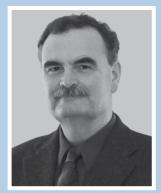
# 47th AASV Annual Meeting February 27 - March 1, 2016 New Orleans

# Standing on the Shoulders of Giants: Collaboration & Teamwork

### Message from the Program Chair, Dr. George Charbonneau



Our meeting in The Big Easy is sure to provide some warm weather that will be a welcome break from Old Man Winter. New Orleans offers an exciting venue with its Cajun cuisine, New Orleans Jazz and lots of history. As we gather in New Orleans we will have a wonderful opportunity to renew relationships with

friends and colleagues. Each year we are presented with opportunities to change the way that we think about serving our profession, industry and clients. More importantly, it is an opportunity to renew our commitment to advocate for and do what is right for the pigs that are under our care.

At last year's annual meeting, a number of speakers including Drs. Stevenson, Daniels, Webb and Desrosiers discussed the importance of collaboration and teamwork in managing the issues that we collectively face. No one individual or even organization is capable of "moving the ball all the way down the field" on their own and these speakers charged our association to work collaboratively.

The 2016 conference theme reflects a continuation and expansion of that charge and draws on the famous quote of Sir Isaac Newton, who said "If I have seen further, it is by standing on the shoulders of giants." Newton was paying homage to those who preceded him and enlightened his thinking. I would argue that a collaborative team process provides that same type of enlightenment in real time. The AASV Program Committee supported "Standing on the Shoulders of Giants: Collaboration and Teamwork" as the theme for this year's annual meeting and I am sure that you will readily see this theme woven throughout the fabric of the meeting.

Dr. John Harding will present this year's Howard Dunne Memorial Lecture entitled "Emergence of *Brachyspira hampsonii* in western Canada: A collaborative success." Dr. Harding will provide a healthy measure of science of emerging diseases while discussing the value of a collaborative process in managing an emerging disease. Dr. Peggy Anne Hawkins will follow with the Alex Hogg Memorial Lecture, "Whose shoulders are we standing on?" As we head towards AASV's 50<sup>th</sup> Anniversary, Dr. Hawkins will visit with us about the changing demographics of our organization and how this might affect how we interact as a team.

Monday's general session will also address neonatal immunology, on-farm welfare audits, and public perception. Porcine epidemic diarrhea will continue to receive a fair share of attention in a Monday afternoon concurrent session devoted to swine enteric coronaviruses. PRRS, *Mycoplasma*, and influenza will be addressed during another concurrent session. This year there will be an entire concurrent session devoted to antimicrobial resistance, antimicrobial use, and the increasing role of veterinary oversight.

This year also marks the beginning of a new adventure for AASV with the launch of the Swine Health Information Center. Time is of the essence in delivering results. The Tuesday general session is devoted to the management of emerging diseases. The lessons learned during recent encounters with porcine epidemic diarrhea, high-path avian influenza, and Senecavirus A will provide the backdrop for an examination and discussion of the critical issue of emerging disease response. We will be challenged to think globally and be prepared to act locally. You will not want to miss this session.

I appreciate having the opportunity to serve as this year's program chair. Thank you so much to the AASV Program Committee and AASV staff for all of their hard work. A job well done. Your annual meeting is a great example of collaboration and teams at work. I look forward to seeing you in New Orleans.

> Let the Good Times Roll! George Charbonneau, DVM Program Chairman



# **Program Committee**

#### George Charbonneau, Chair

Glen Almond Matt Anderson Ron Brodersen C. Scanlon Daniels Mark Engle Jeff Harker Samuel Holst Megan Inskeep Jennifer Koeman Daniel Kovich Chris Rademacher Alex Ramirez Kent Schwartz Michelle Sprague Mike Tokach Blaine Tully Sherrie Webb

# Information Technology

### **Mobile App**

Keep track of when and where you need to be with the free AASV mobile conference app! It's loaded with the most up-to-date schedule, speaker and exhibitor information, interactive maps of the conference rooms, and links to proceedings papers. Use it to create your personal schedule and "to do" list. The app will be available for download from the iOS and Android app

stores using the redeem code emailed to conference registrants February 15. An HTML5 version will also be available for web-based devices.

### Proceedings

All proceedings papers (including seminar papers) will be available for download from the AASV website prior to and during the meeting. There will be no printed proceedings.



