

# ANIMAL & DAIRY SCIENCES



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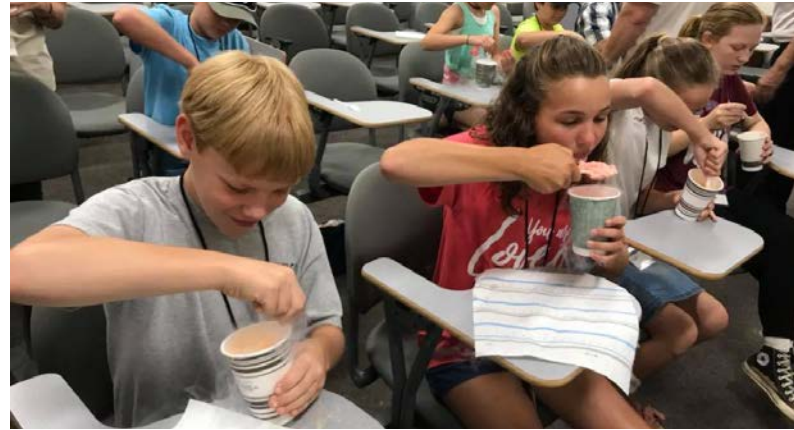
# MISSISSIPPI STATE UNIVERSITY

# COW CAMP 2018 DAY 1

Day 1 (below) included "Fun with Milk" with Dr. Bob Horton from Ohio State. We made ice cream with liquid nitrogen and learned a lot!

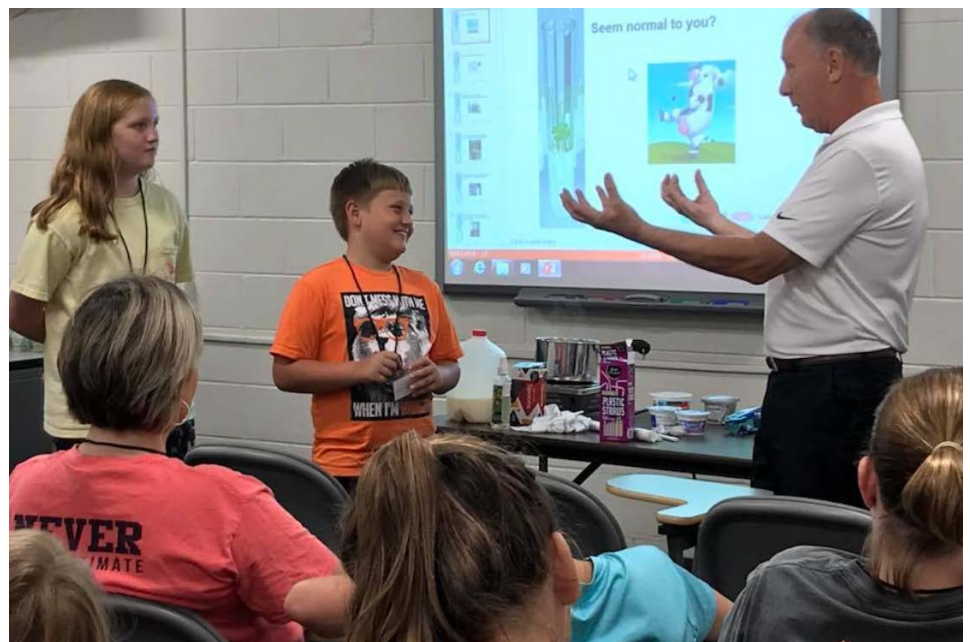
We then had a dairy tour where Mr. Kenneth told us all about the Bearden Dairy Research Center.

Afterward, we washed heifers in preparation for clipping and had an outdoor dinner from Little Dooe'ys.



Day 2 (also pictured here) included a clipping and fitting demo by Mr Wesley Blankenship, from Tennessee, followed by a Dominos pizza lunch.

We then went back to the MSU dairy to apply what we learned on some heifers.





# COW CAMP 2018 DAY 2 & 3

Day 2 of Cow Camp 2018 involved a talk from Mr. Charlie Crave from Crave Brothers cheese in Wisconsin. He discussed family, cows, business, and food.

