

Broc A. Sandelin
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Education

University of Arkansas	Ph.D-Animal Science	2005
University of Arkansas	M.S. Animal Science	2001
Oklahoma Panhandle State University	B.S. Animal Science	1999

Employment

March 2017-TBD

Interim Department Chair, Human Nutrition and Food Science Department

Responsible for day to day operation of Human Nutrition and Food Science Department consisting of 21 FTE faculty, 2 support staff, 653 undergraduate and 31 graduate and dietetic internship students. Financial and Administrative Responsibilities on budget of \$1.89 million.

September 2010-Present (75% administration 25% teaching)

Department Chair, Associate Professor (2009-2014) & Professor (2014-Present)
Department of Animal and Veterinary Science California State Polytechnic
University, Pomona, CA

In addition to below responsibilities of Associate Farm Director, responsible for day-to-day operations of Animal and Veterinary Science Department consisting of 565 undergraduate students, 14 FTE faculty and 7 support staff, Financial and administrative responsibilities on budget of \$1.87 million. Department has two majors: Animal Science (Pre-Vet and Animal Health Science (4yr Veterinary Technology B.S Program). Responsible for Assessment, and AVMA Accreditation for 4 yr Veterinary Technology Program (Accreditation with assistance from Director of Vet-Tech program).

Recently oversaw remodel of existing student dorms, classrooms and offices at our livestock-teaching units (\$410,00 project), \$145,000 in recent remodel for USDA/AVMA

accreditation requirements for sheep/beef units and \$285,000 USDA/AVMA remodel for swine facility.

Currently talking with large corporations, alumni and other donors for funding of Teaching Clinic for our Veterinary Technician Program. Working with Facilities Planning and Management on plans for this clinic.

Responsible for Strategic planning, fundraising, course scheduling, curriculum, and assessment for both programs within the Department.

May 2015-Nov 2015

Interim Director W.K. Kellogg Arabian Horse Center

College of Agriculture, California State Polytechnic University, Pomona, CA

Responsible for day to day operations of 115 head equine facility with 5 full time staff and 20+ student employees. Worked with Facilities Management on two capital improvement projects (covered arena and sprinkler replacement).

June 2009- Sept 2010 (80 % Teaching, 20% Administration)

Associate Professor (Granted Early Promotion to Associate Professor and Early Tenure) Department of Animal and Veterinary Science California State Polytechnic University, Pomona, CA and Associate Farm Director College of Agriculture

In addition to teaching duties from Assistant Professor (below) my responsibilities of Associate Farm Director include financial and administrative oversight of 3 full time staff members, approx 15 student employees and an annual budget of approximately \$430,000. This includes our beef, sheep and swine teaching farms and abattoir.

Developed non-thesis masters Program in Animal Science in 2009.

Aug 2005- June 2009 (100% Teaching Appointment)

Assistant Professor Department of Animal and Veterinary Science California State Polytechnic University, Pomona, CA

Teach courses in beef production, domestic animal genetics, animal breeding, equine genetics and experimental design. Research involved in mitochondrial biochemistry and its relationship with feed efficiency in ruminants. Proteomics research developing novel biological marker for efficiency in ruminants. Genomic research in canines. Graduate coordinator for AVS (2006-2009) and College Wide (2007-2009).

Aug 2001 to July 2005:

Graduate Research and Teaching Assistant at University of Arkansas. Assisted in designing, conducting, analyzing, and reporting results of research trials in the areas of:
1) Mitochondria efficiency/function and its relationship to feed efficiency in ruminants

- 2) Proteomics studies involving mitochondrial proteins and feed efficiency
- 3) Growth curve data and it's relationship to traits of economic importance
- 4) Involved in Southern Regional Breeding Project S-1013 "Genetic (co)variance of parasite resistance, temperament, and production traits of traditional and non-*Bos indicus* tropically adapted breeds"

Presentation of research results at scientific meetings and seminars. Aid in advisement of course work for several Master's students.

Aug 1999-July 2001:

Graduate Research and Teaching Assistant at University of Arkansas. Assisted in designing, conducting, analyzing, and reporting results of research trials in the areas of:

- 1) Growth curve development and performance relative to growth curve parameters
- 2) Dairy heifer cross-breeding studies utilizing different forages
- 3) Involved in Southern Regional Breeding Project S-277 "Breeding to optimize maternal performance and reproduction of beef cows in the Southern Region"

Presentation of research results at scientific meetings and seminars.

Teaching Experience

2005-Present California State Polytechnic University, Pomona Courses taught include:

AVS 112/114L Beef Production
AG 100 Orientation to Agriculture
AG 101 Agriculture and the Modern World
AVS 305 Animal Genetics
AVS 345 Equine Genetics and Breeding
AVS 404/404A Animal Breeding
AVS 463 Senior Seminar
AVS 545 Design and Analysis of Experimental Research
AVS 598 Graduate Seminar
AG 500 Introduction to Graduate Research

Overall Course Evaluations on scale 1-5 (1=Excellent, 5=Poor) for 11 years and 29 courses was a 1.44.