For more information: www.aasv.org/annmtg

# **Registration & Fees**

### Registration

### Registration desk located in Celestin Foyer

Saturday, Feb 27	7:00 AM – 5:00 PM
Sunday, Feb 28	7:00 am – 5:00 pm
Monday, Feb 29	7:00 am – 5:00 pm
Tuesday, March 1	7:00 AM - 12:00 PM

### Fees

#### Register online at www.aasv.org/annmtg

AASV member pre-registration	\$345
AASV member registration after February 5	\$445
Non-member veterinarian registration	\$475
Add'l Tech Table representatives (limit 3)	\$475

### **Meeting Hotel**

Hyatt Regency New Orleans 601 Loyola Ave New Orleans, Louisiana 70113 Tel: 504-561-1234

### www.aasv.org/annmtg/2016/lodging.htm

### **Session Locations**

Unless otherwise noted, the meeting rooms for conference sessions are located on **level 3** of the Hyatt Regency New Orleans.

### **Continuing Education Credit**

Up to twenty (20) credit hours of veterinary continuing education are available for attendance during the regular meeting sessions on Sunday 8:00 AM through Tuesday 12:00 PM. Four (4) credit hours are available for the PRRS Risk Assessment Training and each of the pre-conference seminars on Saturday.

## Officers

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Student Delegate Emily Mahan-Riggs 59 Dexter Ridge Angier, NC 27501 USA

# **Technical Tables**

Location: Storyville Monday: 9:00 AM – 5:00 PM Tuesday: 8:00 AM – 12:00 PM

**AgCreate Solutions** AgriLabs AgroSoft Allflex USA/Destron Fearing Alltech Animal Health International **Animal Science Products** APC Aptimmune **ARKO** Laboratories Aurora Pharmaceutical Automated Production Systems **Bayer Healthcare BioChek** Biomin **Biovet Bock Industries Boehringer Ingelheim** Ceva Animal Health **ChemoMetec** Chr. Hansen **Christian Veterinary Mission Diamond V DNA Genetics DSM Nutritional Products** Elanco Animal Health **Fast Genetics** FDA Center for Veterinary Medicine Feedstuffs & National Hog Farmer GenePro Genesus GlobalVetLINK Grazix Animal Health Harrisvaccines Hermitage NGT Hog Slat Huvepharma Hypor USA **IDEXX** Laboratories

# **Technical Tables**

IDT Biologika – Gallant Custom Laboratories **IMV** Technologies USA **Insight Wealth Group** IVESCO, an MWI Company JBS United Animal Health **Ketchum Manufacturing** Magapor MAI Animal Health Merck Animal Health Merial Minitube International **MOFA Global MVP** Laboratories National Pork Board National Pork Producers Council Nedap Livestock Management **Neogen Corporation Newport Laboratories** Norbrook Nutriquest Pharmacosmos **Pharmgate Animal Health Phibro Animal Health Corporation** PIC **PigCHAMP PigKnows PigTek/Fancom** Preserve International PureTek Genetics **Quality Technology International RTI** – Research Technology Innovation Struve Labs International Stuart Products Swine Health Information Center (SHIC) Swine Medicine Education Center (SMEC) **TechMix Topigs Norsvin USA USDA APHIS Veterinary Services** Veterinary Sales & Service Virox Animal Health Xcluder Zinpro Corporation Zoetis

### **Risk Assessment Training**

### Web-based PRRS Risk Assessment Training for the Breeding Herd

Date: Saturday, February 27 Time: 7:30 AM – 12:30 PM Location: Strand 10A Fee: No charge Limit: 20 participants, AASV members only Coordinator: Derald Holtkamp

This training will guide you through the use of the webbased PRRS Risk Assessment known as the Production Animal Disease Risk Assessment Program (PADRAP). PADRAP allows you to view benchmarking reports immediately after submitting an assessment.

Three ways veterinarians have applied the PRRS Risk Assessment:

- Evaluate current biosecurity protocols and/or develop new biosecurity protocols to avoid risk
- Communicate risks and the importance of biosecurity procedures to clients or production personnel
- Aid in the decision to initiate a project to eliminate PRRSV from a breeding herd site and identify modifiable risk factors in an effort to increase the likelihood that an elimination project will be successful long-term.

This session is open to AASV member veterinarians who have not previously used the PRRS Risk Assessment, as well as those who have previously been trained on the spreadsheet version. Please bring a laptop capable of accessing the internet via wireless connection using one of the following web browsers: Mozilla Firefox, Google Chrome or Internet Explorer.



