaluation	1	2
2009	Spring	VM757 - Bovine Herd Medicine	3	35
2009	Spring	ANeq799 - Dissertation	18	13
2009	Spring	ANeq495 - Independent Study	18	17
2009	Spring	ANeq795 - Independent Study	18	2
2009	Spring	ANeq565 - Interpreting Animal Science Research	3	13
2009	Spring	ANeq792D - Seminar-Meat Sciences	1	18
2009	Spring	ANeq784 - Supervised College Teaching	18	20
2009	Spring	ANeq699 - Thesis	18	14
2008	Fall	ANeq799 - Dissertation	18	12
2008	Fall	ANeq360 - Principles of Meat Science	3	48
2008	Fall	ANeq792D - Seminar-Meat Sciences	1	19
2008	Fall	ANeq784 - Supervised College Teaching	18	24
2008	Fall	ANeq699 - Thesis	18	12
2008	Spring	ANeq350B - Animal and Product Judging-Meats	5	3
2008	Spring	ANeq487 - Internship	18	24
2008	Spring	ANeq565 - Interpreting Animal Science Research	3	7
2008	Spring	ANeq792D - Seminar-Meat Sciences	1	12
2007	Fall	ANeq350B - Animal and Product Judging: Meats	5	21
2007	Fall	ANeq360 - Principles of Meat Science	3	51
2007	Fall	ANeq792D - Seminar: Meat Sciences	1	14

COMMITTEES

- High Plains Intermountain Center for Agricultural Health & Safety, Advisory Team Member, (April 2014 - Present).
- Gary & Kay Smith Global Food Innovation Center External Funding Committee, (August 15, 2013 - December 31, 2016).
- Departmental Search Committee, Assistant/Associate Professor Food Microbiologist Position, (December 1, 2013 - December 28, 2014).

PROFESSIONAL AFFILIATIONS AND ACTIVITIES

American Meat Science Association.

American Society for Testing & Materials, International.

American Society of Animal Science.

Colorado Cattlemen s Association.

Colorado Livestock Association.

Institute of Food Techn.

Intercollegiate Meat Coaches Association.

International Association for Food Protection.

National Cattlemen s Beef Association.

American Society for Microbiology. (December 31, 2015 - Present).

Phi Tau Sigma Honorary Society. (May 1, 2015 - Present).

Colorado Angus Associaiton. (2012 - Present).

The Western Stock Show Association. (2006 - Present).

American Meat Science Association.

Member, American Society for Testing & Materials, International.

Member, American Society of Animal Science.

Member, Colorado Cattlemen s Association.

Member, Colorado Livestock Association.

Member, Institute of Food Techn.

Member, Intercollegiate Meat Coaches Association.

Member, International Association for Food Protection.

Member, National Cattlemen s Beef Association.

Member, American Meat Science Association Membership Committee. (2012 - Present).

Reviewer, Ad Hoc Reviewer, Canadian Beef Cattle Research Council, , 9-10-12. (2012 - Present).

Member, Colorado Angus Associaiton. (2012 - Present).

Journal of Animal Science. (2012 - Present).

Reviewer, Ad Hoc Reviewer, Alberta Livestock & Meat Agency Ltd. (2011 - Present).

Member, American Meat Science Association International Committee. (2011 - Present).

Member, American Meat Science Association Nominations Committee. (2011 - Present).

Colorado Junior Angus Association, Advisor. (2011 - Present).

Colorado School of Public Health, Center for Food Safety & the Prevention of Foodborne Diseases. (2011 - Present).

Journal of Animal Science. (2011 - Present).

Journal of Food Protection. (2011 - Present).

Member, USDA-AMS Beef Grading Instrument Review Procedures Panel. (2010 - Present).

Member, JBS Food Safety and Quality Advisory Team. (2009 - Present).

Committee Chair, Tenure & Promotion Committee. (2009 - Present).

Member, The Western Stock Show Association. (2006 - Present).

Member, Coordinating Committee. (2002 - Present).

Member, Departmental Search Committee, Assistant/Associate Professor Food Microbiologist Position. (2012 - 2013).

Member, Departmental Search Committee, Associate/Full Professor Meat Scientist Position. (2012 - 2013).

Member, Animal Sciences Building Renovation & Addition; Selection of Construction Manager/General Contractor. (2012).

Committee Chair, AMSA Kansas City Royal Contest, Omaha, NE. (2012).

Host, Meet w/ Rachael Miller, FishChoice, Inc., Campus. (2012).

Host/Advisor, Beef + Transparency = Trust Meeting, Denver, CO. (2012).

Host/Speaker, Cargill Visiting Brazilians via Pablo Guiroy, ARDEC. (2012).

Host/Speaker, Colorado Dept. Ag. Russian Team Visit, Campus. (2012).

Host/Speaker, Visit by Dr. Mauricio Rodriguez & Team from Uruguay, Campus. (2012).

Interviewee, CAB Interview, Miranda Reiman, NBQA-2011, Campus. (2012).

Interviewee, CEV Video Session, Campus (BSE). (2012).

Interviewee, NCBA's Cattlemen-to-Cattlemen, Englewood, CO. (2012).

Judge, Colorado State Science Fair, Special Awards Judge for CAMP, Campus. (2012).