Currently teach one completely online course in Domestic Animal Genetics and one Hybrid Course in Animal Breeding. Multitude of Experience in Online learning techniques (taught first class in College of Agriculture to be offered completely online)

1999-2005 University of Arkansas, Department of Animal Science: Courses as a Teaching Assistant included:

ANSC 3133 Animal Breeding and Genetics
ANSC 4322 Cow/Calf Management
ANSC 2213 Domestic Animal Behavior

Service

Numerous 4-H and FFA group tours and talks (2006-2017)

Community Outreach activities via our AGRIsapes campus facility (2010-2017)

- Milking Demonstrations
- Shearing Demonstrations
- Petting Farm
- Other Activities

FFA Ag Field Day Cal Poly Pomona 2005-2011

Livestock supervisor for livestock judging contest. Provided official placing and took reasons for approx 60 FFA students each year

Cal Poly Pomona Feeder Calf Sale- 2005-2008

Served as faculty supervisor for annual feeder calf sale. Provided workshops on fitting and showing cattle as well as sell approx. 25 hd/year to 4-H and FFA students.

Attended and Participated in annual meeting of the USDA Regional Project: WERA-001 committee entitled "Beef Cattle Breeding in the Western United States" (June 2007)-Due to budget constraints was unable to attend in subsequent years

Southern Region Development Committee. 2003-2005

Assisted with development of proposed regional research project involving quantitative and molecular genetics, more specifically assisted with transfer of information to and from technical committee members among the 13 southern states involved in the project and also conducted a comprehensive literature review and aided with protocol development.

4-H and FFA Regional Judging Clinic. Spring 2001-2004.

Determined reasons scores for individuals participating in contest
Discussed scores and appropriate reasons for placing classes

Arkansas Cattleman's Association Annual Meeting 1999-2004

Set up departmental display and recruited students for Animal Science Department
Provided knowledge about University of Arkansas, Department of Animal Science to prospective students

Annual Beef Quiz Bowl: Prepared and proctored questions, organized graduate students and faculty to proctor and score competition.

Awards and Distinctions

Outstanding Faculty Advisor, College of Agriculture, 2009-2010 and 2014-2015

Oklahoma Panhandle State University Alumni Success Story. 2014.

Outstanding Graduate Student Animal Science Department, University of Arkansas, 2003

Animal Science Graduate Student Association, University of Arkansas, 1999 – 2005

President –2001-2002, 2003-2004, 2004-2005

Established and maintained Undergraduate Student Scholarship

Outstanding Animal Science Student, Oklahoma Panhandle State University, 1999

3rd Place American Society of Animal Science Undergraduate Student Competition, Midwestern Section, 1998.

Delegate to New Zealand for the International 4-H Youth Exchange, 1995

Won awards for Most improved Rodeo in West Coast region in 2006 and 2007

Honorary and Professional Associations

American Society of Animal Science,

Gamma Sigma Delta,

Sigma Xi, 2002

National Intercollegiate Rodeo Association-Member/Coach

National Cattlemen's Beef Association

Grants Received:

W.C. Hughes, H.M. Greene and **B.A. Sandelin**. 2009. The effects of extruded feed supplements in horses (Alfalfa Formula and Alfalfa Free Formula). Canidae Natural Pet Foods. **\$20,659**

B.A. Sandelin. 2007 "Canine Breed Profiling: Neuroendocrine Polymorphisms associated with Behavioral Phenotypes". Research, Scholarship, and Creative Activity (RSCA), Office of Research and Sponsored Programs, Cal Poly Pomona **\$5,000**

B.A. Sandelin, 2005-2007. Association of Mitochondrial Biochemistry with Feed Utilization in Cattle” **\$40,000** Cal Poly Pomona, Agriculture Research Initiative Program

A.H. Brown, Jr., W.G. Bottje, and **B.A. Sandelin**. 2001-2004. Investigation of Relationship Between Muscle Mitochondria and Feed Efficiency in Ruminants: Biochemical Analysis **\$80,000**, Arkansas Agricultural Experiment Station

Grants Applied for-Not Funded:

J. C. Alderson, V. Mellano, L.A. Pettey and **B.A. Sandelin**. 2012. Hydroponic Fodder as an Alfalfa Replacement in Horses, \$26,916. Submitted to Agriculture Research Institute

H. Ahmadzadeh, M. Ewers, K. Brown, Y. Lee, **B. Sandelin**, Mingheng Li, S. Lyon. CSU-Agricultural Research Initiative. 2008 A pilot scale demonstration coupling agricultural waste management to renewable fuel production. \$224, 868

B.A. Sandelin. 2007 Morris Animal Foundation First Award Investigator: “Canine Neuroendocrine Polymorphisms Associated with Behavioral Phenotypes” \$70,000

B.A. Sandelin. 2007 American Kennel Club: General Research “LD mapping of the canine genome for haplotypes that contribute to behavioral traits” \$37,300

B.A. Sandelin and J.F. Taylor. 2007 NIH-SCORE – “Genome Wide Association Mapping in Canine for Traits Underlying Behavioral Phenotypes” \$300,000

B.A. Sandelin. 2006 Investigation of Mitochondrial Biochemistry and its Relationship to Feed Efficiency in Cattle, \$5,000. Research, Scholarship, and Creative Activity (RSCA), Office of Research and Sponsored Programs, Cal Poly Pomona.