We then had a great dinner from the Veranda.



Day 3 included Dr. Darren McGee of Elanco who discussed animal health. The participants were involved in answering questions as teams and learned a lot about preventing diseases in their animals. Mr. Scott Hardin then spoke about feeding show animals properly and ensuring that they are provided everything they need to thrive.



# FACULTY LEADERSHIP PROGRAM

Each class is named after a former MSU President. This year's class is named after President William L. Giles, who served as president from 1966-1976. The participants in the class of 2018-2019 are:

Todd Archer, Assoc. Professor, Dept. of Clinical Sciences, CVM

Critz Campbell, Assoc. Professor, Dept. of Art

Adam Knight, Assoc. Professor, Dept. of Kinesiology

**Jamie Larson, Assoc. Professor, Dept. of Animal and Dairy Science**

Yucheng Liu, Assoc. Professor, Dept. of Mechanical Engineering

Julia Osman, Assoc. Professor, Dept. of History

Mabel Okojie, Professor, Dept. of Instructional Systems and Workforce Dev.

Brian Shoup, Assoc. Professor, Dept. of Political Science and Public Administration

Darrell Sparks, Assoc. Professor, Dept. of Biochemistry, Molecular Biology

Kathleen Thomas, Professor, Dept. of Finance and Economics

**Congratulations,  
Dr. Jamie Larson  
for participating  
in this  
year's Faculty  
Leadership  
Program**



# EQUESTRIAN TEAM FALL TRYOUT MEETING

If you are a current student or an incoming freshman at MS State and you are interested in trying out for the equestrian team, please join us August 23rd at 6 PM!

The MS State Equestrian Team is an IHSA team that competes in Eq over fences, Eq on the flat, Horsemanship and Reining.

(580) 795-4349  
m.me/msuequestrianteam



## Equestrian Team

### Fall Tryout Meeting

Aug 23<sup>rd</sup> in Wise 4043 @ 6PM

Questions: contact Coach Ashley Shiffler

[Aes779@msstate.edu](mailto:Aes779@msstate.edu)





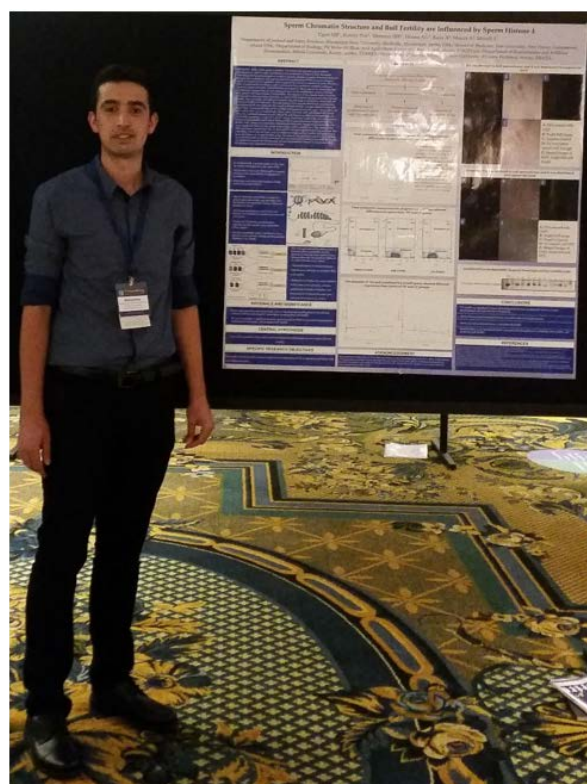
# MUHAMMET RASIT UGUR PRESENTS

Muhammet Rasit Ugur presented his research at the Society for the Study of Reproduction (SSR) International Conference.

Muhammet Rasit Ugur, a Ph.D. student in the Department of Animal and Dairy Sciences, presented his poster "Sperm Chromatin and Bull Fertility are Influenced by Sperm Histone 4" at the SSR International Conference in New Orleans, LA on July 11, 2018.

