

# CURRICULUM VITAE

University of Idaho

**NAME:** Michael J Colle

**DATE:** 7-22-2019

**RANK OR TITLE:** Assistant Professor – Meat Science

**DEPARTMENT:** Animal and Veterinary Science

**OFFICE LOCATION AND CAMPUS ZIP:** 218 Agricultural Science Bldg

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**WEB:**

**DATE OF FIRST EMPLOYMENT AT UI:** 9-7-2017

**DATE OF TENURE:** Untenured

**DATE OF PRESENT RANK OR TITLE:** 9-7-2017

## **EDUCATION BEYOND HIGH SCHOOL:**

### **Degrees:**

Ph.D. University of Idaho, Moscow, ID, May 2017, Animal Physiology

M.S. University of Idaho, Moscow, ID, May 2014, Animal Science

B.S. University of Wisconsin – River Falls, River Falls, WI, May 2011, Chemistry, Biochemistry emphasis

### **Certificates and Licenses:**

Beef Quality Assurance (2019)

Basic HACCP Certification (2012)

## **EXPERIENCE:**

### **Teaching, Extension and Research Appointments:**

Assistant Professor – Meat Science; UI, Moscow, ID (9-7-2017 to present)

- 55% Teaching and Advising
- 35% Scholarship and Creative Activities
- 5% Outreach and Extension
- 5% University Service and Leadership

Graduate Research Assistant - Animal Science, UI, Moscow, ID (2011-2016)

### **Academic Administrative Appointments:**

### **Non-Academic Employment including Armed Forces:**

Associate Food Technologist, Jennie-O Turkey Store, Willmar, MN (September 2016 to June 2017)

Develop new, unique products, improve existing products, and trouble shoot product quality issues.

### **Consulting:**

## **TEACHING ACCOMPLISHMENTS:**

### **Areas of Specialization:**

Meat Science, Livestock and Carcass Evaluation, Beef Science, Sheep Science, Beef Feedlot Systems, Animal Growth

**Courses Taught:** (title, course number, date(s))

- Live Animal and Carcass Evaluation, AVS 263, 3 cr
  - Fall 2017, 100%, 4 WSU, 19 UI students
  - Fall 2018, 100%, 4 WSU, 11 UI students
  - Fall 2019, 100%, \_ WSU, \_\_ UI students
- Growth and Lactation, AVS 463/563, 3 cr
  - Fall 2017, 33%, 3 M.S., 8 B.S. students
  - Fall 2018, 33% (course coordinator), 5 M.S., 16 B.S. students
  - Fall 2019, 33% \_ M.S., \_ B.S. students
- Meat Science Lab Techniques, AVS 502, 2 cr
  - Fall 2018, 100%, 3 M.S. students
- Product Development, Cured, AVS 499, 2 cr
  - Fall 2018, 50%, 1 B.S. student
- Science of Animal Husbandry, AVS 110, 3 cr
  - Spring 2018, 50%, 64 B.S. students
  - Spring 2019, 67%, 74 B.S. students
- Science of Animal Husbandry Lab, AVS 110L, 1 cr
  - Spring 2018, 50%
    - Section 01 – 25 B.S. students
    - Section 02 – 19 B.S. students
    - Section 03 – 14 B.S. students
    - Section 04 – 6 B.S. students
  - Spring 2019, 100%
    - Section 01 – 23 B.S. students
    - Section 02 – 24 B.S. students
    - Section 03 – 18 B.S. students
    - Section 04 – 10 B.S. students
- Advanced Livestock Evaluation, AVS 204, 2 cr
  - Spring 2018, 100%, 3 WSU, 7 UI students
  - Spring 2019, 100%, 1 WSU, 4 UI students
- Beef Feedlot Systems, AVS 274, 2 cr
  - Spring 2018, 100%, 6 B.S. students
  - Spring 2019, 100% 14 B.S. students
- Beef Science, AVS 474, 3 cr
  - Spring 2015, 50%, 33 B.S. students
- Sheep Science, AVS 476, 3 cr
  - Spring 2014, 100%, 2 WSU, 36 UI students

**Guest Lectures:**

University of Idaho, Moscow, ID

Sheep Science (AVS 476) (2018)

Breeding Sheep Evaluation

Genotypic Evaluation

Market Lamb and Carcass Evaluation

Lamb Fabrication

Beef Science (AVS 474)

- Spring 2018
  - Beef Breeds, Beef Cattle Selection (2 lectures), Beef Cattle Growth, Growth Promoters, Beef Grading, Quality, and Pricing (2 lectures), Production Factors that Affect Beef Growth, Yield, and Quality
- Spring 2019
  - Beef Cattle Selection (2 lectures), Beef Cattle Growth, Beef Grading, Quality, and Pricing, Production Factors that Affect Beef Growth, Yield, and Quality