B.A. Sandelin 2006 “Source Identification for Phosphorous, Nitrates and Salts in the San Jacinto Watershed and Identification of Technologies and Alternate Control Measures”, \$22,500. Western Riverside County Agriculture Coalition (Grant was for Statistical Analysis of collected data)

B.A. Sandelin and S.E. Murinda. 2006 “Enhancing Instruction and Research Capability of the Cal Poly Pomona, Multidisciplinary, College of Agriculture Biotechnology Core-Lab”, 2005 USDA, Hispanic Serving Institutions, Capacity Building Grant. \$199,560

Research/Industry Efforts:

Serving as Director of Research and Development for Just Food for Dogs. (2012-2017)
Ongoing research projects on feeding USDA Whole dog food compared to traditional kibble

on health and immune function in dogs. Lead research team of 3 researchers from Cal Poly Pomona and Western University School of Veterinary Medicine

Ongoing Project with UC Riverside Entomology Department on Novel organic methods for Fly control in Cattle.

Joint research project with Dr. Troy Wistuba, Morehead State University, entitled "Using ultrasound as a quantitative tool to assess body condition score in Quarter and thoroughbred horses"-2006

Directed McNairs Scholar program scholar on Project entitled "Isolation and quantification of mitochondria from lymphocytes in cattle" 2006

Served on 8 graduate students committees and assisted two of those with data analysis and one with technical lab support. I have served as major professor for one project (graduated Winter 2008) and currently as standing member on 2 current M.S. thesis projects,

Providing Statistical Analysis on Project entitled "The effects of extruded feed supplements in horses (Alfalfa Formula and Aflafla Free Formula)"

Worked on Research project with Private Company on Methane Capture and Manure Management. This project turns methane and manure into electricity.

Worked with Private Corporation on proposals to start up vertically integrated Beef Production systems in Jilin and Inner Mongolia regions of China.

Department, College and University Service

Animal and Veterinary Science:

Chair Search Committee for 6 tenure track Faculty Lines and 6 staff positions

Faculty advisor and Coach for Cal Poly Pomona Rodeo Team (2005-2016)

Faculty Advisor for Pre-Vet Club (2014-2017)

Faculty Advisor for Livestock Show Team (2014-2017)

Faculty Mentor for McNairs Scholar Program (2005-2007)

Thesis Committee Member for 8 Graduate students in Animal and Veterinary Science and 2 graduate students in Human Nutrition and Food Science (2005-2012) 2 as Major Professor in AVS.

Member Department of Animal and Veterinary Science Curriculum Committee (2005-2017)

Member Department of Animal and Veterinary Science Scholarship Committee (2005-2017)

Graduate Program Coordinator (2007-2014)

Research mentor for 2 students for the SEES/TCW Health Professions Program

College of Agriculture:

Member College Leadership Team (2008-2017)
Department Representative to College of Agriculture Advising Committee (2005-2006)
College of Agriculture Consulting Statistician (2005-2009)
Member of Coordinating Council, College of Agriculture (2005-2007)
Livestock Coordinator for Ag Field Day (2005-2009)
Graduate Program Coordinator (2007-2010)
Chair Search Committee for Dean, College of Agriculture (2013)
Chair Search Committee for Department Chair for Agriculture Business/Ag Science Department (2017)
Pumpkin Festival Student Club Leader (2009-2017)
Chair Search Committee for Director of W.K. Kellogg Arabian Horse Center (2016)
Member of Farm Leadership/Executive Committee (2012-2017)

University Wide:

Member Senate Budget Committee (2015-2017)
Member of Academic Affairs Budget Advisory Committee (2012-2017)
Member Administrative Affairs Budget Advisory Committee (2012-2017)
Member Search Committee VPAA-CFO (2012-2013)
Member of University Fee Committee (2011-2014)
Faculty Senator for the College of Agriculture (2005-2009)
Member Technology Committee of the Academic Senate (2005-2006)
Department Representative to the Extended Graduate Council (2006-2009)
Search Committee for Director of Student Health Services (2006-2008)
Instructionally Related Activities Committee Member (2007-2009)
Member of IT Governance Executive Committee (2007-2008)
Chair of the Technology Committee of the Academic Senate (2007-2008)
Member of University Strategic Planning Committee (2016-2017)

Community Service, Other

Started Partnership with non-profit Organization, Danny's farm in 2011. Their mission of employing young adults with developmental disabilities has been able to continue due to this partnership. This partnership also benefits the Department and College as proceeds from operations are split and go towards our Ag-Aid to Instruction accounts to help support the farming operations. This is also a great community outreach program and we have had tremendous support for the local community coming to the Farm store where the petting farm is located. In the last 5 years Danny's farm has served over 50,000 children though the mobile petting farms going to local schools and our on campus petting farm.