With the central theme of "Pathways to Discovery: Signals for reproductive Development and Longevity", the SSR conference was attended by nearly 900 participants around the world. The SSR is an international professional society aimed to advance scientific knowledge by promoting outstanding research and training in reproductive sciences (<https://www.ssr.org/>).

Using systems biology and physiology approaches, Muhammet is pursuing his dissertation research aimed at ascertaining paternal and maternal effect genes regulating fertility in livestock, with applications to other mammals, with guidance from his graduate advisor **Dr. Memili** and committee members **Drs. Dinh, Smith, and Stone**. Muhammet is the recipient of a competitive graduate fellowship from the Turkish Ministry of National Education.



# MSU 2018-2019 EQUESTRIAN TEAM SCHEDULE



Mississippi State University Equestrian Team

July 6 at 1:43 PM · 🌐



2018-2019 Competition Schedule!

September 1st- Scrimmage at MS State against Ole Miss and Bayview Equestrian Teams

Oct 7th- at Wills Park

Oct 20-21- at Berry College

Oct 27-28- at University of Alabama

Nov 10-11- at Auburn University

Feb 2-3- at Berry College

Feb 16th- at Judson College

Feb 17th- at University of Alabama

Feb 23rd- at Auburn University

March 2nd- Regionals at Auburn University

March 16-17- Western Semifinals in Florida

TBD- Huntseat Zones

May 2-5- Nationals in Syracuse, NY

# ICE CREAM & A MOO-VIE



MISSISSIPPI STATE UNIVERSITY™  
EXTENSION

*Ice Cream & a Moo-vie!*

Come watch *Babe* at the Mississippi State University Dairy!

Saturday, August 25, 2018, 7 p.m.  
Bearden Dairy Research Center  
2128 Turkey Creek Road  
Starkville, MS 39759

Bring your own blankets!

Admission: Free

\$5 for ice cream and popcorn (*Cash or check only*)

*See you at the Moo-vie!*

Produced by Agricultural Communications.

Mississippi State University is an equal opportunity institution. For disability accommodation, please contact Amanda Stone at (662) 325-3516 or [amanda.stone@msstate.edu](mailto:amanda.stone@msstate.edu).



# UPCOMING EXTENSION EVENTS

## Beef Extension - Dr. Brandi Karisch & Cobie Rutherford

July 13, 2018 Deep South Stocker Conference, Greensboro, AL

August 6, 2018 Homeplace Producers Feeder Calf Board Sale, Hattiesburg, MS

Phone: (662) 325-7465 or brandi.karisch@msstate.edu

(662) 325-4344 or cobie.rutherford@msstate.edu

## Dairy Events - Dr. Amanda Stone

Aug. 25, 2018 Ice Cream & a Moo-vie, Bearden Dairy, Starkville, MS

Sept. 20-21, 2018 Cow Calf College 2018, Starkville (20th), Brookhaven (21st)

Sept. 27-29, 2018 Breakfast on the Farm, Bearden Dairy, Starkville, MS

Phone: (662) 325-8773 or amanda.stone@msstate.edu

Website: <http://extension.msstate.edu/dairy>

## 4-H Events - Dr. Dean Jousan

Sept.11-14, 2018 Retinal Image/Classify livestock for 2018 Mississippi State Fair & 2019 District Dixie National Junior Round-Up, Various cities, MS

Phone: (662) 325-2424 or dj230@msstate.edu

Website: [www.http://extension.msstate.edu/4-h](http://www.http://extension.msstate.edu/4-h)

## Equine Events - Dr. Clay Cavinder

Contact Dr. Cavinder for information about programs and events.

