This week’s issue of AMSA eNews features

- International Agency for Research on Cancer Update
- Eric Berg Examines Relationship Between Red Meat Consumption and Obesity in the Newest Meat MythCrusher
- Media Publications Highlighting AMSA Members
- Bringing Biotechnology to Life: A Classroom Resource
- 2016 International Livestock Congress Travel Fellowships - Apply Today
- FSIS Livestock Slaughter Establishment Residue Questionnaire Results
- Register for the Upcoming AMSA Educational Webinars
- Upcoming Conferences - Mark Your Calendars
- AMSA Meat Science Career Center ~ Current Job and Internship Postings

Be sure to follow AMSA on Twitter, like us on Facebook and check the Website daily to stay up to date on important AMSA information!

International Agency for Research on Cancer Update

The International Agency for Research on Cancer (IARC) recently concluded its meeting in Lyon, France where they evaluated red and processed meats as a possible human carcinogen. Several individuals from the USA served as members on this expert panel and there were six observers from the USA that were selected to participate. AMSA members Betsy Booren with the North American Meat Institute and Shalene McNeill with the National Cattlemen's Beef Association were two of the six observers selected. Observers in this type of meeting play a valuable role of ensuring that all published information and scientific perspectives are considered as well as providing clarity when called upon within the different working groups.

Meat is a physically, chemically, and nutritionally complex food, so in an effort to provide some clarity, AMSA submitted several of our publications to the IARC monograph committee in advance of their meeting. The intention was that these resources could help the committee to better understand the basics principles and characteristics of meat and meat cookery as they completed their evaluation on red and processed meat and carcinogenicity.

IARC classifies compounds into four groups based on the available scientific evidence for increasing cancer risk in animals and humans. The four classifications are Groups 1, 2A, 2B, 3, and 4, which correspond to decreasing available evidence for cancer risk. IARC's panel of experts will assign red and processed meats a category indicating the meats’ likelihood of being a human carcinogen, in the coming weeks. We anticipate the Lancet
AMSA and the North American Meat Institute (NAMI) and released a new Meat MythCrusher video examining the link between red meat consumption and obesity. While popular media often link obesity with red meat consumption, Eric Berg, Ph.D., professor and associate head of animal sciences at North Dakota State University explains that while obesity rates have doubled since the first Dietary Guidelines for Americans were released in 1977, red meat consumption has decreased over the same time frame.

“Consumption trends, particularly the consumption of red meat has gone down,” said Berg. “Ironically this is inversely proportional to the prevalence of obesity and followed closely behind that is the prevalence of chronic diseases such as metabolic syndrome and type 2 diabetes.”

Berg also details his own research into the relationship between amino acid consumption and obesity which has found that incomplete amino acid intake from diets that don’t include complete proteins such as meat are more likely to increase fat deposits throughout the body.

The Meat MythCrusher video series features interviews with meat scientists who bust some of the most common myths surrounding meat and poultry production and processing.

In addition to the video release, NAMI and AMSA are debuting an updated printed Meat MythCrusher brochure which includes more than 40 meat myths on topics such as animal welfare, antibiotic use, food safety, processing and nutrition. The brochure is available on request by emailing publicaffairs@meatinstitute.org or by downloading from the resources section of www.meatmythcrushers.com.

All of the videos and more are available at http://www.meatmythcrushers.com/.

Media Publications

Reduced Burden of Salmonella enterica in Bovine Subiliac Lymph Nodes Associated with Administration of a Direct-fed Microbial

Current research has implicated bovine lymph nodes as a potential source of Salmonella contamination of ground beef. Until recently, Salmonella cross-contamination of the carcass was believed to occur via the hide or the intestinal tract during slaughter. Many beef processing facilities have implemented effective food safety interventions to control this manner of contamination. Despite
controls, *Salmonella* can be a contaminant of raw ground beef, and data indicates that bovine lymph nodes are protecting *Salmonella* from post-harvest interventions. Furthermore, it is not practically possible to completely remove all lymph nodes from a beef carcass, creating potential for contaminated lymph nodes to be incorporated into a grind and thus contaminate ground beef product.

With few post-harvest intervention strategies available, investigation of the efficacy of using pre-harvest interventions to control lymph node contamination was necessary. Currently, direct-fed microbials (DFM) are routinely fed as part of feedlot cattle diets, specifically *Lactobacillus* animalis (NP51) and *Propionibacterium freudenreichii* (NP24). Data — particularly on the high dose of 10⁹ cfu/head/day — are available on the reduction of *E. coli* O157:H7 and *Salmonella* in the feces and on the hides of feedlot cattle being administered NP51 and NP24 in their diets (Brashears et al., 2002, 2003; Elam et al., 2003; Younts-Dahl et al., 2004, 2005; Loneragan and Brashears, 2005; Peterson et al., 2007; Stephens et al., 2007). These studies indicate feeding a DFM could also hold promise for the reduction of *Salmonella* presence and concentration within bovine lymph nodes.