Gave numerous tours of Agriculture Facilities to a wide range of people from International Agriculture Professionals from China to groups of Elementary kids from local schools.

Facilitated the Dream Foundation to visit campus and learn about Agriculture. This foundation brought 60 kids from Inner City LA to visit our Farm Store and petting farm. ABC news filmed the event and was a great public relations story for our community outreach in Agriculture

Since becoming Chair I have started an Annual Back to School BBQ for all faculty, staff and students in the Animal & Veterinary Science Department. This happens on the first day of classes and allows Freshman to meet all the faculty/staff and other students. We serve about 450 people each year-It is also important to note that an AVS Alum donates food for the BBQ each year.

Member Pierce College Equine Advisory Board (2011-2017)

Member Pierce College Agriculture Advisory Board (2012-2017)

Member Stanbridge College RVT Advisory Board (2014-2017)

Member Mt Sac Community College Agriculture Advisory Board (2013-2017)

Provide training for Private Veterinary Technician Students in Bovine Essential Skills for AVMA Accreditation (TPR, Halter Placement, Vaccinations, Tail Bleeding, Jugular Venipuncture, Hoof Trimming, Chute Operation, Cattle movement and behavior etc)

Gave Seminar to Biewer Terrier Club of Southern California on Canine Genetics

Developed brochure to raise awareness to Hispanic Community on Parvovirus in Dogs and Cats Via Senior Project

Interviewed for PBS documentary entitled: Food: A Project Envision Documentary that was featured on PBS.

Facilitated numerous commercial, TV photo and video shoots using our farm facilities and animals as a way to generate income for our programs. Have worked with CBS, Discovery Channel, Ford motor Company and many others.

Refereed Journal Publications:

1. Fowler, F.E., J. Chirico, **B.A. Sandelin** and B.A. Mullins. 2017. Field Trials of Fatty Acids and Geraniol Applied to Cattle for Suppression of Horn Flies, *Haematobia irritans* (Diptera: Muscidae), With Observations on Fly Defensive Behaviours Journal of Veterinary Parasitology (Submitted)
2. Pettey, L.A., Chavez, O.E., **Sandelin, B.A.**, and Tegzes, J.H. 2016. Effects of Fresh Prepared, Whole Food Canine Maintenance Diets on Clinically Measurable Blood Parameters in Healthy Dogs. JAVMA. (Submitted November 2016)
3. Fowler, F.E., J. Chirico, **B.A. Sandelin** and B.A. Mullins. 2015. Seasonality and Diapause of *Musca autumnalis* (Diptera: Muscidae) at its Southern Limits in North America, with Observations on *Haematobia irritans* (Diptera: Muscidae) J. Med. Entomol. 52(6) 1213-1224
4. Soto, D., F. E. Fowler, **B. A. Sandelin** and B. A. Mullens. 2014. *Musca autumnalis* (Diptera: Muscidae) and the host-specific nematode *Paraiotonchium autumnale* (Tylenchida: Iotonchiidae) in southern California. J. Med. Entomol. 51: 288-292.
5. Baublits, R. T., F. W. Pohlman, A. H. Brown, Jr., Z. B. Johnson, D. C. Rule, D. O. Onks, C. M. Murrieta, C. J. Richards, **B. A. Sandelin**, H. D. Loveday, and R. B. Pugh. 2008. Correlations and prediction equations for fatty acids and sensory characteristics of beef longissimus rib steaks from forage-fed cattle and retail USDA Choice and Select rib steaks. J. Muscle Foods Vol 20: Issue 1 pg1-17
6. A. H. Brown, Jr., P. K. Camfield, C. W. Rowe, L. Y. Rakes, F. W. Pohlman, Z. B. Johnson, G. T. Tabler, Jr., **B. A. Sandelin**. 2007. Effect of Beef Growth Type on Cooking Loss, Tenderness, and Chemical Composition of Pasture- or Feedlot-developed Steers. Asian-Aust. J. Anim. Sci. Vol. 20 No. 11 : 1746
7. A. H. Brown, Jr., P. K. Camfield, R. T. Baublits, F. W. Pohlman, Z. B. Johnson, C. J. Brown, G. T. Tabler, Jr., **B. A. Sandelin**. 2006. Effects of Size and Rate of Maturing on Carcass Composition of Pasture- or Feedlot- Developed Steers Asian-Aust. J. Anim. Sci. Vol. 19 No. 5 : 661
8. Baublits, R. T., **A. H. Brown, Jr.**, F. W. Pohlman, D. C. Rule, Z. B. Johnson, D. O. Onks, C. M. Murrieta, C. J. Richards, H. D. Loveday, **B. A. Sandelin**, and R. B. Pugh. 2006. Fatty acid and sensory characteristics of beef from three biological types of cattle grazing cool-season forages supplemented with soyhulls. Meat Sci. 72:100-107