# **Risk Assessment Training**

7:30	Welcome and introductions (note the early start time!) Derald Holtkamp
7:45	Incorporating information already in PADRAP to expedite data collection for Seneca Valley Virus outbreak investigations Kim Gerardy
8:15	Overview of PRRS Risk Assessment Dale Polson
8:45	"How to" tour of PADRAP Resetting/retrieving your password, creating a new production system, set ting up a site and survey, navigating through a survey, duplicating and taking multiple surveys <b>Chris Mowrer</b>
9:45	BREAK
10:00	Hands-on use of the risk assessment; User interview <b>Dale Polson</b>
12:00	Demonstration of pareto chart and the database and benchmarking tool for risk assessment data; exporting raw data: Interpreting results <b>Derald Holtkamp</b>
12:30	Training concludes



### **AASV's Got Talent**

Date: Saturday, February 27 Time: 1:00 – 5:00 PM Location: Celestin D Fee: \$80 Chair: Jeff Harker

Prepare to learn all the latest at the AASV's version of America's Got Talent. These practitioners will be attempting to impress a panel of judges to be named "Tipster of the Year." Presentations covering all topics should give every attendee something to take home and use. From technology to interpersonal topics to pigs, expect this to be a very dynamic and lively afternoon.

1:00	Innovative shoulder sore treatment Lori Feldmann
1:15	Experiences with Seneca Valley virus Dave Bomgaars
1:30	Swine DIY Whitney Burton
1:45	Epidurals and C-sections Daniel Hendrickson
2:00	Learning to use the SMEC video library Paisley Canning
2:15	Solutions to stock solutions Mike Strobel
2:30	Laryngeal swab tricks and tips Shamus Brown
2:45	BREAK
3:15	Gender challenges at hog farms Natalie Baker

3:30	Multigenerational teams that work Bill Hollis
3:45	Digital photography tips Locke Karriker
4:00	Fresh out of vet school; tips from a newbie Megan Schnur
4:15	Social media; staying connected Egan Brockhoff
4:30	Working through the "generation gap" Jason Hocker
4:45	Life hacks: Things I've learned from 25 years of shower-in, shower-out Lisa Tokach
5:00	Session concludes

### **AASV STUDENT TRIVIA EVENT**



Sponsored by: MERCK ANIMAL HEALTH Saturday, February 27 7:00 PM

Rampart Room (offsite, above Walk-On's Bistreaux and Bar)

### **Pharmaceutical Hot Topics**

Date: Saturday, February 27 Time: 1:00 – 5:00 PM Location: Celestin B Fee: \$95 Chair: Sam Holst

Antibiotics and other pharmaceutically based topics are among those with the most potential impact on the swine industry. While Guidance for Industry #213 and the VFD rule are at the forefront of these topics, those particular items will be discussed during a concurrent session on Monday afternoon. This seminar will deliver information and experiences regarding antibiotic use internationally and discuss the concept of antibiotic stewardship. An update from Washington DC on current and future legislation related to antibiotics will also be provided. Additionally, procedures and measures that distributors of veterinary pharmaceuticals should have in place in order to be on the right side of an FDA audit will be covered. Finally, the most up-to-date information regarding pain management will be addressed.

1:00	Update on current and upcoming antibiotic legislation (non-VFD related) Liz Wagstrom
1:30	The European antibiotic experience Peter Davies
2:00	The Australian antibiotic experience Chris Richards
2:30	Antibiotic stewardship Christine Hoang
3:00	BREAK
3:30	FDA audit preparation for distributors of veterinary pharmaceuticals <b>Mike Apley</b>
3:50	Measuring and assessing pain in animals Pat Turner

- 4:10 Mitigating and managing pain in swine production Monique Pairis-Garcia
- 4:30 Roundtable Q&A All speakers
- 5:00 Seminar concludes



### **Current Issues in Swine Reproduction**

Date: Saturday, February 27 Time: 1:00 – 5:20 PM Location: Celestin C Fee: \$95 Chair: Glen Almond

This seminar will provide up-to-date information and guidance on current issues in modern swine reproduction. Some of the topics will address new technologies, while others will report on production issues facing the industry. The presentations will be practical and applied. Veterinarians should be comfortable either adapting the new technologies or solving problems with their clients' herds.

1:00	The advantages of post-cervical artificial insemination (PCAI) implementation in a sow farm <b>John Sonderman</b>
1:40	Batch farrowing in commercial sow farms James Kober
2:20	Current strategies in boar management Billy Flowers
3:00	BREAK
3:20	Gilt management for improved performance Jenny Patterson
4:00	Updates on sow longevity Billy Flowers and Jenny Patterson
4:40	Uterine prolapses in sows: An emerging concern Bob Thompson and Emily Mahan-Riggs
5:20	Seminar concludes

### **Swine Welfare**

Date: Saturday, February 27 Time: 1:00 – 5:30 PM Location: Celestin A Fee: \$95 Chair: Sherrie Webb Moderator: Jamee Amundson

From shoulders to tails and everything in between, this seminar will cover hot topics in the area of swine welfare and care. Speakers in this session will cover trends in gestation housing and different housing options being used in lactation. We'll also explore potential pitfalls of managing heavier finishing pigs. Whether you work with sows or finishers or have interest in becoming a certified animal welfare expert, this seminar has something for you!

