



Hilton St. Louis at the Ballpark
[Book your hotel reservation now!](#)

Sunday, November 10

Registration
 Ballpark Registration Desk
 5:00 PM - 7:00 PM

Monday, November 11

Breakfast
[Sponsorship Opportunity!](#)
 Lindberg Room
 8:00 AM - 9:00 AM

Registration
 Ballpark Registration Desk
 8:00 AM - 4:30 PM

SYMPOSIA AND ORAL SESSIONS

Session 1
 Chair: Brian Aldridge, Clemson University
 Ballpark I and II
 9:00 AM - 12:00 PM

9:00 AM	92741	<p>Late weaning is associated with decreased abundance of Enterobacteriaceae and AMR transfer in the cecal contents of pigs. C. Anderson*¹, J. Wiarda², and C. Loving¹, ¹<i>Food Safety and Enteric Pathogens Research Unit, National Animal Disease Center, Agricultural Research Service, United States Department of Agriculture, Ames, IA, USA</i>, ²<i>Virus and Prion Research Unit, National Animal Disease Center, Agricultural Research Service, United States Department of Agriculture, Ames, IA, USA</i>.</p>
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9:30 AM	92707	<p>Characterization of bacterial microbiomes according to the fecal phenotype in piglets before and after weaning. C. Vaggi*^{1,2}, J. C. Vötterl^{1,2}, F. Lerch^{1,2}, F. Yosi^{2,3}, S. Ricci^{2,4}, D. Verhovsek⁵, and B. U. Metzler-Zebeli^{1,2}, ¹Centre for Veterinary Systems Transformation and Sustainability, University of Veterinary Medicine Vienna, Vienna, Vienna, Austria, ²CD Lab Innovative Gut Health Concepts of Livestock, University of Veterinary Medicine Vienna, Vienna, Vienna, Austria, ³Department of Animal Science, Faculty of Agriculture, University of Sriwijaya, Palembang, South Sumatra, Indonesia, ⁴Centre for Animal Nutrition and Welfare, University of Veterinary Medicine Vienna, Vienna, Vienna, Austria, ⁵Clinical Centre for Population medicine in Fish, Pig and Poultry, University of Veterinary Medicine Vienna, Vienna, Vienna, Austria.</p>
10:00 AM	92719	<p>Characterization of regional differences in neonatal calf gut-associated lymphoid tissues using high resolution snRNA-sequencing. M. Donia*^{1,2}, B. Aldridge³, J. Lowe¹, and W. Li⁴, ¹Department of Pathobiology, College of Veterinary Medicine, University of Illinois, Urbana-Champaign, IL, USA, ²Department of Internal Medicine, Kafrelsheikh University, Kafrelsheikh, Egypt, ³Department of Veterinary Medical Sciences, College of Veterinary Medicine, Clemson University, Clemson, South Carolina, USA, ⁴US Dairy Forage Research Center, USDA-Agricultural Research Service, Madison, Madison, USA.</p>
10:30 AM		<p>Coffee Break: Ballpark Foyer – Sponsored by Innovad!</p>
11:00 AM	92718	<p>Functional and structural characterization of the enteric nervous system in broiler chickens: the inner intestinal barrier of defense against foodborne pathogens. V. Caputi*, A. M. Donoghue, and J. M. Lyte, <i>Poultry Production and Product Safety Research, USDA-ARS, Fayetteville, AR, USA.</i></p>

OTHER EVENTS

<p>Lunch Sponsorship Opportunity! Lindberg Room 12:00 PM - 1:30 PM</p>
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POSTER PRESENTATIONS

<p>Poster Session Ballpark Foyer 1:30 PM - 3:00 PM</p>	
92720	<p>Effect of <i>Salmonella enteritidis</i> challenge on the microbiome of 54-to-56-week-old layers. T. Lavergne*¹, C. Elrod¹, and M. Nascimento², ¹Natural Biologics, Inc., Newfield, NY, USA, ²Sapiens, Jundiai, Sao Paulo, Brazil.</p>
92713	<p>Deficiency in nitro-detoxification may limit <i>Salmonella</i> survivability in macrophages. A. Ingram¹, C. Johnson², N. Mast¹, R. Anderson*², and R. Arsenaault², ¹Department of Animal Science and Veterinary Technology, Texas A&M University-Kingsville, Kingsville, TX, USA, ²United States Department of Agriculture/Agricultural Research Service, Southern Plains Agricultural Research Center, Food and Feed Safety Research Unit, College Station, TX, USA.</p>
92733	<p>Impact of heat stress on intestinal barrier integrity in broilers: A comparison of low- and high-water efficient lines. M. F. Cuadrado*¹, B. Roach², E. S. Greene¹, K. R. Lassiter¹, W. G. Bottje¹, S. K. Orłowski-Workman¹, and S. Dridi¹, ¹University of Arkansas, Poultry Science, Fayetteville, AR, USA, ²Har-Ber High School, Springdale, AR, USA.</p>