9. Baublits, R. T., F. W. Pohlman, A. H. Brown, Jr., D. C. Rule, Z. B. Johnson, D. O. Onks, C. M. Murrieta, **B. A. Sandelin**, C. J. Richards, H. D. Loveday, and R. B. Pugh. 2006. Comparison of fatty acid and sensory profiles of beef from forage-fed cattle with retail United States Department of Agriculture Choice and Select beef. *J. of Muscle Foods* 17:311-329.
10. M.A. Brown, A.H. Brown Jr., and **B.A. Sandelin**. 2005. Genotype x Environment Interactions in Brahman, Angus, and Reciprocal Cross Cows and their Calves. *J. Anim. Sci.* 83:Suppl
11. Baublits, R.T., A.H. Brown, Jr., F.W. Pohlman, D.C. Rule, Z.B. Johnson, D.O. Onks, C.M. Murrieta, C.J. Richards, H.D. Loveday, **B.A. Sandelin**, R.B. Pugh. 2005. Fatty acid and sensory characteristics of beef from three biological types of cattle grazing cool-season forages supplemented with soyhulls. *Meat Sci.* 72:100-107.
12. **B.A. Sandelin**, A.H. Brown Jr., Z.B. Johnson, J. A. Hornsby, and R.T. Baublits. 2005
13. Postpartum Maternal Behavior Score in Six Breed Groups of Beef Cattle. *The Professional Animal Scientist.* 21:13-16.
14. A.H. Brown, Jr., P.K. Camfield, Z.B. Johnson, F.W. Pohlman, C.J. Brown, L.Y. Rakes, **B.A. Sandelin** and R.T. Baublits. 2004. Interaction of Beef Growth Type by Production System for Carcass Traits of Steers. *Asian-Aust. J. Anim. Sc.* 18:2, pg 259-266.
15. R.T. Baublits, A.H. Brown, Jr., F.W. Pohlman, Z.B. Johnson, D.O. Onks, **B.A. Sandelin**, and R.E. Morrow. 2004. Carcass and color characteristics of three biological types of cattle grazing cool-season forages supplemented with soyhulls. *Meat Science* 68:303-309
16. M.A. Brown, A.H. Brown, Jr. and **B.A. Sandelin**. 2003. Seasonal weight changes and prepartum weight:height ratio in Angus and Brahman cows grazing common bermudagrass or Endophyte-infected tall fescue. *The Professional Animal Scientist* 19:204-210
17. R.T. Baublits, A.H. Brown Jr., Z. B. Johnson, C.F. Rosenkrans Jr., R.W. Rorie, and **B.A. Sandelin**. 2003. Variation in the percentage of female births over time in five breeds of registered beef cattle. *The Professional Animal Scientist.* 19:204-210
18. A.M. Stelzleni, T.L. Perkins, A.H. Brown, Jr., Z.B. Johnson, F.W. Pohlman and **B. A. Sandelin**. 2003. Variation in Ultrasonically determined intramuscular fat in Brangus cattle. *The Professional Animal Scientist.* 19:39-43
19. **B.A. Sandelin**, A.H. Brown, Jr., M.A. Brown, Z.B. Johnson, D.W. Kellogg, and A.M. Stelzleni. 2002. Genotype x environment interaction for mature weight and rate of maturing for Angus, Brahman and Reciprocal Cross Cows grazing common bermudagrass or endophyte infected fescue. *J. Anim. Sci.* 80:3073-3076.

20. A.M. Stelzleni, T.L. Perkins. A.H. Brown, Jr., Z.B. Johnson, F.W. Pohlman and **B.A. Sandelin**. 2002. Genetic Parameter Estimates of Yearling Live Animal Ultrasonic Measurements in Brangus Cattle. *J. Anim. Sci.* 80:3150-3153
21. A.H. Brown, Jr. D.W. Kellogg, Z.B. Johnson, R.W. Rorie. W.K. Coblenz, **B.A. Sandelin** and K.E. Lesmiester. 2001. Growth, Luteal Activity and Pregnancy Rates of Three Types of Dairy Heifers in a Forage Based Development Program. *The Professional Animal Scientist* 17: 20-26.
22. A.H. Brown, Jr., C.F. Rosenkrans, Jr., Z.B. Johnson, M.L. Looper, **B.A. Sandelin** and E.L. Oxford. 2000. Heritability of Lactate Dehydrogenase Activity in Replacement Beef Heifers. *Russian Journal Agricultural Science.* 6:40-42.

