



Time	#	Title	Location
		Immunology, Health and Disease – Health and Disease	
9:15 F	10	<i>In vitro</i> assessment evaluating the effect of auranofin, a thioredoxin reductase inhibitor, on <i>Histomonas meleagridis</i> . Taylor Schubauer* ^{1GS} , Evy Hafer ¹ , Aaron Forga ¹ , Kasey A. Matusik ¹ , Karen Echevarria ¹ , Melissa Martinez ¹ , Juan D. Latorre ¹ , Zhicheng Dou ² , Danielle Graham ¹ ¹ University of Arkansas, Fayetteville, Arkansas, United States ² Clemson University, Clemson, South Carolina, United States	205A-D
9:45 F	12	Evaluation of the effect of wheat-based diets on the intestinal microbiome of turkey poult infected with <i>Cochlosoma anatis</i> . Makenly E. Coles* ^{2GS} , Jamie Blankenship ² , Brett Hale ¹ , Kabel Robbins ³ , Elise Gerken ³ , Billy M. Hargis ² , Juan D. Latorre ² , Danielle Graham ² ¹ AgriGro Inc., Doniphan, Missouri, United States ² University of Arkansas, Fayetteville, Arkansas, United States ³ Butterball, Ozark, Arkansas, United States	205A-D
11:00 Su	244	Electron Beam–Killed Bacterial Vaccine as an Innovative Approach to Prevent Bacterial Chondronecrosis with Osteomyelitis Lameness in Broiler Chickens Adnan Alrubaye* ¹ , Ruvindu Perera ¹ , Palmy Jesudhasan ² ¹ University of Arkansas, Fayetteville, Arkansas, United States ² USDA-ARS, Fayetteville, Arkansas, United States	206E-F
10:00 F	366P	Comparing Salmonella Typhimurium strain virulence using chicken cecal enteroids and drop plating method Lauren M. Lavery* ^{1GS} , Kristen Martin ¹ , Juan D. Latorre ¹ , Danielle Graham ¹ , Billy M.Hargis ¹ ¹ University of Arkansas, Fayetteville, Arkansas, United States	106 & 107 Constitution Hall
10:00 Sa	409P	<i>In vitro</i> effects of protease inhibitors on <i>Histomonas meleagridis</i> and associated bacteria in xenic culture Taylor Schubauer* ^{1GS} , Evy Hafer ¹ , Aaron Forga ¹ , Kasey A. Matusik ¹ , Karen Echevarria ¹ , Melissa Martinez ¹ , Juan D. Latorre ¹ , Zhicheng Dou ² , Danielle Graham ¹ ¹ University of Arkansas, Fayetteville, Arkansas, United States ² Clemson University, Clemson, South Carolina, United States	106 & 107 Constitution Hall