Phone: (662) 325-7566 or clay.cavinder@msstate.edu

Website

<http://extension.msstate.edu/agriculture/livestock/equine/upcoming-programs>

## 2018 Refereed Publications

- Humphrey, R. M., Z. Yang, M. S. Hasan, **M. A. Crenshaw**, **D. D. Burnett**, J. K. Htoo and **S. F. Liao**. The compensatorily -gained pigs resulted from feeding a methionine-deficient diet had more fat and less lean body mass. *Journal of Applied Animal Nutrition*, Vol. 6; e6; page 1 of 7. <https://doi.org/10.1017/JAN.2018.5>.
- Griffin, Courtney M. , BS; Jenna A. Scott, BS; **Brandi B. Karisch, MS, PhD**; Amelia R. Woolums, DVM, MVSc, PhD, DACVIM, DACVM; **John R. Blanton, MS, PhD**; Ray M. Kaplan, DVM, PhD, DEVPC, DACVM; William B. Epperson, DVM, MS, DACVPM (Epidemiology); David R. Smith, DVM, PhD, DACVPM (Epidemiology). A randomized controlled trial to test the effect of on-arrival vaccination and deworming on stocker cattle health and growth performance. *The Bovine Practitioner*, Vol. 52, No. 1.
- Sun, Yuhang , Jin Liu, Gengping Ye, Fang Gan, Mohammed Hamid, **Shengfa Liao**, Kehe Huang. Protective effects of zymosan on heat stress-induced immunosuppression and apoptosis in dairy cows and peripheral blood mononuclear cells. *Cell Stress and Chaperones*. <https://doi.org/10.1007/s12192-018-0916-z>.
- Woolums, Amelia R., **Brandi B. Karisch**, Jonathan G. Frye, William Epperson, David R. Smith, **John Blanton Jr.**, Frank Austin, Ray Kaplan, Lari Hiott, Tiffanie Woodley, Sushim K. Gupta, Charlene R. Jackson, Michael McClelland. Multidrug-resistant *Mannheimia haemolytica* isolated from high-risk beef stocker cattle after antimicrobial metaphylaxis and treatment of bovine respiratory disease. *Veterinary Microbiology* 221 (2018) 143-152. <https://doi.org/10.1016/j.jvetmic.2018.06.005>.
- Sukumaran, Anuraj T., Alexander J. Holtcamp, Yan L. Campbell, **Derris Burnett**, Mark W. Schilling, **Thu T.N. Dinh**. Technological characteristics of pre- and post-rigor deboned beef mixtures from Holstein steers and quality attributes of cooked beef sausage. *Meat Science*. 145 (2018) 71–78. <https://doi.org/10.1016/j.meatsci.2018.06.001>.
- Hart, CG, BE Voelz, KE Brockus, **CO Lemley**. Hepatic steroid inactivating enzymes, hepatic portal blood flow and corpus luteum blood perfusion in cattle. *Reproduction in Domestic Animals*. 2018;53:751–758.
- Camacho, L.E., **C.O. Lemley**, S.T. Dorsam, K.C. Swanson, K.A. Vonnahme. Effects of maternal nutrient restriction followed by realimentation during early and mid-gestation in beef cows. II. Placental development, umbilical blood flow, and uterine blood flow responses to diet alterations. *Theriogenology*. <https://doi.org/10.1016/j.theriogenology.2018.04.013>.
- Lemley, C.O.**, L.E. Camacho, D.M. Hallford, K.A. Vonnahme. Uteroplacental secretion of progesterone and estradiol 17beta in an ovine model of intrauterine growth restriction. *Animal Reproduction Science*. 193 (2018) 68-78. <https://doi.org/10.1016/j.anireprosci.2018.04.001>.
- T. Williams, **B. Rude**, **S. Liao**, C. Mochal-King, **M. Nicodemus**. Effects of fat supplementation on plasma glucose, insulin and fatty acid analysis in ponies maintained on a forage- based diet. *Journal of Animal Physiology and Animal Nutrition*. 2018;1–8. DOI: 10.1111/jpn.12905.
- Gastal, G.D.A., **J.M. Feugang**, F.L.N. Aguiar, A.P.R. Rodrigues, J.M. Scimeca, G.A. Apgar, W.J. Banz, E.L. Gastal. Cryopreservation and in vitro culture of white-tailed deer ovarian tissue. *Theriogenology*. 113 (2018) 253-260.
- Velho, Ana Luiza Cazaux, Einko Topper, Erika Menezes, **Thu Dinh**, Abdullah Kaya, Arlindo Alencar Moura, **Erdogan Memili**. Metabolomic markers of fertility in bull seminal plasma. *PLOS ONE*. <https://doi.org/10.1371/journal.pone.0195279>.