Non-Refereed Publications

1. **B.A. Sandelin**, A.H. Brown Jr., Z.B. Johnson, J. A. Hornsby, and R.T. Baublits. 2004 Postpartum Maternal Behavior Score in Six Breed Groups of Beef Cattle. Arkansas Animal Science Departmental Report, 2004. pg 101-105
2. **B.A. Sandelin**, A.H. Brown, Jr., M.A. Brown, Z.B. Johnson, and R.T. Baublits. 2003. Milk Production in Four Divergent Biological Types Grazing Common Bermudagrass or Endophyte-Infected Tall Fescue. Arkansas Animal Science Departmental Report, 2003. pg 105.
3. M.A. Brown, A.H. Brown, Jr. and **B.A. Sandelin**. 2003. Seasonal weight changes and prepartum weight:height ratio in Angus and Brahman cows grazing common bermudagrass or Endophyte-infected tall fescue. Arkansas Animal Science Departmental Report, 2003. pg 76.
4. R.T. Baublits, A.H. Brown, Jr., F.W. Pohlman, Z.B. Johnson, D.O. Onks, **B.A. Sandelin**, and R.E. Morrow. 2004. Carcass and color characteristics of three biological types of cattle grazing cool-season forages supplemented with soyhulls. Arkansas Animal Science Departmental Report, 2003. pg 9.
5. R.T. Baublits, A.H. Brown, Jr., F.W. Pohlman, Z.B. Johnson, D.O. Onks, **B.A. Sandelin**, and R.E. Morrow. 2004. Chemical, Fatty acid and Sensory Characteristics of Beef from Cattle Grazing Forages Supplemented with Soyhulls vs. USDA Choice and Select Beef. 2004.. Arkansas Animal Science Departmental Report, 2003. pg 12.
6. M.A. Brown, A.H. Brown, Jr., and **B.A. Sandelin**. 2002. Relationship of milk yield and quality to preweaning gain of calves from Angus, Brahman and reciprocal-cross cows on different forage systems. Arkansas Animal Science Departmental Report, 2002. pg 50.

7. **B.A. Sandelin**, A.H. Brown, Jr., M.A. Brown, Z.B. Johnson, D.W. Kellogg, and A.M. Stelzleni. 2002. Maternal performance of four divergent biological types resulting from Angus, Brahman and reciprocal cross cows grazing endophyte-infected tall fescue or common bermudagrass. Arkansas Animal Science Departmental Report, 2002. pg 55
8. A.M. Stelzleni, T.L. Perkins, A.H. Brown, Jr., Z.B. Johnson, F.W. Pohlman and **B. A. Sandelin**. 2002. Variation in Ultrasonically determined intramuscular fat in Brangus cattle. Arkansas Animal Science Departmental Report, 2002. pg 70
9. **B.A. Sandelin**, A.H. Brown, Jr., M.A. Brown, Z.B. Johnson, D.W. Kellogg, and A.M. Stelzleni. 2001. Genotype x environment interaction for mature weight and rate of maturing for Angus, Brahman and Reciprocal Cross Cows grazing common bermudagrass or endophyte infected fescue. Arkansas Animal Science Departmental Report, 2001 pg 53
10. A.M. Stelzleni, T.L. Perkins. A.H. Brown, Jr., Z.B. Johnson, F.W. Pohlman and **B.A. Sandelin**. 2001. Genetic Parameter Estimates of Yearling Live Animal Ultrasonic Measurements in Brangus Cattle. Arkansas Animal Science Departmental Report, 2001. pg 49
11. A.H. Brown, Jr. D.W. Kellogg, Z.B. Johnson, R.W. Rorie. W.K. Coblenz, **B.A. Sandelin** and K.E. Lesmiester. 2001. Growth, Luteal Activity and Pregnancy Rates of Three Types of Dairy Heifers in a Forage Based Development Program. Arkansas Animal Science Departmental Report, 2001. pg 155

Abstracts

1. B.A. Mullins, D.W. Watson, A.C. Gerry, D. Soto and **B.A. Sandelin** 2015. Responses of *Haematobia irritans* to repellents applied to host cattle. American Association of Veterinary Parasitologists/Livestock Insect Workers Conference.
2. Oscar E. Chavez, Lee A. Pettey, **Broc A. Sandelin**, John Tegzes. 2014 Effects of fresh prepared, whole food canine maintenance diets on clinically measurable blood parameters in healthy dogs. 2014 Proceeds of American Association Veterinary Nutritionists Clinical Nutrition and Research Symposium
3. B. McCoy, N. Wheeler, J. Willard, T. Wistuba, P. Prater, and **B. Sandelin** 2006 .Using ultrasound as a quantitative tool to assess body condition score in Quarter and Thouroughbred horses. Pg. 22. Proceedings 2006 National Meetings American Society of Animal Science