		Processing and Products	
2:45 F	122	Effects of Endpoint Cooking Temperature on Broiler Breast Fillet Shear Energy and Yields Jeremy Summers ^{*1GS} , Sarah E. Johnson ¹ , Casey M. Owens ¹ ¹ University of Arkansas, Fayetteville, Arkansas, United States	203B-D
4:00 F	124	Wing Abduction Angle and Woody Breast Development in Broilers Fed Diets Differing in Nutrient Density and Probiotic Supplementation Sarah E. Johnson ^{*1GS} , Rosie Whittle ¹ , Jeremy Summers ¹ , Joaquin J. Esquivel Vergara ¹ , Karen M. Rivera ¹ , Allison D. Weaver ¹ , Benjamin Parsons ¹ , Shawna Weimer ¹ , Casey M. Owens ¹ ¹ University of Arkansas, Fayetteville, Arkansas, United States	203B-D
4:15 F	125	Improving Functionality of Woody Breast-Affected Broiler Meat with Proteolytic Enzyme Marination: Implications for Yield Krystell Charles ^{*1GS} , Kelley G. Wamsley ¹ , Amanda bushong ¹ , Casey M. Owens ² , Hudson Thames ¹ ¹ Mississippi State University, Starkville, Mississippi, United States ² University of Arkansas, Fayetteville, Arkansas, United States	203B-D
5:00 F	128	Shelf-life dynamics of poultry parts following PAA and eBeam treatments during refrigerated storage Seth O. Adesope ^{*1GS} , Eniola Betiku ¹ , Casey M. Owens ¹ , Palmy Jesudhasan ² , Suresh Pillai ³ , Tomi Obe ¹⁴ ¹ University of Arkansas System Division of Agriculture, Fayetteville, Arkansas, United States ² USDA-ARS, Fayetteville, Arkansas, United States ³ Texas A&M University, Texas, Texas, United States ⁴ Center for Food Safety, University of Arkansas System Division of Agriculture, Fayetteville, Arkansas, United States	203B-D
8:15 Mo	331	Processing Innovation and Technology: Industry Impacts and Opportunities Casey M. Owens ^{*1} ¹ University of Arkansas, Fayetteville, Arkansas, United States	203B-D
		Metabolism and Nutrition: Amino Acids	
8:30 F	15	Determination of Amino Acid Digestibility in Conventional and Low Oligosaccharide Soybean Meal Using Cecectomized Roosters, Broilers, and Turkeys. Kasey A. Matusik ^{*1GS} , Seth Hufford ¹ , Aaron Forga ¹ , Erin Zess ² , Matthew Begemann ² , Danielle Graham ¹ , Benjamin Parsons ¹ ¹ University of Arkansas, Fayetteville, Arkansas, United States ² Confluence Genetics, St. Louis, Missouri, United States	203B-D



9:45 F	20	Assessing the interactive effects of alanine, glycine, and proline in male broilers fed reduced crude protein diets from 15 to 35 days Kenneth B. Nelson ^{*1GS} , Pablo Escovar Ruidiaz ¹ , Spencer T. Karn ¹ , Virginia G. Slick ¹ , Savannah Wells ¹ , Michael Kidd ¹ ¹ University of Arkansas, Fayetteville, Arkansas, United States	203B-D
8:15 Sa	164	Practical assessment of dietary arginine needs of broilers Pablo Escovar Ruidiaz ^{*1GS} , Savannah Wells ¹ , Mitchell Vaught ¹ , Virginia G. Slick ¹ , Kenneth B. Nelson ¹ , Spencer T. Karn ¹ , Michael Kidd ¹ ¹ University of Arkansas, Fayetteville, Arkansas, United States	201A-F
10:45 Mo	347	Assessing Essential Amino Acid Requirements in Broiler Breeders at Peak Production Using a Refined Indicator Oxidation Approach Diego Martinez ^{*1} , Oscar Aguilar ¹ , Lindsey Conaway ¹ , Erik Pollock ¹ , Carol Ponce de Leon ² , Craig Coon ¹ ¹ University of Arkansas, Fayetteville, Arkansas, United States ² Independent consultant, Fayetteville, Arkansas, United States	202A-D
10:00 F	351P	Determining the conversion efficiency of phenylalanine to tyrosine in a modern broiler strain Kenneth B. Nelson ^{*1GS} , Michael Kidd ¹ , Benjamin Parsons ¹ ¹ University of Arkansas, Fayetteville, Arkansas, United States	106 & 107 Constitution Hall
10:00 Sa	413P	Impact of increasing dietary digestible tryptophan to lysine ratio in broiler breeder pullets on blood serotonin response Roshan Adhikari ^{*1} , Jason T. Lee ² , Anel Atencio ⁵ , Randy Mitchell ⁶ , Benjamin Parsons ³ , Samuel Rochell ⁴ ¹ CJ Bio America Inc, Downers Grove, Illinois, United States ² CJ Bio America, Goliad, Texas, United States ³ University of Arkansas, Fayetteville, Arkansas, United States ⁴ Auburn University, Auburn, Alabama, United States ⁵ Perdue Farms, Salisbury, Maryland, United States ⁶ Perdue Farms, Salisbury, Maryland, United States	106 & 107 Constitution Hall
Metabolism and Nutrition: General Nutrition			
9:00 F	25	Determination of phosphorus availability in conventional distillers dried grains with solubles and corn fermented protein with and without phytase use during fermentation at the ethanol plant Luke Parisi ^{*1GS} , Seth Hufford ¹ , Benjamin Parsons ¹ ¹ University of Arkansas, Fayetteville, Arkansas, United States	201A-F
12:00 F	34	Effects of ExPress® Soymeal on Growth Performance and Feed Conversion Efficiency in Broiler Chickens.	201A-F