Washington State University, Pullman, WA

Beef Cow Calf Management Laboratory (ANIM\_SCI 174)

Market Cattle Evaluation (2017 and 2018)

Beef Carcass Evaluation (2018)

**Clubs Advised:**

Block & Bridle (2017-present)  
Livestock Judging Club (2017-present)

**Students Advised:**

Undergraduate Students: (advised to completion of degree, number per year)

- 2017 – Mentored 14 Freshman and 4 Sophomore standing students
- 2018 – Advised 10 Freshman, 12 Sophomore, 6 Junior standing students
- 2019 – Advised 14 Freshman, 10 Sophomore, 9 Junior, 4 Senior standing students

Graduate Students:

Advised to completion of degree-major professor (student name, degree, and date)

Current Students:

- Brianna Buseman
- Tanya Weber
- Jessie Van Buren

Served on graduate committee (student name, degree, and date)

Current Committees:

- Toni Calacchio, M.S. in Animal Science, 5-14-2019
- Avani Guoru, M.S. in Animal Science, 5-21-2019
- Jessica Lancaster

**Materials Developed:** (non-scholarship activity)

Science of Animal Husbandry Lab, AVS 110L, Developed an Equipment ID, Animal Products and Aquaculture lab (2019)

Science of Animal Husbandry, AVS 110, Updated materials

Beef Feedlot Systems, AVS 274, Updated materials

Live Animal and Carcass Evaluation, AVS 263, Updated materials

Growth and Lactation, AVS 463/563, Updated materials

Beef Science, AVS 474, Updated materials

Sheep Science, AVS 476, Developed course after it was dormant for ~7 years

**Courses Developed:**

Meat Science Lab Techniques, AVS 502, Developed course

**Non-credit Classes, Workshops, Seminars, Invited Lectures, etc.:**

Academic Quadrathlon Team Coach, University of Idaho, Moscow, ID (2019)

AVS 501 Graduate Student Seminar, University of Idaho, Moscow, ID (2019)

Presented: *Calpains and Meat Tenderness*

RMC Undergraduate Quiz Bowl Team Coach, University of Idaho, Moscow, ID (2014)

Meat Animal Evaluation Team Coach, University of Idaho, Moscow, ID (2011-2013)

**Honors and Awards:**

**SCHOLARSHIP ACCOMPLISHMENTS:** (Including scholarship of teaching and learning, artistic creativity, discovery, and application/integration)

**Publications, Exhibitions, Performances, Recitals:****Refereed Journal Articles:**

- Colle, M.J.**, R.P. Richard, M.C. Colle, W.I. Loucks, G.K. Murdoch, C.J. Williams, and M.E. Doumit. 2019. Retail display properties and consumer perception of extended aged beef topically treated with ascorbic acid and rosemary extract. *Meat and Muscle Biology*. 3:42-50.
- Colle, M.C., R.P. Richard, D.M. Smith, **M.J. Colle**, W.I. Loucks, S.J. Gray, Z.G. Reynolds, H.A. Sutton, J.A. Nasados, and M.E. Doumit. 2018. Dry potato extracts improve water holding capacity, shelf life, and sensory characteristics of fresh and precooked beef patties. *Meat Science*. 149:156-162.
- Acheson, R., D. Woerner, **M.J. Colle**, C.E. Walenciak, and P.D. Bass. 2018. Distribution of marbling throughout the Longissimus lumborum of beef carcasses using an instrument-grading system. *Meat and Muscle Biology*. 2:303-308.
- Colle, M.J.**, J.A. Nasados, J.M. Rogers, D.M. Kerby, M.M. Booker, J.B. Van Buren, R.P. Richard, and M.E. Doumit. 2018. Strategies to improve beef tenderness by activating calpain-2 earlier postmortem. *Meat Science*. 135:36-41.
- Colle, M.J.**, and M.E. Doumit. 2017. Effect of extended aging on calpain-1 and -2 activity in beef *longissimus lumborum* and *semimembranosus* muscles. *Meat Science*. 131:142-145.
- Colle, M.J.**, R.P. Richard, K.M. Killinger, J.C. Bohlscheid, A.R. Gray, W.I. Loucks, R.N. Day, A.S. Cochran, J.A. Nasados, and M.E. Doumit. 2016. Influence of extended aging on beef quality characteristics and sensory perception of steaks from the *biceps femoris* and *semimembranosus*. *Meat Science*. 119:110-117.
- Colle, M.J.**, R.P. Richard, K.M. Killinger, J.C. Bohlscheid, A.R. Gray, W.I. Loucks, R.N. Day, A.S. Cochran, J.A. Nasados, and M.E. Doumit. 2015. Influence of extended aging on beef quality characteristics and sensory perception of steaks from the *gluteus medius* and *longissimus lumborum*. *Meat Science*. 110:32-39.
- Thornton, K.J., R.P. Richard, **M.J. Colle**, M.E. Doumit, M.J. de Veth, C.W. Hunt, and G.K. Murdoch. 2015. Effects of dietary potato by-product and rumen-protected histidine on growth, carcass characteristics and quality attributes of beef. *Meat Science*. 107:64-74.