*Jessie Vipham is an assistant professor at Kansas State University and recent graduate of Texas Tech University. She placed 2nd in the American Meat Science Association Ph.D. Research Competition at the AMSA 68th RMC in Lincoln, Neb., this past June.*

**Click here to read the full story!**

**Tarleton State Puts New Emphasis on Meat Science**

Tarleton State University has a rich tradition in the pursuit of excellence both in and out of the classroom. Animal Science has always had a strong presence at TSU, with an overwhelming emphasis in pre-veterinary medicine. However, there is a growing interest in the area of meat science. With the addition of two new Assistant Professors and Department Head, Tarleton is poised and committed to developing and maintaining a solid emphasis focused on Meat Science.

Dr. Frank Owsley, Department Head, came from Auburn University and is excited about the growth in faculty as well as student numbers at TSU.

“With the existence of both faculty and facilities, and an active research program, Tarleton is well positioned to provide service to the industry in applied research and service/outreach,” said Owsley.

**Click here to read more!**

**Bringing Biotechnology to Life: A Classroom Resource for Grades 7 -10**

The American Farm Bureau Foundation for Agriculture and the International Food Information Council Foundation announced the global launch of Bringing Biotechnology to Life, a free educational resource that aims to facilitate learning about agricultural biotechnology and its role in food production. The new curriculum was unveiled at the World Food Prize 2015 Borlaug Dialogue international symposium.

"Bringing Biotechnology to Life is a science-based classroom
resource with applicable lessons related to agriculture," said Julie Tesch, executive director of the American Farm Bureau Foundation for Agriculture. "This resource is fact- and research-based and has been reviewed by an array of scientists, so the science behind it is very sound."

"Many consumers do not understand the impact biotechnology makes on agriculture and our lives," Tesch said. "Our goal is to have this resource provide students with the tools they need to make informed decisions about the practical uses of biotechnology."

The resource includes seven sequential lesson plans for educators which address national learning standards for 7th to 10th grade students. The Bringing Biotechnology to Life learning kit is available for download at no cost online at http://www.foodinsight.org/biotech-curricula or http://www.agfoundation.org/images/uploads/EG_Biotech_Final.pdf.

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**2016 International Livestock Congress Travel Fellowships - Apply Today**

The application process is now open for university students to apply for an International Stockmen’s Educational Foundation Travel Fellowship to attend the International Livestock Congress USA in March 2016.

The International Livestock Congress USA, managed through a partnership of the International Stockmen’s Educational Foundation and the Houston Livestock Show and Rodeo™, is a unique global event that brings together leaders from the livestock and meat industry to discuss issues of international importance that affect the future of animal agriculture.

The International Stockmen’s Educational Foundation awards travel fellowships to senior level undergraduate students and graduate students attending accredited colleges or universities. This prestigious fellowship includes airfare, ground transportation, hotel and scheduled meals for all selected students. Scholastic achievement, leadership experiences and professional references are all part of the stringent qualifying requirements for this fellowship.

Selected students will participate in the event March 2-4, 2016, in Houston, Texas. Events will include a student career workshop, the International Livestock Congress USA, and associated tours and activities.

To learn more about this prestigious fellowship and to view the elite list of ISEF Student Fellowship Alumni, visit our website at http://www.theisef.com.

The online application submission process may be accessed at http://www.theisef.com/student-program-1.html. **Deadline to apply is Nov. 1, 2015.**

Questions? Email Maggie Tucker, ISEF Student Program Coordinator, at students@theisef.com.

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**FSIS Livestock Slaughter Establishment Residue Questionnaire Results**
On May 28, 2014, FSIS issued FSIS Notice 24-14, Livestock Slaughter Establishment Residue Questionnaire, with instructions to Public Health Veterinarians (PHVs) to gather data about factors that may affect the performance of in-plant screening tests. The questionnaire began June 1 and ended June 30, 2014. The PHIS assigned questionnaire produced completed PHV responses from 796 establishments; however, multiple PHV responses were received from several establishments. The recently released results of the 2014 Residue Questionnaire indicate a need for more specific instruction and training for PHVs on when to residue test. The responses from the PHVs indicate that there is some confusion with the current instruction, and, further, those instructions should be more slaughter class specific. Staffing shortages and interference from other inspection responsibilities continue to be a reason to not residue test. The results of this questionnaire were used to initiate the FSIS Slaughter Pilot project which FSIS intends to start in this month.