4. **B.A. Sandelin**, A.H. Brown, Jr. , C. Ojano-Dirain, M. Iqbal, W.G. Bottje, M.A. Brown, W.O. Herring, M. Akin, Z.B. Johnson, and R.T. Baublits. 2005. Different measures of energetic efficiency, ultrasound and carcass merit and their relationships with mitochondrial activity in Angus cattle. *J. Anim. Sci.*:83
5. **B.A. Sandelin**, A.H. Brown, Jr. , C. Ojano-Dirain, M. Iqbal, W.G. Bottje, M.A. Brown, W.O. Herring, M. Akin, Z.B. Johnson, and R.T. Baublits. 2004. Assessment of Respiratory Chain Complex Activities and Electron Transport Chain Protein Expression in Muscle Mitochondria in Angus Steers with Low and High Feed Efficiency. *J. Anim. Sci.* 82:
6. **B.A. Sandelin**, A.H. Brown, Jr., M.A. Brown, Z.B. Johnson, D.W. Kellogg, and R.T. Baublits. 2003. Milk Production of four divergent biological types of cows grazing endophyte-infected tall fescue or common bermudagrass. *J. Anim. Sci.* 81: Suppl. 2
7. R.T. Baublits, A.H. Brown, Jr., F.W. Pohlman, C.J. Richards, H.D. Loveday, D.O. Onks, Z.B. Johnson, C.A. Wells, R.E. Morrow, and **B.A. Sandelin**. 2003. Effects of biological type and forage feeding on carcass characteristics, fatty acid profiles, and sensory attributes of beef cattle. *J. Anim. Sci.* 81: Suppl. 2
8. A.H. Brown. Jr., Z.B. Johnson, J.A. Hornsby, **B.A. Sandelin**, R.T. Baublits, and E.B. Flores. 2003. Post partum maternal behavior in six breed groups of beef cows. *J. Anim. Sci.* 81: Suppl. 2
9. **B.A. Sandelin**, A.H. Brown, Jr., M.A. Brown, Z.B. Johnson, D.W. Kellogg, and A.M. Stelzleni. 2002. Maternal performance of four divergent biological types resulting from Angus, Brahman and reciprocal cross cows grazing endophyte-infected tall fescue or common bermudagrass. *J. Anim. Sci.* 80: Suppl. 2 pg 11.
10. A.M. Stelzleni, T.L. Perkins, A.H. Brown, Jr., Z.B. Johnson, F.W. Pohlman and **B. A. Sandelin**. 2002. Variation in Ultrasonically determined intramuscular fat in Brangus cattle. *J. Anim. Sci.* 80: Suppl. 2 pg 5.
11. **B.A. Sandelin**, A.H. Brown, Jr., M.A. Brown, Z.B. Johnson and A.M Stelzleni. 2001. Genotype x Forage Interaction for Mature Weight and Rate of Maturing in Angus, Brahman and Reciprocal Cross Cows. *J. Anim. Sci.* 79: Suppl 2 pg 5.
12. A.H. Brown, Jr., Z.B. Johnson, D.S. Hubbell, III, **B.A. Sandelin**, and A.M. Stelzleni. 2000. The effects of genetic level of milk production and nutritional stress on maternal performance of Angus cows. *J. Anim. Sci.* 78: Suppl. 2 pg 18.
13. **B.A. Sandelin**, A.H. Brown, Jr., Z. B. Johnson, A. M. Stelzleni, and C.F. Rosenkrans, Jr. 2002. Maternal performance of four biological types of Red Poll cows. *J. Anim. Sci.* 79: Suppl 1 pg 445

14. A.M. Stelzleni, T.L. Perkins. A.H. Brown, Jr., Z.B. Johnson and **B.A. Sandelin**. 2001. Genetic Parameter Estimates of Yearling Live Animal Ultrasonic Measurements in Brangus Cattle. *J. Anim. Sci.* 79:Suppl 2 pg 7
15. **B.A. Sandelin**, R.C. Johnson, P.K. Camfield, C.P Allison and J.E. Cannon. 1999. Estimation of pork longissimus dorsi intramuscular fat. *J. Anim. Sci.* 77:44

Professional Presentations

Poster Presentations:

1. Effects of fresh prepared, whole food canine maintenance diets on clinically measurable blood parameters in healthy dogs. 2014 Oscar E. Chavez, Lee A. Pettey, Broc A. Sandelin, John Tegzes. *Proceeds of American Association Veterinary Nutritionists Clinical Nutrition and Research Symposium*
2. Northern flies at southern latitudes: Investigations of range, abundance, and diapause of *Musca autumnalis* in southern California" 2013 F. A. Fowler, D. Soto, **B. A. Sandelin** and B. A. Mullens
3. **B.A. Sandelin** "Association of Mitochondrial Biochemistry with Feed Utilization in Cattle" 2006 and 2007 Annual Agricultural Research Initiative Symposium
4. B.A. Sandelin, A.H. Brown, Jr., Z. B. Johnson, A. M. De La Peza, K, A. Klohhaus and **B.A. Sandelin**. 2007 Analysis of Effect of Adipose-Derived Mesenchymal Stem and Regenerative Cells on Lameness in Dogs with Chronic Osteoarthritis. Annual Cal Poly Pomona SEES Research Conference
5. Stelzleni, and C.F. Rosenkrans, Jr. 2002. Maternal performance of four biological types of Red Poll cows.

Oral Presentations:

1. **B.A. Sandelin**, A.H. Brown, Jr. , C. Ojano-Dirain, M. Iqbal, W.G. Bottje, M.A. Brown, W.O. Herring, M. Akin, Z.B. Johnson, and R.T. Baublits. 2005. Different measures of energetic efficiency, ultrasound and carcass merit and their relationships with mitochondrial activity in Angus cattle.
2. **B.A. Sandelin**, A.H. Brown, Jr. , C. Ojano-Dirain, M. Iqbal, W.G. Bottje, M.A. Brown, W.O. Herring, M. Akin, Z.B. Johnson, and R.T. Baublits. 2004. Assessment of Respiratory Chain Complex Activities and Electron Transport Chain Protein

Expression in Muscle Mitochondria in Angus Steers with Low and High Feed Efficiency.