#### Refereed Proceedings:

- Gouru, A., Z. Carlson, **M.J. Colle**, P. Bass, B. Murdoch, P. Rezamand, and G.K. Murdoch. 2019. Examining the effect of a physiological dose of the polyamine; spermine on myogenic regulatory transcription factor expression. American Society of Animal Science, **accepted**.
- Insausti, K., **M.J. Colle**, P.D. Bass, I. Goenaga, O. Urrutia, J.A. Mendizabal, M.J. Beriain, and B. Soret. 2019. Effect of diet on bloom time of beef. Proc. 2019 Reciprocal Meat Conf., 92.
- Prill, L.L., T.G. O'Quinn, M.D. Chao, J.L. Vipham, J.M. Gonzalez, E.A. Boyle, T.A. Houser, **M.J. Colle**, and P.D. Bass. 2019. Chef and consumer evaluation of the degree of doneness of beef strip loin steaks cooked to six endpoint temperatures. Proc. 2019 Reciprocal Meat Conf., 19.
- Prill, L.L., T.G. O'Quinn, M.D. Chao, J.L. Vipham, J.M. Gonzalez, E.A. Boyle, T.A. Houser, **M.J. Colle**, and P.D. Bass. 2019. Profiling the impact of visual degree of doneness on palatability ratings of beef strip loin steaks served to consumers of differing degree of doneness preferences. Proc. 2019 Reciprocal Meat Conf., 21.
- Puga, K.J., J.B. Van Buren, J.A. Nasados, B.J. Buseman, P.D. Bass, K. Insausti, and **M.J. Colle**. 2019. Alternative merchandising strategy of the top round. Proc. 2019 Reciprocal Meat Conf., 167.