1:00	Sow shoulder sores Fiona Lang
1:30	Economics of implementing gestation housing options <b>Kent Bang</b>
2:00	Lactation housing options Tom Parsons
2:30	Tail docking and tail biting Yuzhi Li
3:00	BREAK
3:30	American College of Animal Welfare: Becoming an accredited expert <b>Meghann Pierdon</b>
4:00	Managing heavier finishing pigs Mike Brumm

- 4:30 Keeping pigs on their feet Paisley Canning
- 5:00 Penalty at the 10-yard line: Potential new handling rules at the packing plant Dan Kovich
- 5:30 Seminar concludes



### **Operation Main Street Training**

Date: Saturday, February 27 Time: 1:00 – 5:15 PM Location: Strand 11A & B (level 2) Fee: no charge Limit: 25 participants; US AASV member veterinarians only Chair: Al Eidson Co-sponsored by AASV and the National Pork Board

In 2011, AASV and the National Pork Board partnered to train veterinarians as Operation Main Street (OMS) speakers, with a goal to help focus pork industry outreach efforts to professional veterinary associations, schools of veterinary medicine, and veterinary technical colleges.

To date, the program has 90 OMS-trained veterinarians who have presented at 26 of 30 schools of veterinary medicine. Overall, more than 150 OMS speeches have been scheduled, with an audience reach of 9,900.

This training updates participants on what activists are saying about agriculture today, and will provide attendees with the needed tools and presentations to address those concerns in a science-based, proactive manner. The objective is to equip veterinarians to speak to veterinary students and professional groups including veterinary associations and dieticians. Unless otherwise indicated, presentations will be made by Al Eidson.

1:00	Welcome, overview, and introductions Al Eidson
1:15	Antibiotic update Jennifer Koeman
2:00	A presentation for schools of veterinary medicine <b>Rick Tubbs</b>
3:00	BREAK
3:45	Overview of the industry structure, trust model, and US Farmers and Ranchers Alliance (USFRA) messages

**4:00** Issue updates and answering common questions 4:00 Animal care and well-being

4:30 Environment

- **4:45** Events at schools of veterinary medicine; speaking to civic groups, dieticians, and county commissioners
- 5:15 Training evaluation; Seminar concludes





**Sunday, February 28** 7:00 – 8:00 AM Imperial 5 (level 4)

Coordinators: Mark Brinkman, Monte Fuhrman, and Mitch Christensen

### **Sponsored by Stuart Products**

For many, Sunday is a day to gather with family and friends for spiritual nourishment and encouragement in faith. Bring your family and join your AASV friends for breakfast, music, and fellowship at the AASV Praise Breakfast!

Praise our Lord with the AASV praise team. Then receive a God-directed message provided by AASV member Dr. Greg Stevenson!

Your free-will offering, along with support from Stuart Products, will defray the cost of the breakfast. The program will conclude by 8:00 AM to allow you to attend the meeting sessions, but feel free to stay and visit.

All AASV meeting attendees and their family members are welcome!

#### Blisters and Quarantines, No Exports – Oh, My!

Date: Sunday, February 28 Time: 8:00 AM – 12:00 PM Location: Celestin A Fee: \$95 Chair: Patrick Webb Moderator: David Pyburn

We are not in Kansas anymore, Dorothy! African swine fever is on the move in the EU, and classical swine fever lurks as close as the Caribbean. There are more countries with foot and mouth disease than there are without, and the poultry industry has just experienced the biggest foreign animal disease (FAD) outbreak in US history. This tornado of disease activity combined with the everincreasing global commerce of people, products, and inputs for production means one thing: we better have our house in order before the big one hits! So put on your ruby red slippers and follow the yellow brick road to this seminar to learn about cutting-edge FAD response strategies and the important role you play in early disease detection, rapid response, and managing production when faced with an FAD that shuts down trade and commerce.