		Tanner Thornton^{*1GS}, Tom Tabler¹, Yang Zhao¹, Michael Kidd², Janeth Colina³, Tong Wang¹, Jie Wu¹, Manita Kafle¹, Savannah Wells², Supun Hewage¹, Shawn Hawkins¹ ¹University of Tennessee, Knoxville, Tennessee, United States ²University of Arkansas, Fayetteville, Arkansas, United States ³InstaPro International, Grimes, Iowa, United States	
10:00 Sa	198	Methods for assessment of energy availability in lipid-based feedstuffs Benjamin Parsons^{*1} ¹University of Arkansas, Fayetteville, Arkansas, United States	201A-F
2:00 Sa	200	Testing metabolizable energy-derived net energy systems against an outcome-based energy system for predicting lean growth in broilers Diego Martinez^{*1}, Carol Ponce de Leon², Oscar Aguilar¹, Craig Coon¹ ¹University of Arkansas, Fayetteville, Arkansas, United States ²Independent Consultant, Fayetteville, Arkansas, United States	201A-F
Microbiology and Food Safety			
08:00 F	35	Farm to Processing Microbial Population Dynamics in a Non Conventional Poultry Operation Afrina Akter Turna^{*1GS}, Eniola Betiku¹, Tomi Obe¹² ¹University of Arkansas, Fayetteville, Arkansas, United States ²Center for Food Safety, University of Arkansas Division of Agriculture, Fayetteville, Arkansas, United States	202A-D
8:15 F	36	Sanitation-linked microbial ecology and diversity on equipment in pastured poultry processing Eniola Betiku^{*1GS}, Tomi Obe¹ ¹University of Arkansas Division of Agriculture, Fayetteville, Arkansas, United States	202A-D
1:45 F	100	Pre-harvest heat stress: disruption of microbial ecology and subsequent shelf-life of raw poultry products Mack P. Myer^{*1GS}, Taylor Fearing², Elizabeth Greene³, Sami Dridi³, Dana K. Dittoe¹ ¹University of Wyoming, Laramie, Wyoming, United States ²Wyoming Public Health Laboratory, Cheyenne, Wyoming, United States ³University of Arkansas, Fayetteville, Arkansas, United States	202A-D
2:00 Su	305	Microbial diversity and succession associated with poultry processing stages Tomi Obe^{*1}, Li Zhang², Eniola Betiku¹ ¹University of Arkansas Division of Agriculture, Fayetteville, Arkansas, United States	203B-D