Beginning with Dairy Cow and Bob Veal slaughter classes, FSIS is launching a pilot project to increase efficiencies of in-plant testing and to provide inspection program personnel (IPP) with more specific guidance. The intent of this project is to not increase the overall testing rate, but to provide more effective guidance to PHVs regarding conditions selected for testing. FSIS anticipates this pilot will continue for a period of 2-3 months and will provide regular updates to stakeholders on its progress.

AMSA Educational Webinars

Communicating Agriculture Effectively to a Growing Population
October 27, 2015
1:00-2:00 pm CDT

- **Overview:**
  - There is a growing separation in knowledge between modern agriculture producers and food consumers. Part of this separation is driven from the fact that most food consumers in the U.S. do not live in rural areas or have an agricultural background. With the American population moving farther away from agriculture, basic education about agriculture is lacking for most Americans. Major issues affecting production agriculture and future sustainability are becoming mainstream topics of discussion. It is important that consumers know the role agriculture has in their everyday lives. Dr. Berg will present tips for engaging consumers (aka foodies) in conversation about modern meat production, processing, consumption, and nutritional value. He will draw upon data collected from over 6,500 attendees of the NDSU BBQ Boot Camp.

- **Presenter:**
  - Eric Berg is a Professor/Associate Head in the Department of Animal Science at North Dakota State University. Dr. Berg’s current research focus involves using swine as a biomedical model for humans with regard to the role of meat in a healthy low-glycemic diet. Dr. Berg teaches Introduction to Animal Science, Research and Issues in Animal Agriculture, and
Livestock Muscle Physiology in the Department of Animal Science and serves as the department’s Associate Head. He is active as one of the four founding members of the NDSU BBQ Boot Camp program and is the faculty advisor for Carnivore Catering (a not-for-profit caterer managed by the Animal Sciences graduate student organization).

- **Register:**
  - Registration is complimentary but you must first register by clicking here!

**PEDV Update**
November 11, 2015
11:30 am – 12:30 pm CDT

- **Overview:**
  - Porcine Epidemic Diarrhea Virus (PEDV) virus was first diagnosed in the United States in mid-May 2013. The webinar will cover an update of the current status of the PEDV outbreak since 2013, review research for PEDV, review how producers are applying those results on-farm and look at both current and future activities for PEDV disease management.

- **Presenter:**
  - Dr. Lisa Becton is the Director of Swine Health Information and Research for the National Pork Board. She has been with NPB for 8 years. Prior to the NPB, worked 14 years as a staff veterinarian for several large integrated pork production companies managing herd health and biosecurity.

- **Register:**
  - Registration is complimentary but you must first register by clicking here!

**Developing Countries – How U.S. Meat is Perceived in other Countries**
November 18, 2015 from 11:30 am – 12:30 pm CDT

- **Overview:**
  - Developing countries are vital to U.S. exports and the red meat industries because as these countries improve economically, so does their demand for animal protein increases. Many developing countries provide demand opportunities for red meat products that result in improved product value and margin potential. Meat quality criteria, food safety and other attributes are key to these value benefits. During this webinar, factors that affect red meat demand in developing countries will be discussed.

- **Presenter:**
  - Paul Clayton is Senior Vice President of Export Service of the U.S. Meat Export Federation (USMEF) and administers the Export Service Programs for exporting members of the USMEF. These programs include market access solutions in foreign countries, industry relations and various member services including research, technical, and regulatory services. Mr. Clayton has over 30 years of experience in the meat industry. He received his Bachelor and Master Degrees in Animal Science from Colorado State University.

- **Register:**
Registration is complimentary but you must first register by clicking here!

For more information please contact Deidrea Mabry at dmabry@meatscience.org.

### Upcoming Conferences

**PORK 101.** AMSA is excited to announce that we will be hosting a new course in 2016! The University of Missouri will be hosting the PORK 101 course January 13-15, 2016 in Columbia, Missouri. PORK 101 is hosted by AMSA in cooperation with the National Pork Board and is sponsored by Elanco Animal Health. PORK 101 is co-sponsored by the American Association of Meat Processors (AAMP), American Society of Animal Science (ASAS), North American Meat Institute Foundation (NAMIF) and the Southwest Meat Association (SMA). Registration for AMSA members and other partnering organizations is $800. Non-member registration is $950. A special thank you goes out to Elanco Animal Health, a company dedicated to enhancing animal health through science and innovation. For more information or questions regarding PORK 101 please go online or contact Deidrea Mabry.