8:00	Foreign animal disease overview Barbara Porter-Spalding
8:45	Federal planning: Managing disease control areas Barbara Porter-Spalding
9:30	BREAK
10:00	State perspective: Practical management for control areas Jimmy Tickel
10:45	Secure Food Supply Plans Jim Roth
11:30	Roundtable Q&A All speakers
12:00	Seminar concludes

### Zoonoses, Workplace Safety, and Mental Health: The Confluence of Pigs and People

Date: Sunday, February 28 Time: 8:00 AM – 12:00 PM Location: Celestin B Fee: \$95 Seminar chair: Jennifer Koeman

We're all so focused on herd health that we sometimes take our own health and that of producers and farm workers for granted. This seminar is designed to help you recalibrate your thinking at the intersection of pigs and people. Come learn more about health and safety topics, including zoonoses, injuries and illness, workplace safety training, euthanasia and mental health.

8:00	Emerging bacterial zoonoses: How much should we be concerned? Peter Davies
8:30	Injuries and illness in swine workers and veterinarians Bruce Alexander
9:00	Workplace safety: A training tool for the hog barn worker Karen Hoare
9:30	Fun with PPE: Veterinary workplace health and safety training <b>Abbey Canon</b>
10:00	BREAK
10:30	The current impact of influenza A virus on pigs, people, and birds Andrew Bowman
11:00	Timely euthanasia and impacts of euthanasia on caretakers Jan Shearer
11:30	Veterinarians and mental health Stacy Holzbauer
12:00	Seminar concludes

### Diagnostics

Date: Sunday, February 28 Time: 8:00 AM – 12:00 PM Location: Celestin D Fee: \$95 Chair: Kent Schwartz

The science and application of diagnostic testing and agent characterization in the first half of this seminar will highlight strengths and pitfalls to proper selection, interpretation, and application of molecular diagnostic tests. The second portion will feature a 2-hour interactive workshop with multiple group activities to build core competencies in applying diagnostics in evidence-based approaches to population medicine.

8:00	Molecular diagnostic and research tools: Application and limitations Kyoung Jin Yoon
8:30	Influenza: Application of molecular tools for better decisions Marie Culhane
8:55	Molecular characterization of bacteria: Interpretation and applications Albert Rovira
9:20	Oral fluid update Jeff Zimmerman
9:45	BREAK
10:00	Diagnosis: Dissecting diagnostic results to reveal population diagnoses <b>Eric Burrough</b>
10:30	Neonatal diarrhea: The challenges of the "classical approach" Clayton Johnson and Aaron Lower
10:45	Applying an evidence-based approach to defining the problem: Case definition, quizzical triangle, aggregating evidence group activity <b>Clayton Johnson, Jim Lowe, and Aaron Lower</b>
11:30	Understanding the root cause of the clinical presentation: Applying fishbone diagram to a real case as a group activity <b>Clayton Johnson and Jim Lowe</b>
12:00	Seminar concludes

### Tools to Improve Feed Efficiency and Reduce Feed Cost

Date: Sunday, February 28 Time: 8:00 AM – 12:00 PM Location: Celestin C Fee: \$95 Co-chairs: Mike Tokach and John Patience

#### **Co-sponsored by USDA-NIFA**

Attendees will leave with tools and knowledge to improve swine feed efficiency to lower feed cost for swine producers. Diet, health, stress, barn management, and other factors will be addressed. Field research results will share how factors such as DDGS source, particle size, pellet quality, marketing, and sow feeding impact pig growth and feed efficiency.

8:00 Feed and other factors that drive feed efficiency John Patience

Like so many things in pork production, feed efficiency is a multi-factorial outcome. It is influenced by the pig's diet and by barn management. Dietary factors and barn management factors will be discussed, all leading to a summary checklist on improving feed efficiency at a practical level.

8:45 Gut mechanics during stress: How feed efficiency and growth can be influenced Adam Moeser

> To optimize performance of pigs under health challenges, we need to understand how the stressors impact intestinal function. Who better to do that than Dr. Adam Moeser, the world-renowned expert on gut physiology and how it is impacted by stressful events?

9:30 BREAK

#### 10:00 Latest field research on feed efficiency Bob Goodband

Dr. Goodband will highlight numerous field projects with feeding DDGS of different oil levels, particle size, pellet quality, marketing, and sow feeding, and how growth and feed efficiency is impacted.

# **10:45** Tools to help clients evaluate and improve feed efficiency

#### **Mike Tokach**

Tools will be shared and discussed that can be used to help calculate the value of several factors that influence feed efficiency including energy and amino acid levels, particle size, pelleting, pellet quality, feed additives, temperature, stocking density, topping market pigs, etc. We believe these simple tools provide an excellent opportunity to run "what if" scenarios for real-time questions. Tools include a feed efficiency calculator, space calculator, DDGS value calculator, and iodine value calculator.