		² Mississippi State University, Mississippi State, Mississippi, United States	
10:00 F	365P	Impact of electron beam treatment on pathogen reduction and resuscitation dynamics in refrigerated chicken breast fillets Tanmaie Kalapala* ^{1GS} , Komala Arsi ²³ , Geetha Kumar-Philips ¹ , Casey M. Owens ¹ , Tomi Obe ¹⁴ , Palmy Jesudhasan ³ ¹ University of Arkansas, Fayetteville, Arkansas, United States ² Poultry Production and Product Safety Research, Fayetteville, Arkansas, United States ³ USDA-ARS, Fayetteville, Arkansas, United States ⁴ Center for Food Safety. University of Arkansas Division of Agriculture, Fayetteville, Arkansas, United States	106 & 107 Constitution Hall
10:00 Sa	422P	Pre-harvest heat stress: connecting the intestinal microbial ecology to the final carcass Mack P. Myer* ¹ , Taylor Fearing ² , Elizabeth Greene ³ , Sami Dridi ³ , Dana K. Dittoe ¹ ¹ University of Wyoming, Laramie, Wyoming, United States ² Wyoming Public Health Laboratory, Cheyenne, Wyoming, United States ³ University of Arkansas, Fayetteville, Arkansas, United States	106 & 107 Constitution Hall
		Metabolism and Nutrition: Enzymes	
9:15 F	59	Evaluation of metabolizable energy release from carbohydrase enzymes using restrict-fed broiler chickens and precision-fed roosters McKayla Ward* ^{1GS} , Seth Hufford ¹ , Danielle Graham ¹ , Benjamin Parsons ¹ ¹ University of Arkansas, Fayetteville, Arkansas, United States	206E-F
9:30 F	60	Evaluation of the effects of sodium bisulfate and exogenous phytase supplementation on phytic acid hydrolysis, mineral digestibility, P bioavailability, and gastrointestinal pH in precision-fed roosters and restrict-fed broiler chickens Rebekah Drysdale* ^{1GS} , Seth Hufford ¹ , Benjamin Parsons ¹ ¹ University of Arkansas, Fayetteville, Arkansas, United States	206E-F
4:15 Su	315	In-feed supplementation of a new mannanase improves turkey growth and improves jejunal barrier integrity at day 49 through enhancement of stress- and immune-response Adebayo Sokale ² , Ayodeji Aderibigbe* ¹ , Dan Moore ³ , Anna Fickler ² , Sami Dridi ⁴ ¹ The Ohio State University, Wooster, Ohio, United States ² BASF SE, Ludwigshafen, Germany ³ Colorado Quality Research, Wellington, Colorado, United States ⁴ University of Arkansas, Fayetteville, Arkansas, United States	201A-F



3:15 Sa	430P	Dietary inclusion of phytase decreases the severity of bacterial chondronecrosis with osteomyelitis (BCO) in a wire-ramp challenge model in broilers Elizabeth Greene ^{*1} , Nusrat Jahan ¹ , Mike Bedford ² , Carrie L. Walk ² , Sami Dridi ¹ ¹ University of Arkansas, Fayetteville, Arkansas, United States ² AB Vista, Marlborough, United Kingdom	106 & 107 Constitution Hall
3:15 Sa	447P	Investigation of interactions between phytase, protease, and anti-nutritional factors in soybean meal Rebekah Drysdale ^{*1} , Seth Hufford ¹ , Benjamin Parsons ¹ ¹ University of Arkansas, Fayetteville, Arkansas, United States	106 & 107 Constitution Hall
Metabolism and Nutrition: Vitamins and Minerals			
9:00 Sa	179	Effects of phytase level and trace mineral source on broiler performance, processing yield, and myopathies Rahul Reddy ^{*1GS} , Rosana Hirai ¹ , Addison Elstner ¹ , Abigail Flores ¹ , Corbin Preusse ¹ , Kasey Young ¹ , Craig Wyatt ⁵ , Austin Jasek ⁴ , Chance Williams ² , Casey M. Owens ³ , Audrey McElroy ¹ ¹ Texas A&M University, College Station, Texas, United States ² Wayne Sanderson Farms, Hoschton, Georgia, United States ³ University of Arkansas, Fayetteville, Arkansas, United States ⁴ Zinpro Corporation, Eden Prairie, Minnesota, United States ⁵ AB Vista, Marlborough, United Kingdom	205A-D
11:45 Sa	187	Assessment of water-soluble vitamin levels on Cobb 800 male broiler performance Spencer T. Karn ^{*1GS} , Virginia G. Slick ¹ , Kenneth B. Nelson ¹ , Pablo Escovar Ruidiaz ¹ , Michael Kidd ¹ ¹ University of Arkansas, Fayetteville, Arkansas, United States	205A-D
12:00 Sa	188	Effects of Varying Levels of Vitamin A in the Starter Phase Diet in Male Cobb 800 Broilers Virginia G. Slick ^{*1GS} , Spencer T. Karn ¹ , Pablo Escovar Ruidiaz ¹ , Kenneth B. Nelson ¹ , Michael Kidd ¹ ¹ University of Arkansas, Fayetteville, Arkansas, United States	205A-D
1:30 Su	283	Assessment of organic chromium supplementation on performance, intestinal integrity, bone mineralization, and meat quality parameters in broiler chickens subjected to experimental cyclic heat stress Andressa S. Stein ¹ , Roberto Senas ¹ , Clay Maynard ¹ , Casey M. Owens ¹ , Guillermo Tellez-Isaias ¹ , Danielle Graham ¹ , Billy M. Hargis ¹ , Juan D. Latorre ^{*1} ¹ University of Arkansas, Fayetteville, Arkansas, United States	206A-D