- Uhlenkott, A.L., J. Lancaster, I.W. Riley, J.A. Nasados, **M.J. Colle**, and P.D. Bass. 2019. Using a potato by-product to replace phosphate in enhanced whole-muscle turkey breast. Proc. 2019 Reciprocal Meat Conf., 165.
- Weber, T., **M.J. Colle**, J. Nasados, and P. Bass. 2019. Using genetic panels to determine tenderness in beef cattle. Western Section – American Society of Animal Science, 52.
- Salove, K.C., **M.J. Colle**, J.M. Rogers, S.J. Gray, D.M. Kerby, J.B. Van Buren, K.J. Puga, J.A. Nasados, R.P. Richard, and M.E. Doumit. 2017. Relationship between heifer carcass maturity and beef palatability. Proc. 2017 Reciprocal Meat Conf., 93.
- Colle, M.J.** and M.E. Doumit. 2016. Role of Calpain-2 in the tenderization of extended aged beef. Proc. 2016 Reciprocal Meat Conf., 58.
- Salove, K.C., **M.J. Colle**, J.M. Rogers, S.J. Gray, M. Scott., D.M. Kerby, J.A. Nasados, R.P. Richard, and M.E. Doumit. 2016. Relationship between heifer carcass maturity and retail shelf life. Proc. 2016 Reciprocal Meat Conf., 56.
- Colle, M.J.**, R.P. Richard, M.C. Colle, W.I. Loucks, and M.E. Doumit. 2015. Effects of ascorbic acid and rosemary extract on quality characteristics and sensory perception of extended aged beef. Proc. 2015 Reciprocal Meat Conf., 71.
- Colle, M.C., R.P. Richard, **M.J. Colle**, W.I. Loucks, S.J. Gray, Z.D. Reynolds, H.A. Sutton, J.A. Nasados, and M.E. Doumit. 2015. Dry potato extract improves water holding capacity, shelf life, and sensory characteristics of beef patties. Proc. 2015 Reciprocal Meat Conf., 46.
- Colle, M.J.**, A.R. Gray, R.N. Day, W.I. Loucks, H.A. Sutton, J.A. Nasados, A.S. Cochran, R.P. Richard, and M.E. Doumit. 2014. Influence of extended aging on Warner-Bratzler shear force and sensory perception of four beef muscles. Proc. 2014 Reciprocal Meat Conf., 58.
- Colle, M.J.**, A.R. Gray, R.N. Day, W.I. Loucks, H.A. Sutton, J.A. Nasados, A.S. Cochran, R.P. Richard, and M.E. Doumit. 2013. Consequences of extended aging on retail shelf-life of four beef muscles. Proc. 2013 Reciprocal Meat Conf., 84.
- Thornton, K.J., **M.J. Colle**, J.A. Macumber, M.E. Doumit, R. Richard, C.W. Hunt, and G.K. Murdoch. 2013. Growth, carcass traits and meat color stability in steers finished on a potato-based versus a corn-based ration. Meat science and muscle biology: effects of nutrients and supplements on animal growth performance and meat quality. *J. Anim. Sci.* 91:157.
- Colle, M.J.**, J.A. Nasados, L.C. Davis, R.N. Day, A.R. Gray, C.M. Welch, N.F. Elliott, A.S. Henderson, W.I. Loucks, H.M. Mitchell, R.P. Richard, and M.E. Doumit. 2012. Consumer acceptability of beef bottom round steaks treated with calcium chloride and bromelain. Proc. 2012 Reciprocal Meat Conf., 65.
- Peer Reviewed Articles:**
- Salove, K.C., **M.J. Colle**, Z.D. Reynolds, J.A. Nasados, R.P. Richard, and M.E. Doumit. 2017. “Advanced heifer carcass maturity and beef palatability.” *The National Provisioner*. November, 2017.
- Colle, M.C., R.P. Richard, **M.J. Colle**, W.I. Loucks, S.J. Gray, Z.G. Reynolds, H.A. Sutton, J.A. Nasados, and M.E. Doumit. 2016. “Dry potato extracts and beef patties.” *The National Provisioner*. April, 2016.
- Colle, M.J.**, M.E. Doumit, and R.P. Richard. 2013. “Extended aging on retail shelf life of four beef muscles.” *The National Provisioner*. September, 2013.
- Other:** (reports, proceedings, papers, citations and references, performances)

**Refereed/Adjudicated (currently scheduled or submitted):** (provide citations)

Salove, K.C., **M.J. Colle**, J.A. Nasados, S. Gray, J. Rogers, J.B. Van Buren, K.J. Puga, G.K. Murdoch, R.P. Richard, and M.E. Doumit. 2018. Relationship between heifer carcass maturity and beef quality characteristics. *Journal of Animal Science*. In preparation.

Prill, L.L., L.N. Drey, E.A. Rice, B.A. Olson, J.M. Gonzalez, J.L. Vipham, M.D. Chao, P.D. Bass, **M.J. Colle**, and T.G. O'Quinn. 2019. Do published cooking temperatures correspond with consumer and chef perceptions of beef degrees of doneness? *Meat and Muscle Biology*. In preparation.

Prill, L.L., L.N. Drey, B.A. Olson, E.A. Rice, J.M. Gonzalez, J.L. Vipham, M.D. Chao, P.D. Bass, **M.J. Colle**, and T.G. O'Quinn. 2019. The impact of visual degree of doneness on the palatability of steaks served to consumers with differing degree of doneness preferences. *Meat and Muscle Biology*. In preparation.

**Peer Reviewed/Evaluated (currently scheduled or submitted):****Invited Presentations:**

Payback University, CHS Nutrition, Hood River, OR (2019)

Presented: *Meat science and the feed behind it*

WinCo Foods Meat Science Workshop, University of Idaho, Moscow, ID (2019)

Presented: *Poultry meat production – commercial and backyard*

Idaho Cattle Association's Annual Convention and Trade Show, Sun Valley, ID (2018)

Presented: *The final product*

Washington State Sheep Producers Annual Convention, Ellensburg, WA (2018)

Presented: *University of Idaho sheep update*

Franklin County Cattlemen's Meeting, Connell, WA (2018)

Presented: *Fake Meat & Meat Quality*

Ag Days, University of Idaho, Moscow, ID (2018)

Presented: *Basic Livestock Judging*

Sheep Scanning School, University of Idaho, Moscow, ID (2018)

Presented: *Carcass evaluation and value*

4-H Swine Project Meeting, Latah County Fairgrounds, Moscow, ID (2018)

Presented: *Raising and training hogs for the county fair*

Processed Meats Workshop, University of Idaho, Moscow, ID (2018)

Presented: *Curing and meat color formation*

Payback University, CHS Nutrition, Hood River, OR (2018)