- 11:30 Roundtable Q&A All speakers
- 12:00 Seminar concludes



#### Swine Medicine for Students

Date: Sunday, February 28 Time: 8:00 AM – 12:00 PM Location: Celestin GH Fee: \$95; No charge for veterinary students or 2014 or 2015 DVM graduates Co-chairs: Angela Supple and Jeremy Pittman

The student pre-conference seminar is designed to provide swine-specific information that students may not receive in their veterinary curriculum. This year we will return to a consistently requested topic that many students feel deficient in upon graduating: medication. Specifically, the seminar will address the ever-changing regulations around use of medications in swine/food animals, and the options on how to calculate water medication for use in populations of pigs. In addition, the ever-popular interactive case(s) will return in this seminar, where small groups of students use the information they learn in the seminar to walk through specific "real-world" cases.

- 8:00 Introduction
- 8:05 The regulatory aspects of swine medicines Locke Karriker
- 9:00 Life of an item: The North American Veterinary Licensing Examination (NAVLE<sup>®</sup>) demystified Karen Lehe
- 9:30 BREAK
- 10:00 Calculations for water medication Angela Supple and Jeremy Pittman
- 10:30 Interactive cases: Water-soluble medication Angela Supple and Jeremy Pittman
- 12:00 Seminar concludes

### **Research Topics**

### **Research Topics**

Date: Sunday, February 28 Time: 8:00 AM – 12:00 PM Location: Celestin F Chair: Chris Rademacher

- 8:00 Comparative analysis of vaccine efficacy of live-attenuated virus, whole-virus inactivated and alphavirus vectored subunit vaccines against antigenically distinct swine influenza A viruses Eugenio Abente
- 8:15 Novel reassortant human-like H3N2 and H3N1 influenza A viruses detected in pigs are virulent and antigenically distinct from endemic viruses Daniela Rajao
- 8:30 Effect of sow vaccination and maternally derived antibodies on IAV infection Fabian Chamba Pardo
- 8:45 Airborne transmission of highly pathogenic avian influenza virus. Is the swine industry ready? Carmen Alonso
- 9:00 Particle size association with PRRS and PED viruses in aerosols from acutely infected pigs under field conditions Carmen Alonso
- 9:15 PCV as delivery virus vector to express PRRSV epitopes Pablo Pineyro
- 9:30 Developing sampling guidelines for oral fluid-based PRRSV surveillance Marisa Rotolo
- 9:45 BREAK

### **Research Topics**

- 10:15 Evaluation of the pathogenesis differences of the US PEDV prototype and S-INDEL-variant strains and examination of the cross-protective immunity of two strains in weaned pigs
   Qi Chen
- 10:30 An evaluation of porcine epidemic diarrhea virus survival in individual feed ingredients in the presence or absence of a liquid antimicrobial Scott Dee
- 10:45 Effect of thermal mitigation of porcine epidemic diarrhea virus (PEDV) contaminated feedRoger Cochrane
- 11:00 PEDV antibody responses in fecal and oral fluid specimens Luis Gimenez-Lirola
- **11:15** Stochastic modeling to determine number of laryngeal swab sample pools and sample collections needed for low *Mycoplasma hyopneumoniae* group prevalences **Cassandra Fitzgerald**
- 11:30 Detection of Actinobacillus pleuropneumoniae ApxIV toxin antibody in serum and oral fluid specimens from pigs inoculated under experimental conditions Wendy Gonzalez
- 11:45 Discovery of a divergent lineage pestivirus in piglets with congenital tremors and reproduction of disease following experimental challenge Bailey Arruda
- 12:00 Session concludes

### **Student Seminar**

Date: Sunday, February 28 Time: 1:00 – 5:15 PM Location: Celestin E Session co-chairs: Alex Ramirez and Maria Pieters

### **Sponsored by ZOETIS**

1:00	The effects of tulathromycin injectable solution on reducing the transmission of swine respiratory pathogens from sows to wean pigs <b>Timothy Pearson, University of Tennessee</b>
1:15	Correlation between aggression and cognitive bias in gestating sows Sindumani Manoharan, University of Pennsylvania
1:30	Evaluation of diagnostic sampling techniques used in the farrowing house to increase sensitivity of detection and sequencing of influenza A virus (IAV-S) in swine <b>Ryan Strobel, University of Minnesota</b>
1:45	Assessing and ranking sow farm biosecurity within a production system <b>Brent Sexton, Iowa State University</b>
2:00	Effect of administering tulathromycin to IAV-S positive weaned pigs to control swine respiratory disease Kathleen Wood, North Carolina State University
2:15	Characterization of shedding and viremia in naive or vaccinated replacement gilts given 1-7-4 RFLP PRRS live virus inoculation <b>Taylor Engle, Virginia-Maryland Regional CVM</b>
2:30	Evaluation of a second iron supplementation and the use of zinc oxide in the prevention of iron- deficient anemia in young pigs <b>Eric Perrin, University of Guelph</b>
2:45	BREAK Sponsored by: HARRISVACCINES