10:00 F	359P	Determination of relative bioavailability of calcium in four limestone sources varying in apparent ileal digestibility of calcium in broiler chickens Juan Carlos Valencia Beltran^{*2GS}, Pam L. Utterback¹, Jason Lee Emmert¹, Benjamin Parsons², Carl Parsons¹ ¹University of Illinois, Urbana-Champaign, Illinois, United States ²University of Arkansas, Fayetteville, Arkansas, United States	106 & 107 Constitution Hall
3:15 F	382P	Further assessment of 1,25(OH)2D3-glycosides supply duration on reducing bacterial chondronecrosis with osteomyelitis lameness in broilers Ashen E. Arachchi^{*1GS}, Anh Do¹, Ruvindu Perera¹, Woro W. Kalanjati², Andi Asnayanti², Mian R. Ahmed³, Shashtej Mummadi³, Zoe Zeman⁴, Kathrin Buehler⁵, Jan Dirk V. Klis⁵, Michael Kidd², Adnan Alrubaye¹ ¹University of Arkansas, Fayetteville, Arkansas, United States ⁵Herbonis Animal Health GmbH (Innovad Group), Augst, Switzerland	106 & 107 Constitution Hall
10:00 Sa	410P	In-feed Supplementation with Metal Amino Acid Complexed Zinc May Improve Early Performance and Bone Deposition in aMPV Vaccinated Turkey Poults Aaron Forga^{*1}, Diego Cortes¹, Seth Hufford¹, Kasey A. Matusik¹, Taylor Schubauer¹, Henrietta Owusu¹, Karen Echevarria¹, Melissa Martinez¹, Cole Crumpacker², Kabel Robbins², Benjamin Parsons¹, Danielle Graham¹ ¹University of Arkansas, Fayetteville, Arkansas, United States ²Butterball LLC, Garner, North Carolina, United States	106 & 107 Constitution Hall
Management and Production			
3:15 F	392P	Influence of divergent selection for water efficiency on hatchability, embryonic mortality, and hatch window characteristics in poultry Rovin Sanjur Caballero^{*1GS}, Naomi Boysen¹, Kelvin Sanchez Rivera¹, Hailey Andrews¹, Maricela Maqueda¹, Sara Orlowski-Workman¹ ¹University of Arkansas, Fayetteville, Arkansas, United States	106 & 107 Constitution Hall
3:15 F	393P	The effect of heat stress on thermal regulation and growth in broiler breeder hens selected for water efficiency Allison D. Weaver^{*1GS}, Karen M. Rivera¹, Rosie Whittle¹, Maricela Maqueda¹, Sara Orlowski-Workman¹, Gregory S. Fraley², Shawna Weimer¹ ¹University of Arkansas, Fayetteville, Arkansas, United States ²Purdue University, West Lafayette, Indiana, United States	106 & 107 Constitution Hall