Presented: *Meat science and the feed behind it*

WinCo Foods Meat Science Workshop, University of Idaho, Moscow, ID (2018)

Presented: *Meat Science Best Practices: Fresh meat properties, aging, and shelf life*

Garfield-Palouse 4-H Meeting, Community Center, Palouse, WA (2017)

Presented: *Market Animal Selection*

WinCo Foods Meat Science Workshop, University of Idaho, Moscow, ID (2016)

Presented: *Meat Science 102: Fresh meat properties, aging, and shelf life*

Super Saturday Leaders Training, Lewis-Clark State College, Lewiston, ID (2015-2016)

Presented: *Market Animal Selection and Livestock Judging* to 4-H adult leaders

Youth Beef Field Day, Lewiston Livestock Market, Lewiston, ID (2013-2014 & 2016)

Presented: *Feeding and Nutrition of Show Steers* and *Beef Cookery*

Sheep and Goat Field Day, Asotin County Fairgrounds, Asotin, WA (2015)

Conducted a lamb tasting session and taught youth about lamb cookery and palatability

WSU/UI Beef 300, Washington State University, Pullman, WA (2012 & 2014)

Presented: *Color Measurement and Sensory Evaluation*

Idaho Beef Summit, Pocatello, ID (2014)

Presented: *Consequences of extended aging on retail shelf-life and consumer acceptability*

Youth Swine Field Day, Asotin County Fairgrounds, Asotin, WA (2014)

Presented: *Raising show pigs*

Palouse Empire Fair Carcass Contest, Washington State University, Pullman, WA (2014)  
 Taught youth about beef carcass evaluation and discussed carcass contest rankings  
 Ag Days, University of Idaho, Moscow, ID (2012-2013)  
 Presented: *Meat Evaluation and Retail Cut Evaluation*  
 Idaho Cattlemen's Association mid-year meeting, McCall, ID (2013)  
 Presented: *Consequences of extended aging on retail shelf-life and consumer acceptability*  
 WSU/UI Swine 300, Washington State University, Pullman, WA (2013)  
 Assisted with a further processed product workshop  
 Western States Lowline Association, Hayden, ID (2013)  
 Presented: *Cattle conformation*  
 WSU/UI Lamb 300, Washington State University, Pullman, WA (2012)  
 Presented: *Measurement of color and tenderness*

**Professional Meeting Papers, Workshops, Showings, Recitals:** (provide date and location)

**Patents:** (provide title/description, patent number and date)

**Grants and Contracts Awarded:**

Functional importance of microbiota on sensory attributes of whole-muscle dry-aged beef, 2019, Idaho Beef Council; **M.J. Colle**, G.K. Murkoch, B. Murdoch, J. Williams, P. Rezamand, M. McGuire, M. McGuire, T. Mitchell, P.D. Bass (PI); \$42,890.

Effect of beef carcass size and aging period on display color, tenderness, and palatability of steaks from the inside round, 2019, National Cattlemen's Beef Association; **M.J. Colle**, G.K. Murdoch, P.D. Bass (PI); \$38,495.

Extending the shelf-life of beef steaks using acerola cherry powder and rosemary extract in order to remain competitive in the international market, 2019, Idaho Beef Council; P.D. Bass, J.A. Nasados, **M.J. Colle** (PI); \$31,108.

Vandal Brand Meats – A Legacy of Quality. Proposal to Agri Beef, 2019, Deans office and Meat Science Team Effort; \$2,000,000.

Retail display properties and consumer perception of extended aged beef topically treated with ascorbic acid and rosemary extract, 2019, University of Idaho Open Access Publishing Fund; **M.J. Colle**; \$240.

Distribution of marbling throughout the Longissimus lumborum of beef carcasses using and instrument-grading system, 2018, University of Idaho Open Access Publishing Fund; **M.J. Colle**; \$750.

Effects of beef carcass size on chilling rate, display color, pH, and tenderness on the top round subprimal, 2018, Mary A. Turner Endowment; P. Bass, **M.J. Colle** (Co-PI's); \$4,784.

Role of calpain-1 and -2 in tenderization of beef strip loin and top round during extended aging, 2016, Idaho Beef Council; **M.J. Colle**, K.C. Salove, M.E. Doumit (PI); \$24,950.

Relationship Between Heifer Carcass Maturity and Beef Flavor, 2016, Idaho Beef Council; K.C. Salove, **M.J. Colle**, M.E. Doumit (PI); \$29,650.

University of Idaho Graduate & Professional Student Association Travel Award, 2016, **M.J. Colle**; \$603.