3. **B.A. Sandelin**, A.H. Brown, Jr., M.A. Brown, Z.B. Johnson, D.W. Kellogg, and R.T. Baublits. 2003. Milk Production of four divergent biological types of cows grazing endophyte-infected tall fescue or common bermudagrass.
4. **B.A. Sandelin**, A.H. Brown, Jr., M.A. Brown, Z.B. Johnson, D.W. Kellogg, and A.M. Stelzleni. 2002. Genotype x environment interaction for mature weight and rate of maturing for Angus, Brahman and Reciprocal Cross Cows grazing common bermudagrass of endophyte infected fescue.
5. **B.A. Sandelin**, A.H. Brown, Jr., M.A. Brown, Z.B. Johnson, D.W. Kellogg, and A.M. Stelzleni. 2002. Maternal performance of four divergent biological types resulting from Angus, Brahman and reciprocal cross cows grazing endophyte-infected tall fescue or common bermudagrass.
6. **B.A. Sandelin**, R.C. Johnson, P.K. Camfield, C.P Allison and J.E. Cannon. 1999. Estimation of pork longissimus dorsi intramuscular fat.

Whitepaper:

JUSTFOODFORDOGS WHITEPAPER

An Evidence-Based Analysis of the Dog Food Industry in the USA.

Served as collaborator for this paper

Fundraising Highlights

2015-Curent-Working with multiple donors on large project to build \$6-7 million vet-clinic and canine shelter on Campus for RVT program

2015 \$20,000 cash donation for Farm support and upgrades of current teaching hospital

2014-Received \$1 million bequest endowment for general animal science support from Private Individual. (Largest gift in Department History)

2014- Received \$200,000 cash endowment for support of AVS programs. (3rd largest gift in Department History)

2013-Received \$100,000 scholarship endowment bequest from AVS Alumni and \$5,000 gift for immediate scholarship use

2011-2017 Generated Over \$300,000 in workshop revenue to assist in funding gaps for basic teaching needs

2010-2017 \$145,00 Unrestricted misc cash Gifts (not including above endowments/scholarships)

2011-2017 \$24,000 in scholarships (not including above)

2010-2017 \$185,800 Gifts in kind (feed, animals, equipment, food for events, services, etc)

January 2017-Record month for unrestricted cash donations-\$24,500.

It is important to note that prior to becoming chair in 2010 there was relatively no alumni outreach, and no targeting fundraising in the department. I was essentially starting from ground zero. It took 3-4 years of "friend raising " to get where we are today. I am very proud of these accomplishments.

Other Noteworthy Achievements and Initiatives:

Currently leading department in semester conversion process (2014-2017)-Converting all department curriculum and courses from quarters to semesters (75 courses), including developing new assessment plans for department, creating expanded course outline, new course schedules, advising rubrics etc. Task is 90% complete with full implementation in Fall 2018

Partner with Los Angeles County Fair Board to provide over 225 farm animals for exhibit to the public every year. Also provide student and staff labor to oversee this 20 day fair that has over 1,000,000 attendees every year. This is great opportunity for students to not only get animal experience but also a huge amount of "people" experience dealing with all facets of life here in Southern California.

The AVS Dept has increased grant activity 4 fold since I took over as chair in 2010-I have found funds to help with release time for faculty to be able to write grants and they have been successful. Department faculty has received over \$1,000,000 in FY 13/14 . Have had 3 provost teacher/scholar awardees since 2010.

Successfully negotiated long term lease agreement on 440 acres of untouched rangeland in Brea Canyon (Orange County, CA). A church in Orange County owns this land and they were looking for way to utilize the land in and environmentally sustainable way, while making a small profit for their organization and supporting Agriculture education. We currently use this land to graze some of our cattle, thus keeping the pasture lands on campus from being overgrazed especially in times of drought.

Since taking over AVS Farm supervision in 2009, the AVS Farm has went from consisting losing \$30-\$40K/yr to become profitable in last two years. Have 60 cows, 20 sows, 150 ewes and 25 goats.

Partnerships with local for-profit technical colleges to use Department Facilities, Animals and Staff to teach Farm Animal Essential Skills for AVMA accredited RVT Programs- Resulted in annual revenue of approximately \$50k for Department Operations.

Partnership with College of Veterinary Medicine at Western University of Health Sciences. They use our farm animals in exchange for free veterinary care, greatly benefits both universities. Several Research collaborations in the past and community service collaborations are in the pipeline. Our RVT program is also working on partnership with their teaching hospital for internships.

Our AHS and AVS programs lead the university (1st and 5th respectively) in 4yr graduation rates and AVS program leads the university in 5 yr gradation rates. Our transfer graduation rates are also in top 10 for both programs. Both programs increased graduation rates by at least 30% in last 6 years.

Served as Full panel reviewer on NIFA educational grants as well as reviewer for two farm animal management textbooks and CTTI bovine training modules.