Member, JBS Quality & Safety Advisory Team, Greeley, CO. (2012).

Moderator, NWSS 2012 International Livestock Congress, Denver, CO. (2012).

National Provisioner Interview, Megan Pellegrini Pre- & Post Interventions. (2012).

Organizer, Animal Sciences Food Processing Center Planning, San Luis Obispo, CA. (2012).

Organizer/Speaker, NCBA NBQA-2011 Strategy Session, Denver, CO. (2012).

Participant, AMSA Reciprocal Meat Conference, Fargo, ND. (2012).

Participant, CAB “Open-Ended Round-Table Discussion”, Fargo, ND. (2012).

Participant, NAMA Inaugural Meeting, San Antonio, TX. (2012).

Speaker, "Del Campo al Plato", Montevideo, Uruguay. (2012).

Speaker, AMI/FMI Annual Meat Conference, Orlando, FL. (2012).

Speaker, Colorado Beef Council Meeting, Denver, CO. (2012).

Speaker, German Federal Institute for Risk Assessment (BfR), Berlin, Germany. (2012).

Speaker, International Meat Conference, Mexico City, Mexico. (2012).

Speaker, NCBA Annual Convention, Nashville, TN. (2012).

Speaker, NCBA BQA Advisory Team Meeting, Denver, CO. (2012).

Speaker, NCBA BQA Coordinators Meeting, Denver, CO. (2012).

Speaker, NCBA Summer Conference, NBQA-2011 Presentation, Denver, CO. (2012).

Speaker, USMEF-EU Commission Tour, Lactic Acid, Greeley & Fort Morgan. (2012).

Youth Host, CJAA Golden Trends, ARDEC. (2012).

AMSA Reciprocal Meat Conference, Manhattan, KS. (2011).

BIFSCO Meeting, Non-0157 STECs, Omaha, NE. (2011).

British Retail Consortium Training & Internal Auditing, Los Angeles. (2011).

California Beef Council Beef Tour, Davis, CA. (2011).

CEV Content Use Meeting, Wyndham Love Field, Dallas. (2011).

CJAA Association “Golden Trend” Field Day, ARDEC. (2011).

CSPH Center for Food Safety Meeting. (2011).

Fort Collins Rotary Club, E. coli & Food Safety. (2011).

FSNS BRC Training Course, Fresno, CA. (2011).

FSNS HACCP Course, Atlanta, GA. (2011).

FSNS HACCP Course, Fresno, CA. (2011).

FSNS HACCP Course, Green Bay, WI. (2011).

FSNS HACCP Course, Phoenix, AZ. (2011).

FSNS HACCP Course, San Antonio, TX. (2011).

FSNS John Soules Foods HACCP Course, Tyler, TX. (2011).

JBS Greeley Plant Tour for Elaine Scallan. (2011).

National Cattlemen's Beef Association Convention, Denver. (2011).

National Provisioner Interview, Campus. (2011).

Northern Colorado Dietetic Association ARDEC Tour. (2011).

Preston Middle School 6th-8th Grade Lego Robotics Team, Campus. (2011).

American Meat Science Association. (2010 - 2011).

Committee Chair, American Meat Science Association Nominations Committee. (2010 - 2011).

Member, Search Committee, Head of Department of Animal Sciences. (2010 - 2011).

Committee Chair, Search Committee, John E. Rouse Endowed Chair in Beef Cattle Genetics. (2009 - 2011).

AMI Video Shoot for YouTube (2), Lubbock, TX. (2010).

Birko Corp. Meeting w/ Kelly C. Green RE: Advisory Board, Windsor, CO. (2010).

Committee Chair, CAS "Strategic Initiatives White Paper" Assuring Meat/Produce Safety & Quality. (2010).

Drovers Journal Video Update at NCBA Food Safety, San Antonio, TX. (2010).

Meet w/ JBS Brazilian Guests, Greeley, CO. (2010).

National Junior Angus Show Cookoff, Denver, CO. (2010).

National Provisioner Phone Interview w/ Megan Pellegrini, Campus. (2010).

NCBA Innovative Beef Symposium-Round Data, Denver, CO. (2010).

NCBA/NPB Press Conference for USDA/DOJ GIPSA Public Meeting--Meal. (2010).

President's Ag Advisory Council Meeting, Rockwell Hall. (2010).

USMEF Egyptian Veterinarian Visitors. (2010).

USMEF Japanese Media Team, ARDEC & Campus. (2010).

USMEF Korea E-Mart Group, ARDEC. (2010).

USMEF Korea Lotte Mart Group, ARDEC. (2010).

American Meat Science Association. (2009 - 2010).

Committee Chair, Search Committee, John E. Rouse Endowed Chair in Beef Cattle Genetics. (2009 - 2010).

Member, Department Tenure & Promotion Committee. (2004 - 2008).

OTHER ACTIVITIES/ACCOMPLISHMENTS – SERVICE/OUTREACH

For Profit Organization, Food Safety Net Services, San Antonio, TX, United States. (January 1, 2014 - December 31, 2015).

For Profit Organization, Food Safety Net Services, San Antonio, TX. (January 1, 2013 - December 31, 2013).

Food Safety Net Services. (2012).

Food Safety Net Services. (2011).

Food Safety Net Services. (2010).