Strategies to improve beef tenderness by activating calpain-2 earlier postmortem, 2015, Idaho Beef Council; **M.J. Colle**, R.P. Richard, M.E. Doumit (PI); \$23,500.

Relationship between heifer carcass maturity and beef quality characteristics, 2015, Idaho Beef Council; B.A. Shirts, **M.J. Colle**, R.P. Richard, G.K. Murdoch, M.E. Doumit (PI); \$40,000.

University of Idaho Graduate & Professional Student Association Travel Award, 2015, **M.J. Colle**; \$700.

Improving yield, shelf-life and palatability of beef top round, 2014, Idaho Beef Council; M.C. Colle, **M.J. Colle**, W.I. Loucks, R.P. Richard, M.E. Doumit (PI); \$29,643.

University of Idaho Graduate & Professional Student Association Travel Award, 2014, **M.J. Colle**; \$557.

Improving retail color stability of beef after extended aging, 2013, Idaho Beef Council; **M.J. Colle**, R.P. Richard, M.E. Doumit (PI); \$34,462.

Consequences of extended aging on retail shelf-life and consumer acceptability of four beef muscles, 2012, Idaho Beef Council; **M.J. Colle**, R.P. Richard, M.E. Doumit (PI); \$40,533.

**Submitted Grants:**Idaho Beef Council

Assessing de nova synthesis and breakdown of antioxidants in muscle, and blood of beef cattle, 2019, Idaho Beef Council; G. Murdoch (PI), **M.J. Colle**, P. Bass; \$48,975.

Advanced carcass maturity: developing an understanding, screening method and possible solution, 2019, Idaho Beef Council; G. Murdoch (PI), **M.J. Colle**, P. Bass; \$51,475.

Other

Utilizing cover crops for background cattle in Idaho, 2018, USDA-WSARE Research and Education Grants; C. Willimore (PI), S. Hines, J. Packham, J. Hall, M. Ellison, P. Bass, **M.J. Colle**; \$200,000.

**Unfunded Grants:**

Predicting commercial beef carcass tenderness using genetic tests, 2019, Idaho Beef Council; **M.J. Colle** (PI), P. Bass, G. Murdoch, J. Hall, B. Murdoch, J. Nasados; \$27,749.

Understanding the role of electrical stimulation on the activation of calpain-2 to improve beef tenderness, 2019, Idaho Beef Council; **M.J. Colle** (PI), P. Bass, G. Murdoch, J. Nasados; \$38,450.

Influence of dry heat cooking method and degree of doneness on beef strip loin amino acid content, fatty acid profile, fat-soluble vitamin content, and nutrient composition, 2019, Idaho Beef Council; **M.J. Colle** (PI), P. Bass, G. Murdoch, P. Rezamand, J. Nasados, M. McGuire; \$48,985

Evaluation of the beef bottom round flat as a viable and profitable alternative to beef brisket flat for use in smoked meat preparation, 2019, Idaho Beef Council; P. Bass (PI), **M.J. Colle**, G. Murdoch, P. Rezamand, J. Nasados, M. McGuire; \$17,884.

Enhancing the nutritional value of beef; altering lipids and product quality through dietary manipulation, 2019, Idaho Beef Council; G. Chibisa (PI), G. Murdoch, **M.J. Colle**, N. Goekner, M. Beckman; \$47,175.

Predicting commercial beef carcass tenderness using genetic tests, 2019, National Cattlemen's Beef Association Product Quality Research; **M.J. Colle** (PI), P. Bass, G. Murdoch, J. Hall, B. Murdoch, J. Nasados; \$28,600.

Utilizing electrical stimulation to improve beef tenderness by activating calpain-2, 2019, National Cattlemen's Beef Association Product Quality Research; **M.J. Colle** (PI), P. Bass, G. Murdoch, J. Nasados; \$39,901.

Functional importance of microbiota on sensory attributes of whole-muscle dry-aged beef, 2019, National Cattlemen's Beef Association Product Quality Research; P. Bass (PI), **M.J. Colle**, G. Murdoch, B. Murdoch, J. Williams, P. Rezamand, M. McGuire, M. McGuire, T. Mitchell; \$42,930.

UI BBQ Boot Camp and Vandal Griller Certifications, 2018, University Budget and Finance Committee, **M.J. Colle** (PI); \$46,394

Effect of timing of beef-containing complementary food on nutritional status, enteric microbiome, and behavior of infants: a randomized controlled trial, 2018, Gerber Foundation, **M.J. Colle** (PI), P. Rezamand, M. McGuire, L-L. Tsao, J. Williams; \$349,000.