10:00 Sa	425P	Processing Yields and Meat Quality of Broilers from Divergent Water-Efficiency Lines Subject to Short-Term Water Deprivation Sarah E. Johnson ^{*1} , Rosie Whittle ¹ , Karen M. Rivera ¹ , Sara Orłowski-Workman ¹ , Shawna Weimer ¹ , Casey M. Owens ¹ ¹ University of Arkansas, Fayetteville, Arkansas, United States	106 & 107 Constitution Hall
10:00 Sa	426P	The Effect of Thermal Environment and Water-Efficiency Genetic Selection Influence on Yield Distribution and Breast Meat Quality in Broilers Sarah E. Johnson ^{*1} , Jeremy Summers ¹ , Rovin Sanjur Caballero ¹ , Maricela Maqueda ¹ , Naomi Boysen ¹ , Kelvin Sanchez Rivera ¹ , Hailey Andrews ¹ , Rosie Whittle ¹ , Shawna Weimer ¹ , Sara Orłowski-Workman ¹ , Casey M. Owens ¹ ¹ University of Arkansas, Fayetteville, Arkansas, United States	106 & 107 Constitution Hall
Physiology and Reproduction			
11:00 Sa	146	Tibiotarsus morphometry in broilers selected for water efficiency following short-term water deprivation Rosie Whittle ^{*1} , Karen M. Rivera ¹ , Sara Orłowski-Workman ¹ , Gregory S. Fraley ² , Maricela Maqueda ¹ , Shawna Weimer ¹ ¹ University of Arkansas, Fayetteville, Arkansas, United States ² Purdue University, West Lafayette, Indiana, United States	206A-D
Genetics and Molecular Biology			
9:30 Su	257	Dietary protein source and Salmonella modulate cecal monoamine oxidase activity in chickens Samiru Wickramasuriya ¹ , Sungyong Jung ² , Joshua M. Lyte ^{*1} ¹ USDA-ARS Poultry Production and Product Safety Research Unit, Fayetteville, Arkansas, United States ² South Dakota State University, Brookings, South Dakota, United States	202A-D
10:00 Mo	494P	Characterization of proteomics in hypothalamus of male broiler breeders divergently selected for low and high water efficiency Kentu Lassiter ^{*1} , Sara Orłowski-Workman ¹ , Maricela Maqueda ¹ , Kirsten M. Shafer ¹ , Elizabeth Greene ¹ , Sami Dridi ¹ , Walter G. Bottje ¹ ¹ University of Arkansas, Fayetteville, Arkansas, United States	106 & 107 Constitution Hall
10:00 Mo	495P	Characterization of proteomics in hypothalamus of female broiler breeders divergently selected for low and high water efficiency Kentu Lassiter ^{*1} , Sara Orłowski-Workman ¹ , Maricela Maqueda ¹ , Kirsten M. Shafer ¹ , Elizabeth Greene ¹ , Sami Dridi ¹ , Walter G. Bottje ¹ ¹ University of Arkansas, Fayetteville, Arkansas, United States	106 & 107 Constitution Hall
Animal Well-being and Behavior			
2:15 F	90	Growth performance and preference of broiler chickens under two light treatments	206E-F