## 2018 Refereed Publications

- Owen, MPT , EN Ferjak, **CA Cavinder**, KJ McCarty, KC Yankey, CG Hart, **DD Burnett**, **TTN Dinh**, **CO Lemley**. Effects of body condition score (BCS) on steroid- and eicosanoid- metabolizing enzyme activity in various mare tissues during winter anoestrus. *Reproduction in Domestic Animals*. 2018;53:296–303. <https://doi.org/10.1111/rda.13104>.
- Park, Seong B., **Scott T. Willard**, Christy S. Steadman, Atul A. Chaudhari, Shreekumar R. Pillai, Shree R. Singh, **Peter L. Ryan** and **Jean M. Feugang**. Proteomic analysis of antimicrobial effects of pegylated silver coated carbon nanotubes in *Salmonella enterica* serovar Typhimurium. *Journal of Nanobiotechnology*. (2018) 16:31 <https://doi.org/10.1186/s12951-018-0355-0>.
- Cavinder, C. A.**, PAS, E. N. Ferjak, C. A. Phillips, **D. D. Burnett**, and **T. T. N. Dinh**. REVIEW: The importance of overall body fat content in horses. *The Professional Animal Scientist* 34:125–132. <https://doi.org/10.15232/pas.2017-01708>.
- Sukumaran, Anuraj T. , Alexander J. Holtcamp, April K. Englishbey, Yan L. Campbell, Taejo Kim, Mark W. Schilling, **Thu T.N. Dinh**. Effect of deboning time on the growth of *Salmonella*, *E. coli*, aerobic, and lactic acid bacteria during beef sausage processing and storage. *Meat Science* 139 (2018) 49–55.
- Wang, T., **M. A. Crenshaw**, N. Regmi, **B. J. Rude**, M. S. Hasan, A. T. Sukumaran, **T. Dinh**, and **S. F. Liao**. 2018. Effects of dietary lysine level on the content and fatty acid composition of the intramuscular fat in late-stage finishing pigs. *Canadian Journal of Animal Science*. 98: 241-249. DOI: [dx.doi.org/10.1139/cjas-2017-0083](https://doi.org/10.1139/cjas-2017-0083).
- Owen, M.P.T., K.J. McCarty, C.G. Hart, C.S. Steadman, **C.O. Lemley**. Endometrial blood perfusion as assessed using a novel laser Doppler technique in Angus cows. *Animal Reproduction Science*. 190 (2018) 119-126. <https://doi.org/10.1016/j.anireprosci.2018.01.015>.
- Feugang, Jean M.** , **Shengfa F. Liao**, **Scott T. Willard**, and **Peter L. Ryan**. In-depth proteomic analysis of boar spermatozoa through shotgun and gel-based methods. *BMC Genomics*. (2018) 19:62 DOI 10.1186/s12864-018-4442-2.
- Liao, Shengfa F.**, Naresh Regmi, Guoyao Wu. Homeostatic Regulation of Plasma Amino Acid Concentrations. *Frontiers in Bioscience, Landmark*. 23, 640-655, January 1, 2018.
- Feugang, Jean M.** , **Shengfa F. Liao**, **Scott T. Willard**, and **Peter L. Ryan**. In-depth proteomic analysis of boar spermatozoa through shotgun and gel-based methods. *BMC Genomics*. (2018) 19:62 DOI 10.1186/s12864-018-4442-2.
- Liao, Shengfa F.**, Naresh Regmi, Guoyao Wu. Homeostatic Regulation of Plasma Amino Acid Concentrations. *Frontiers in Bioscience, Landmark*. 23, 640-655, January 1, 2018.



## 2018 Book Chapters:

Jain, Sapna, Seong B. Park, Shreekmar R. Pillai, **Peter L. Ryan**, **Scott T. Willard** and **Jean M. Feugang**. Applications of Fluorescent Quantum Dots for Reproductive Medicine and Disease Detection. In *Unraveling the Safety Profile of Nanoscale Particles and Materials—From Biomedical to Environmental Applications*, Chapter 6, pp. 133-148, <http://dx.doi.org/10.5772/intechopen.72978>.