92704	Standardization of methodologies in poultry microbiome research: One year of progress. J. Lyte* ¹ , D. Ayala ² , J. De Oliveira ³ , S. Dridi ⁴ , D. Grum ² , T. Johnson ⁵ , J. Kers ⁶ , M. Kogut ⁷ , J. Rehberger ⁸ , M. Seyoum ⁴ , A. Smith ⁸ , G. Zhang ⁹ , and M. Proskowiec-Weglarz ¹⁰ , ¹ USDA-ARS, Fayetteville, AR, USA, ² Purina Land O'Lakes, Gray Summit, MO, USA, ³ Cargill, Vilvoorde, Belgium, ⁴ University of Arkansas, Fayetteville, AR, USA, ⁵ University of Minnesota, Saint Paul, MN, USA, ⁶ Utrecht University, Utrecht, the Netherlands, ⁷ USDA-ARS, College Station, TX, USA, ⁸ Arm & Hammer Animal Nutrition, Waukesha, WI, USA, ⁹ Oklahoma State University, Stillwater, OK, USA, ¹⁰ USDA-ARS, Beltsville, MD, USA.
92716	Effects of stimbiotic on nutrient digestibility, oocyst shedding, blood profiles, intestinal gene expression of tight junction protein, and cecal microbiota in necrotic enteritis-challenged broiler. H. Kim*, S. Chang, D. Song, K. Jeon, and J. Cho, <i>Chungbuk National University, Cheong ju, Chungcheongbuk-do, Korea.</i>
92738	Subclinical exposure to multiple mycotoxins causes cecal microbiota dysbiosis in broiler chickens. L. Kappari ¹ , J. Lourenco ² , T. Applegate ¹ , A. Glenn ³ , and R. Shanmugasundaram* ³ , ¹ Department of Poultry Science, University of Georgia, Athens, GA, USA, ² Department of Animal and Dairy Science, University of Georgia, Athens, GA, USA, ³ Toxicology and Mycotoxin Research Unit, US National Poultry Research Center, Agricultural Research Service, US Department of Agriculture, Athens, GA, USA.
92728	Effect of yeast fermentate on rumen microbiota and gas emissions in an <i>in vitro</i> model. E. G. Olson* ¹ , A. Rodrigues ¹ , I. Ferreira ¹ , A. Scheaffer ² , and S. C. Ricke ¹ , ¹ University of Wisconsin–Madison, Madison, WI, USA, ² SweetPro, Wahalla, ND, USA.
92731	Effects of feeding cashew nutshell liquid on rumen fermentation characteristics and methane emission in Japanese Black beef cattle (Wagyu). Y. Uyeno* ¹ , Y. Sakai ² , T. Abe ³ , K. Takahashi ⁴ , T. Kuramoto ⁵ , and H. Iwata ⁵ , ¹ Shinshu University, Minamiminowa, Nagano, Japan, ² Japan Cattle Industry Cooperative, Tokyo, Japan, ³ National Livestock Breeding Center, Nishigo, Fukushima, Japan, ⁴ SDS Biotech K.K., Tokyo, Japan, ⁵ Tokyo University of Agriculture, Atsugi, Kanagawa, Japan.

OTHER EVENTS

Standardizing a Protocol for Poultry Microbiome Analysis/Other Production Animals?

Chair: **Monika Proskowiec-Weglarz, Glenn Zhang, Josh Lyte**

Ballpark I and II

3:00 PM - 4:30 PM

All Attendee Reception

[Sponsorship Opportunity!](#)

Lindberg Room

4:30 PM - 5:30 PM

Tuesday, November 12

Breakfast

[Sponsorship Opportunity!](#)

Lindberg Room

8:00 AM - 9:00 AM

Registration
Ballpark Registration Desk
8:00 AM - 4:30 PM

SYMPOSIA AND ORAL SESSIONS

Session 3 Chair: Brian Aldridge, Clemson University Ballpark I and II 9:00 AM - 12:00 PM		
9:00 AM	92725	The effects of heat stress and depressed feed intake on the cecal and ileal microbiota of broiler chickens. P. M. Campos* ¹ , M. Proszkowiec-Weglarz ¹ , and S. Dridi ² , ¹ USDA-ARS Animal Biosciences and Biotechnology Laboratory, Beltsville, MD, USA, ² Center of Excellence for Poultry Science, University of Arkansas, Fayetteville, AR, USA.
9:30 AM	92744	Effect of heat stress on jejunal metabolic profile in broiler chickens. E. S. Greene* ¹ , H. F. Castro ² , C. J. Christopher ² , S. R. Campagna ² , and S. Dridi ¹ , ¹ University of Arkansas, Fayetteville, AR, USA, ² University of Tennessee, Knoxville, TN, USA.
10:00 AM	92745	A curcumin derivative protease inhibitor mitigates <i>Brachyspira hampsonii</i>-induced swine dysentery. R. Puentes, R. Hannawayya, N. Mirzadzare, L. Perez-Perez, K. Tiedje, and E. R. Cobo*, <i>University of Calgary, Calgary, Alberta, Canada.</i>
10:30 AM		Coffee Break: Ballpark Foyer – Sponsored by Innovad!
11:00 AM	92737	Effects of dietary fats on diversity and function of cecal microbiota in broiler chickens. V. V. Jadhav*, Y. O. Fasina, P. C. Omaliko, J. Han, and S. H. Harrison, <i>North Carolina Agricultural and Technical State University, Greensboro, NC, USA.</i>