		Karen M. Rivera ^{*1GS} , Allison D. Weaver ¹ , Rosie Whittle ¹ , Rovin Sanjur Caballero ¹ , Shawna Weimer ¹ <i>¹University of Arkansas, Fayetteville, Arkansas, United States</i>	
5:00 Sa	218	Research and Innovation Perspectives: Global Pathways for Poultry Welfare in 2050 Shawna Weimer ^{*1} , Elena Myhre ² , Anne-Marie Neeteson-van-Nieuwenhoven ³ , Rodolfo Arreaga ⁴ , Kate Barger ⁵ , Ruth Newberry ⁶ , Katy Tarrant ⁷ , Gregory S. Fraley ⁸ <i>¹University of Arkansas, Fayetteville, Arkansas, United States</i> <i>²International Poultry Welfare Alliance, Crawfordville, Florida, United States</i> <i>³Aviagen Ltd., Newbridge, United Kingdom</i> <i>⁴Universidad del Valle de Guatemala, Guatemala City, Guatemala</i> <i>⁵KB Welfare Consulting, Seneca, North Carolina, United States</i> <i>⁶Norwegian University of Life Sciences, Ås, Norway</i> <i>⁷Fresno State, Fresno, California, United States</i> <i>⁸Purdue University, West Lafayette, Indiana, United States</i>	203B-D
4:45 Su	312	From worms to welfare: Can inducing play behavior give us a window into chick welfare? Rosie Whittle ^{*1} , Sara Orlowski-Workman ¹ , Maricela Maqueda ¹ , Shawna Weimer ¹ <i>¹University of Arkansas, Fayetteville, Arkansas, United States</i>	206E-F
Metabolism and Nutrition: Feed additives			
9:15 Sa	191	Evaluation of the effect of a spore-forming oligosaccharide degrading probiotic on metabolizable energy, oligosaccharide disappearance, and cecal volatile fatty acid concentrations using restrict-fed broiler chickens. Seth Hufford ^{*1GS} , Kyle D. Teague ¹ , Chrysta N. Beck ² , Gisela F. Erf ¹ , Benjamin Parsons ¹ <i>¹University of Arkansas, Fayetteville, Arkansas, United States</i> <i>²Mississippi State University, Starkville, Mississippi, United States</i>	202A-D
5:15 Sa	229	Assessing a Novel Phytogenic Formulation in Broilers Challenged with Subclinical Enteritis Karla Lopez ^{*1} , Sammy Velapatino ² , Viviana San Martín ¹ , Carlos Vilchez Perales ² , David Rueda ¹ , María Huauya ² , Wilson López ² , Eder Taboada ² , Kendall González ² , Carol Ponce de Leon ³ , Diego Martinez ⁴ <i>¹CKM SAC, Lima, Peru</i> <i>²La Molina National Agrarian University, Lima, Peru</i> <i>³Independent consultant, Fayetteville, Arkansas, United States</i> <i>⁴University of Arkansas, Fayetteville, AR</i>	202A-D



9:15 Su	256	Reduction of liver injury and fibrosis induced by carbon-tetrachloride in chickens supplemented with artichoke extract, lemon essential oil and silymarin Frank Ayala^{*1}, Freddy Farfan¹, Eliana Icochea², Lenin Maturrano⁴, Guillermo Tellez-Isaias³ ¹Laboratorios Drogavet, Lima, Peru ²Laboratory of Avian Pathology, Faculty of Veterinary Medicine, Universidad Nacional Mayor de San Marcos, Lima, Peru ³University of Arkansas, Fayetteville, Arkansas, United States ⁴Laboratory of Biology and Molecular Genetics, Faculty of Veterinary Medicine, Universidad Nacional Mayor de San Marcos, Lima, Peru	202A-D
8:30 Su	460P	Alleviation of carbon-tetrachloride induced liver damage supplemented by a blend of artichoke extract, vitamin B complex, amino acids, lemon essential oil and silymarin in chickens Frank Ayala^{*2}, Freddy Farfan², Eliana Icochea³, Lenin Maturrano⁴, Guillermo Tellez-Isaias¹ ¹University of Arkansas, Fayetteville, Arkansas, United States ²Laboratorios Drogavet, Lima, Peru ³Laboratory of Avian Pathology, Faculty of Veterinary Medicine, Universidad Nacional Mayor de San Marcos, Lima, Peru ⁴Laboratory of Biology and Molecular Genetics, Faculty of Veterinary Medicine, Universidad Nacional Mayor de San Marcos, Lima, Peru	106 & 107 Constitution Hall
10:00 Mo	492P	Effects of Dietary Nutrient Density and Probiotic Supplementation on Feed Efficiency, Processing Yield, and Myopathy Incidence in Broilers Sarah E. Johnson^{*1GS}, Jeremy Summers¹, Joaquin J. Esquivel Vergara¹, Rosie Whittle¹, Karen M. Rivera¹, Allison D. Weaver¹, Benjamin Parsons¹, Shawna Weimer¹, Casey M. Owens¹ ¹University of Arkansas, Fayetteville, Arkansas, United States	106 & 107 Constitution Hall
Symposium: Inter-Generational Nutrition and Gut Health			
10:45 Sa	1019S	Low CP strategies and gut health: Post-starter periods Michael Kidd^{*1}, Kenneth B. Nelson¹, Pablo Escovar Ruidiaz¹, Garrett J. Mullenix² ¹University of Arkansas, Fayetteville, Arkansas, United States ²Cargill Animal Nutrition, Elk River, Minnesota, United States	John W. H. Bassett Theatre