Sheep Science Experiential Learning: Cultivating an Advanced and Progressive Sheep Education Program for the Pacific Northwest, 2018, Washington State Sheep Producers-Association Endowment for Sheep Teaching and Research Fund Application, **M.J. Colle** (PI), A. Ahmadzadeh, D. Konetchy; \$4,899.

Multidisciplinary Graduate Training: Sustainable Beef Production – Effect of Beef Cow Environment, 2017, USDA National Needs Fellowship Grant, **M.J. Colle** (PI); \$241,000.

Enhancing the value of the beef top sirloin butt (NAMI 184) through muscle specific fabrication into custom cuts, 2018, Product Quality RFP - National Cattlemen's Beef Association, P. Bass (PI), **M.J. Colle**, P. Rezamand, G. Murdoch; \$43,705.

Influence of dry heat cooking method and degree of doneness on beef strip loin amino acid content, fatty acid profile, fat-soluble vitamin content, and nutrient composition, 2018, Product Quality RFP - National Cattlemen's Beef Association, **M.J. Colle** (PI), P. Bass (Co-PI), G. Murdoch, P. Rezamand; \$59,100.

Functional Importance of Microbiota on Sensory Attributes of Whole-Muscle Dry-Aged Beef, 2018, Product Quality RFP - National Cattlemen's Beef Association, D. Clark (PI), T. Mitchell, P. Bass, **M.J. Colle**; \$49,990.

Seed Grant – Understanding the Activation of Calpain-2, 2018, Office of Research and Economic Development Seed Grant Program, **M.J. Colle** (PI); \$12,000

Refrigerated truck acquisition for improving meat science product transportation, 2018, UI Office of Research and Economic Development, P. Bass (PI), **M.J. Colle**, G. Murdoch; \$72,750.



Influence of dry heat cooking method and degree of doneness on beef strip loin amino acid content, fatty acid profile, fat-soluble vitamin content, and nutrient composition, 2018, Human Nutrition RFP - National Cattlemen's Beef Association, P. Bass and **M.J. Colle** (PIs) G. Murdoch and P. Rezamand (Co-investigators); \$59,100.

Role of calpain-1 and -2 in tenderization of beef strip loin and top round during extended aging, 2016, National Cattlemen's Beef Association; **M.J. Colle**, M.E. Doumit (PI); \$29,875.

Discover Great Beef, 2014, Idaho Beef Council; **M.J. Colle**, M.E. Doumit (PI); \$17,738.

Optimization of *sous vide* cookery to improve beef bottom round tenderness and fluid holding capacity, 2012, National Cattlemen's Beef Association; **M.J. Colle**, R.P. Richard, M.E. Doumit (PI); \$41,640.

Effect of extended aging on retail shelf-life and consumer acceptability of four beef muscles, 2012, National Cattlemen's Beef Association; **M.J. Colle**, R.P. Richard, M.E. Doumit (PI); \$31,096.

#### **In Kind Donations:**

Kings River Ranch, 2018, Donated gift dollars and in-kind to help teach new graduate assistants about carcass data collection and Warner-Bratzler Shear Force analysis, \$5,000 cash, \$5,380 in-kind meat product.

Basic American Foods, 2018, Donation for student travel to a meat science conference, \$500.

#### **Honors and Awards:**

Gamma Sigma Delta Outstanding Graduate Student (2016)

GPSA Outstanding Graduate Student Award (2016)

Farm Foundation Cultivator (2015)

Outstanding University of Idaho AVS Graduate Student (2012-2013)

First Place, Reciprocal Meat Conference, M.S. Division, Research Poster Competition (2013)

#### **SERVICE:**

##### **Major Committee Assignments:**

Western Section - American Society of Animal Science (WSASAS) Regional Academic Quadrathlon Coordinator, 2019

Idaho State FFA Livestock Judging Contest Coordinator, 2019

North Idaho Meat CDE, 2019

Beef Feedlot Manager Committee, 2019

Promotion Review Committee, 2018

Curriculum Committee, 2018

Feed Mill Manager Committee, 2018

VandalStar Workgroup, 2018

Associate Beef Unit Manager Committee, 2017

##### **Professional and Scholarly Organizations:**

American Meat Science Association (2012-Present)

National FFA Alumni Association (2012-Present)

American & Wisconsin Simmental Association (2004-Present)

UI Graduate and Professional Student Association (GPSA) Senator (2014-2016)

UI GPSA Teaching Excellence and Graduate Achievement Committee Chair (2016)

##### **Outreach Service:** (Including popular press, interview articles, newspaper articles, workshops-seminars-tours organized, Extension impact statements)