**New Petfood Innovation Workshop during Kansas State’s Pet Food Experience Announced October 28-30.** AMSA is excited to co-sponsor The Pet Food Experience which is hosted by the Kansas State Pet Food Program Team on the university’s main campus in Manhattan, Kansas, and utilizes facilities within the community. The multi-day event is a joint industry-academic venture to promote research, innovation and talent development focused on pet food and pet treat manufacturing. At these two conjoint events, attendees can expect two days of academic research presentations combined with the hands-on creation of new types of pet treats in the workshop sessions, several networking opportunities and facility tours. The Pet Food Program at Kansas State University was started in 2012 and has established degree programs, short courses, and research concerning pet food and nutrition. Kansas State University is a public teaching and research institution founded in 1863 and located in Manhattan, KS.

Click here for more information on the workshop. Click here to register, AMSA members receive a 10% discount by using the code AMSA10 (enter in the ID code field during registration and click Apply Code, discount is shown on Payment page).

**2016 Beef Industry Safety Summit.** Save the Date: 2016 Beef Industry Safety Summit will be held March 1-3, 2016 in Austin, TX. More information to come on www.bifsco.org or www.beefresearch.org.

**Registration and Housing Now Open for 2016 IPPE.**

Registration and housing are now open for the 2016 International Production and Processing Expo (IPPE), the world's largest annual meat, poultry and feed industry trade show, which will be held January 26-28, 2016, at the Georgia World Congress Center in Atlanta, Georgia. More details are online.

### AMSA Meat Science Career Center

The American Meat Science Association knows that our greatest
resource is our people, and you can remain confident that you are hiring the best educated, most talented and highly professional individuals when you tap into our pool of qualified individuals.

New Job and Internship Postings:

- Internships ~ Cargill
- WBS Quality Programs Coordinator ~ AB Washington Beef, LLC
- Quality Assurance Intern ~ AB Washington Beef, LLC
- Director of Renewable Products ~ Smithfield Farmland
- Food Safety and Quality Director ~ Nolan Ryan Beef Company
- Assistant Vice President of Science and Technology ~ National Pork Board
- Meat Sales Rep - Albuquerque, NM ~ Labatt Food Service
- Meat Sales Rep - Dallas, TX ~ Labatt Food Service
- Case Ready Food Scientist ~ Cargill
- Research and Development Intern ~ Tyson Foods
- Summer Internship Program ~ JBS and Pilgrims
- Director, Food Safety and Quality Assurance ~ Harris Ranch Beef Company
- Manager - Sanitary Design Compliance ~ Forbo Siegling, LLC
- Product and Process Solution Scientist/Food Technologist ~ Marlen International, Inc.

To post your job openings or your resume visit the AMSA Meat Science Career Center today.

Got news? Send information and news items to Deidrea Mabry for inclusion in a future edition of AMSA eNews.

2015-16 AMSA Calendar of Events

October 15 - Animal Care and Handling Conference - Kansas City, MO
October 18 – American Royal Intercollegiate Meat Judging Contest sponsored by Elanco Animal Health - Nebraska Beef, Omaha, NE
October 19 - 21 - AMSA PORK 101 - Iowa State University - Ames, IA
October 20 - Advanced Listeria monocytogenes Intervention and Control Workshop - Kansas City, MO
October 20 - National 4-H Meat Evaluation & Identification Contest - Kansas State University, Manhattan, KS
October 28-30 - Petfood Innovation Workshop and Pet Food Experience - Kansas State University, Manhattan, KS
November 1 - Cargill Meat Solutions High Plains Intercollegiate Meat Judging Contest - Friona, TX
November 2-4 - AMSA Student Board of Directors Site Visit - San Angelo, TX
November 11 - AMSA Education Webinar PEDV Update
November 15 – International Intercollegiate Meat Judging Contest - Tyson Foods, Dakota City, NE
November 18 - AMSA Educational Webinar: Developing Countries – How U.S. Meat is Perceived in other Countries
January 13-15 - AMSA PORK 101 - University of Missouri - Columbia, Missouri
January 17 - National Western Intercollegiate Meat Judging Contest - JBS, Greeley, CO
January 31 - Southwestern Intercollegiate Meat Judging Contest Frontier Meats - Fort Worth, TX
February 13 - Iowa State University Meat Evaluation Contest - Ames, IA
June 19-22 - AMSA 69th RMC - Angelo State University - San Angelo, Texas

Reciprocal Meat Conference 2016-2017

June 19-22, 2016 - Angelo State University - San Angelo, Texas
June 18-21, 2017 - Texas A&M University - College Station, Texas
June 2019 - Colorado State University - Fort Collins, Colorado

International Congress of Meat Science and Technology

August 14-19, 2016 – Bangkok, Thailand
2017 – Cork, Ireland
2018 – Australia
2019 – Germany
2020 – USA (joint meeting with the Reciprocal Meat Conference)