		Immunology, Health and Disease – Immunology	
10:45 F	68	Efficiency of In-Ovo eBeam-inactivated Clostridium perfringens vaccine Against Necrotic Enteritis in SPF layer chickens Mohamad O. Jaradat*^{1GS}, Bikas R. Shah¹, Shuja Majeed¹, Iddris M. Habib¹, Nimra Khalid¹, Palmy Jesudhasan², Ali Nazmi³ ¹The Ohio State University, Wooster, Ohio, United States ²USDA-ARS, Fayetteville, Arkansas, United States ³Ohio State University, Loudonville, Ohio, United States	203B-D
2:00 Su	290	Impact of environmental cyclic heat stress on blood leukocyte profiles of modern random-bred and divergent high- and low-water conversion broiler breeder hens Jossie M. Santamaria¹, Allison D. Weaver*¹, Rosie Whittle¹, Karen M. Rivera¹, Gisela F. Erf¹, Sara Orlowski-Workman¹, WalterG. Bottje¹, Shawna Weimer¹ ¹University of Arkansas System Division of Agriculture, Fayetteville, Arkansas, United States	206E-F
2:15 Su	291	Nutritional energy deficiency alters humoral immunity in broiler chicks Chrysta N. Beck*¹, Jossie M. Santamaria², Seth Hufford², Gisela F. Erf², Benjamin Parsons² ¹Mississippi State University, Mississippi State, Mississippi, United States; ²University of Arkansas System Division of Agriculture, Fayetteville, Arkansas, United States	206E-F
10:00 Sa	412P	The effects of cyclic heat stress on blood cell profiles and antibody concentrations in broilers selected for low water conversion ratio compared to the modern random-bred broiler Luke Janski¹, Chrysta N. Beck², Jossie M. Santamaria¹, Sara Orlowski-Workman¹, Walter G. Bottje¹, Gisela F. Erf*¹ ¹University of Arkansas System Division of Agriculture, Fayetteville, Arkansas, United States ²Mississippi State University, Mississippi State, Mississippi, United States	106 & 107 Constitution Hall
3:15 Sa	432P	BCO lameness incidence and splenic immune responses in broiler chickens following in ovo injections of electron beam-inactivated BCO-causative bacteria Layla Al-Mitib*¹, Ruvindu Perera¹, Palmy Jesudhasan³, Jossie M. Santamaria², Anh Do⁶, Adnan Alrubaye¹ ¹University of Arkansas, Fayetteville, Arkansas, United States ²University of Arkansas System Division of Agriculture, Fayetteville, Arkansas, United States ³USDA-ARS, Fayetteville, Arkansas, United States	106 & 107 Constitution Hall



		Symposium: Methodology Matters	
3:30 Su	1059S	Importance of methods selected for microbiome studies: State of the science and challenges Joshua M. Lyte^{*1}, Monika Proszkowiec-Weglarz² ¹USDA-ARS Poultry Production and Product Safety Research Unit, Fayetteville, Arkansas, United States ²USDA, ARS, Beltsville, Maryland, United States	John W. H. Bassett Theatre

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Please plan to attend this symposium if possible (as it got overlapped with the normal processing and products session) **JULY 10 1:15 pm.**



Processing and Products Symposium

Poultry in Pet Food: Meeting Market Demands through Science and Innovation

Chairs: Casey Owens, University of Arkansas and J.P. Caldas, Fresh Pet

Featured Speakers:

Leah Lambrakis, Simmons Foods

Shannon Harrison, Simmons Foods

B.J. Bench, Tyson Foods