3:15	Viral ecology determined by metagenomic sequencing within multisourced swine markets located in the SE United States Olivia Myers, North Carolina State University
3:30	Effect of herd closure on the pattern of <i>Mycoplasma hyosynoviae</i> and <i>Mycoplasma</i> <i>hyorhinis</i> infection <b>Alyssa Anderson, University of Minnesota</b>
3:45	Vesicles, hoof lesions, and severe lameness in commercial finishing pigs in the United States Scott Radke, Iowa State University
4:00	Evaluation of Salmonella Typhimurium fecal shedding in pigs vaccinated with Salmonella Choleraesuis-Typhimurium vaccine via drinking water and challenged four weeks later Quynn Steichen, Kansas State University
4:15	Evaluation of the effect of shipping and handling of oral fluid samples on detection of influenza A virus in swine by PCR Victoria Foerster, Iowa State University
4:30	Use of topical spray containing lidocaine to mitigate pain in pigs undergoing castration Sara Davenport, University of Pennsylvania
4:45	Residue depletion profile of ampicillin trihydrate in cull sows Christine Mainquist-Whigham, Iowa State University
5:00	Characterization of genomic and pathogenic changes of porcine epidemic diarrhea virus after serial passages in cell culture Holly Salzbrenner, Iowa State University
5:15	Session concludes

### STUDENT RECEPTION

Sponsored by: MERCK ANIMAL HEALTH

Sunday, February 28 8:30 – 11:00 PM Celestin FGH

#### **Industrial Partners**

Date: Sunday, February 28 Time: 1:00 – 4:45 PM Location: Celestin FGH Session chair: Daniel Kovich

- 1:00 Comparison of the detection of PRRSV antibodies from oral fluids using a commercial PRRS oral fluids assay and the modified PRRS X3 overnight protocol Christa Goodell IDEXX
- 1:15 Descriptive study of swine enteric coronavirus disease (SECD) elimination and prevention in a genetic multiplication system in North America Jean Paul Cano PIC
- 1:30 Ambitine<sup>™</sup>: A late finishing intervention
   Dan McManus
   PURINA ANIMAL NUTRITION
- 1:45 Biometrics Intelligent sensors for swine production Guido Klement FANCOM
- 2:00 Xylanase reduces wean to finish mortality; potential mechanisms of action David Nolan HUVEPHARMA
- 2:15 A novel PCV2 qPCR and PCV2 ELISA. Powerful tools to monitor PCVAD Alex Eggen BIOCHEK
- 2:30 Advances in PRRS vaccination strategy: Vaccination schedules alternating MLVs and KVs increase efficiency Francois Joisel MERIAL
- 2:45 BREAK Sponsored by: HARRISVACCINES
- 32

3:15	Improved swine influenza virus A (SIV-A) strain selection method affords cross-protection against heterologous challenge in the face of maternal antibodies Paulraj Lawrence NEWPORT LABORATORIES
3:30	An effective vaccination program. Utilizing a killed PRRSV and <i>Mycoplasma hyopneumoniae</i> vaccine Justin Kuecker NEWPORT LABORATORIES
3:45	The future of swine for research and xenotransplantation is here Rexanne Struve STRUVE LABS INTERNATIONAL
4:00	The use of the Zephyr EXL for the humane euthanasia of neonate swine Andrew Grist BOCK INDUSTRIES
4:15	Safety and efficacy of a porcine circovirus type 2 (PCV2, killed) and <i>Mycoplasma hyopnuemoniae</i> (M hyo, bacterin) vaccine <b>Wei Lu</b> <b>CEVA</b>
4:30	Utilization of commercial female data in maternal genetic improvement programs Douglas Newcom PURETEK GENETICS





#### **Industrial Partners**

Date: Sunday, February 28 Time: 1:00 – 4:45 PM Location: Celestin D Session chair: Megan Inskeep