OTHER EVENTS

Lunch Sponsorship Opportunity! Lindberg Room 12:00 PM - 1:30 PM		
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SYMPOSIA AND ORAL SESSIONS

Session 4 Chair: Allen Byrd, USDA-ARS, College Station, Texas Ballpark I and II 1:30 PM - 4:30 PM		
1:30 PM	92392	The effect of oregano essential oil on the prevention and control of necrotic enteritis. Alexandra Desbruslais* ¹ , Laura Corbett ¹ , Matthew Jones ² , and Charles Hofacre ² , ¹ Anpario plc, <i>Workshop, Nottinghamshire, United Kingdom,</i> ² Southern Poultry Research Group, <i>Athens, GA, USA.</i>

2:00 PM	92721	A commensal bacterium protects chickens against necrotic enteritis. I. Tobin* ¹ , J. Liu ¹ , M. Whitmore ¹ , M. Kim ¹ , Z. Zhao ¹ , J. Guo ¹ , J. Scaria ² , and G. Zhang ¹ , ¹ <i>Department of Animal & Food Sciences, Oklahoma State University, Stillwater, OK, USA</i> , ² <i>Department of Veterinary Pathobiology, Oklahoma State University, Stillwater, OK, USA</i> .
2:30 PM	92726	A meta-analysis of necrotic enteritis in the microbiome. D. Varela and A. Ballou*, <i>SIWA, Iluma Alliance, Durham, NC, USA</i> .
3:00 PM		Coffee Break: Ballpark Foyer – Sponsorship Opportunity!
3:30 PM	92727	Intestinal microbiome confers strong colonization resistance against necrotic enteritis in chickens. J. Liu ¹ , M. Whitmore ¹ , I. Tobin ¹ , M. Kaiser ² , S. Lamont ² , and G. Zhang* ¹ , ¹ <i>Oklahoma State University, Stillwater, OK, USA</i> , ² <i>Iowa State University, Ames, IA, USA</i> .
4:00 PM	92734	Pathological and microbiological investigations of enteric disorders in post-weaning pigs: Association between pathogen co-infections and enteritis pattern. T. Hassan ¹ , S. Bagatella ¹ , M. I. Malik ¹ , A. Bellato ¹ , D. Ippolito ² , S. Zoppi ³ , M. B. Boniotti ⁴ , G. L. Alboralis ⁴ , and M. T. Capucchio* ¹ , ¹ <i>University of Turin, Department of Veterinary Sciences, Grugliasco (Torino), Italy</i> , ² <i>National Institute of Health, Department of Food Safety, Nutrition and Veterinary Public Health, Rome, Italy</i> , ³ <i>Istituto Zooprofilattico Sperimentale di Piemonte, Liguria e Valle d'Aosta, Torino, Italy</i> , ⁴ <i>Istituto Zooprofilattico Sperimentale della Lombardia e dell'Emilia-Romagna, Brescia, Italy</i> .

OTHER EVENTS

<p>All Attendee Reception Sponsorship Opportunity! Lindberg Room 4:30 PM - 5:30 PM</p>
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Wednesday, November 13

<p>Breakfast Sponsorship Opportunity! Lindberg Room 8:00 AM - 9:00 AM</p>

<p>Registration Ballpark Registration Desk 8:00 AM - 10:00 AM</p>
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SYMPOSIA AND ORAL SESSIONS

<p>Session 5 Chair: Brian Aldridge, Clemson University</p>
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Ballpark I and II
9:00 AM - 10:30 AM

9:00 AM	92464	Calycosin from Astragali Radix as a potential phytogetic feed additive in weaning piglets: <i>in vivo</i> and <i>in vitro</i> studies. J. Wang* ^{1,2} , ¹ <i>Institute of Animal Husbandry and Veterinary Medicine, Beijing Academy of Agriculture and Forestry Sciences, Beijing, China</i> , ² <i>Sino-US Joint Laboratory of Animal Science, Beijing Academy of Agriculture and Forestry Sciences, Beijing, China</i> .
9:30 AM	92735	Can the mixture of <i>Hermetia illucens</i> and <i>Tenebrio molitor</i> meals influence the gut health of broiler chickens? T. Hassan* ¹ , M. I. Malik ¹ , C. Sferra ¹ , M. Gariglio ¹ , I. Ferrocino ² , I. Biasato ² , L. Gasco ² , and M. T. Capucchio ¹ , ¹ <i>University of Turin, Department of Veterinary Sciences, Grugliasco (Torino), Italy</i> , ² <i>University of Turin, Department of Agricultural, Forest and Food Sciences, Grugliasco (Torino), Italy</i> .
10:00 AM	92736	Identifying and isolating primary degraders of resistant potato starch from the swine gastrointestinal tract. H. R. Watkins* ^{1,2} , C. L. Loving ¹ , and C. L. Anderson ¹ , ¹ <i>USDA-ARS-NADC, Ames, IA, USA</i> , ² <i>Iowa State University, Ames, IA, USA</i> .