Ad hoc reviewer for Meat and Muscle Biology, 2019

Assist incoming students with registering for classes at UI Idaho Bound and throughout the year, 2018-present

Give farm tours to prospective students and visiting universities, 2017-present

Evergreen Show, Moses Lake, WA, 2018

Promoted UI at college recruitment booth

Ad hoc reviewer for Canadian Journal of Animal Science, 2018

Ad hoc reviewer for PLOS ONE, 2017-2018

##### **Community Service:**

Garfield Palouse FFA Volunteer (2017-2019)

Volunteer at Willmar United Methodist Church Community Meal (2016-2017)  
 Volunteer at the Salvation Army Soup Kitchen (2015)

**Honors and Awards:**

American FFA Degree (2008)

**PROFESSIONAL DEVELOPMENT:**

**Teaching:**

Hosted Dr. Kizkitza-Meat Scientist from the Public University of Navarra (2018 & 2019)  
 CALS New Faculty Orientation (2018)  
 Inclusion by Design, DESIGNING FOR INCLUSIVE TEACHING AND LEARNING, Dr. Lindsay Bernhagen (2018)  
 UI 14<sup>th</sup> Annual Advising Symposium, THE PIVOT: MOMENTS THAT MATTER (2017)

**Scholarship:**

72<sup>nd</sup> Reciprocal Meat Conference, Colorado State University, Fort Collins, CO (2019)  
 Session Moderator for: Beef Demand Determinants: Research Summary and Implications- Dr. Glynn Tonsor  
 99<sup>th</sup> National Block & Bridle Convention, New Orleans, LA (2019)  
 NCBA Cattle Industry Convention, New Orleans, LA (2019)  
 71<sup>st</sup> Reciprocal Meat Conference, Kansas City, MO (2018)  
 Better Cattle Stockmanship, Lewiston, ID (2018)  
 Attended Dr. Temple Grandin's speech: *Better Cattle Stockmanship*  
 69<sup>th</sup> Reciprocal Meat Conference, Angelo State University, San Angelo, TX (2016)  
 Poster presentation: *Role of calpain-2 in the tenderization of extended aged beef*  
 American Association of Meat Processors Conference, Springfield, IL (2015)  
 Assisted with the cured meats championship judging  
 68<sup>th</sup> Reciprocal Meat Conference, University of Nebraska-Lincoln, Lincoln, NE (2015)  
 Poster presentation: *Effects of ascorbic acid and rosemary extract on quality characteristics and sensory perception of extended aged beef*  
 Farm Foundation Round Table Meeting, Columbus, OH (2015)  
 Poster presentation: *Consequences of extended aging on four beef muscles*  
 North American Meat Institute Management Conference, Carlsbad, CA (2015)  
 American Association of Meat Processors Conference, Milwaukee, WI (2014)  
 67<sup>th</sup> Reciprocal Meat Conference, University of Wisconsin-Madison, Madison, WI (2014)  
 Poster presentation: *Influence of extended aging on Warner-Bratzler shear force and sensory perception of four beef muscles*  
 66<sup>th</sup> Reciprocal Meat Conference, Auburn University, Auburn, AL (2013)  
 Poster presentation: *Consequences of extended aging on retail shelf-life of four beef muscles*  
 65<sup>th</sup> Reciprocal Meat Conference, North Dakota State University, Fargo, ND (2012)  
 Poster presentation: *Consumer acceptability of beef bottom round steaks treated with calcium chloride and bromelain*

**Outreach:**

Northwest Meat Processors Meeting, Anacortes, WA (2019)  
 Co-head judge for the cured meats contest  
 Northwest Meat Processors Meeting, Coeur d'Alene, ID (2018)  
 Served as a judge for the cured meats contest  
 Washington Cattlemen's and Cattlewomen's Association 2017 Annual Convention & Tradeshow, Three Rivers Convention Center, Kennewick, WA (2017)  
 Northwest Meat Processors Meeting, University of Idaho, Moscow, ID (2016)  
 Served as a judge for the cured meats contest  
 Pacific Northwest Let's Grow Lamb & Wool Symposium, Walla Walla, WA (2015)  
 Northwest Meat Processors Meeting, Seaside, OR (2015)  
 Served as a judge for the cured meats contest  
 Pacific Northwest Young Cattlemen's Conference, Colombia Basin, WA (2015)

Northwest Meat Processors Meeting, University of Idaho, Moscow, ID (2013)

Served as a judge for the cured meats contest

Northwest Meat Processors Meeting, Oregon State University, Corvallis, OR (2012)

Served as a judge for the cured meats contest

**Administration/Management:**