- 1:00 Porcilis<sup>®</sup> Ileitis: 20-week duration of immunity against *Lawsonia intracellularis* challenge Erin Strait MERCK ANIMAL HEALTH
- 1:15 Estimation of the economic value of the productivity differences following a change in porcine circovirus type 2 and *Mycoplasma hyopneumoniae* vaccines in growing pigs using historical production data Derald Holtkamp MERCK ANIMAL HEALTH
- 1:30 Circumvent® PCV M G2: PCV2d challenge study and field production data update Brad Thacker MERCK ANIMAL HEALTH
- 1:45 Effectiveness of avilamycin (Kavault<sup>™</sup>) for reducing the incidence and severity of colibacillosis in post-weaned pigs Tom Marsteller ELANCO ANIMAL HEALTH
- 2:00 Effectiveness of tilmicosin phosphate (Pulmotil® AC) for controlling respiratory disease associated with *Mycoplasma hyopneumoniae* in swine in the presence of porcine reproductive and respiratory syndrome virus (PRRSV)
   Chris Puls
   ELANCO ANIMAL HEALTH
- 2:15 Genetic strategies to improve piglet quality Caitlyn Abell DNA GENETICS

2:30	Evaluation of efficacy, safety and stability of a novel adjuvant system in conventional and advanced vaccine platform technologies for use with various antigens in swine vaccines <b>Timothy Miller</b> <b>BENCHMARK BIOLABS</b>
2:45	BREAK Sponsored by: HARRISVACCINES
3:15	Establishing Mycoplasma hyopneumoniae herd status criteria for breeding herds Lucina Galina ZOETIS
3:30	Evaluation of Fostera® PRRS cross-protection against a contemporary Linage 1 (RFLP 1-7-4) PRRS virus Jose Angulo ZOETIS
3:45	Comparison of immunological response, shedding profiles, and production performance between Fostera® PRRS and Ingelvac PRRS®MLV in the face of a heterologous PRRSV challenge Scott Dee ZOETIS
4:00	Field evaluation of the intranasal route as an alternative for administering <i>Streptococcus suis</i> and <i>Haemophilus parasuis</i> bacterins <b>Randy Jones</b> <b>MVP LABORATORIES</b>
4:15	Quantitative assessment of prevalence and severity to understand impact of Lactobacillus acidophilus fermentation product (SynGenX <sup>®</sup> ) in a herd with endemic K88 and <i>Salmonella</i> post-wean <b>Sarah Probst Miller</b> <b>DIAMOND V</b>
4:30	New discoveries for injectable fat-soluble vitamins for sows and piglets <b>Rob Stuart</b> <b>STUART PRODUCTS</b>
4:45	Session concludes

#### **Industrial Partners**

Date: Sunday, February 28 Time: 1:00 – 4:30 PM Location: Celestin ABC Session chair: Dwain Guggenbiller

- 1:00 Comparative efficacy evaluation of two modified-live PRRS vaccines Reid Philips BOEHRINGER INGELHEIM VETMEDICA
- 1:15 Evaluation of PRRSV infectious dose in vaccinated pigs Reid Philips BOEHRINGER INGELHEIM VETMEDICA
- 1:30 PCV2 vaccine cross-protection: Identification of isolates in successfully vaccinated field cases Brian Payne BOEHRINGER INGELHEIM VETMEDICA
- 1:45 Innovative polymeric adjuvant for PCV2 vaccination Sophia Bingling Xu SEPPIC
- 2:00 Herd health management solutions the future is now! J. Tyler Holck GLOBALVETLINK
- 2:15 Evaluation of an RNA particle vaccine against porcine epidemic diarrhea in both naïve sows and previously exposed gilts Kimberly Crawford HARRISVACCINES
- 2:30 RNA particle vaccines: Bringing solutions to emerging and rapidly mutating pathogens Channing Sebo HARRISVACCINES
- 2:45 BREAK Sponsored by: HARRISVACCINES

# Sunday Session #4

- Spermatotoxic potential of insemination lubricant 3:15 **Chris Kuster** AURORA PHARMACEUTICAL 3:30 Effect of induction of farrowing following OvuGel<sup>®</sup> and SFTAI on farrowing performance, timing of parturition and piglet survivability Paul Yeske JBS UNITED ANIMAL HEALTH 3:45 New generation live intranasal PRRSV vaccine Federico Zuckermann **APTIMMUNE BIOLOGICS** 4:00 A novel approach to classifying porcine reproductive and respiratory syndrome virus - MJ PRRS<sup>®</sup> Grouping Technology **Keith Kinslev** 
  - PHIBRO ANIMAL HEALTH CORPORATION
- 4:15 Experimental infection of US swine with China origin PRV (HeN1 variant) Sabrina Swenson NATIONAL VETERINARY SERVICES LABORATORY
- 4:30 Session concludes



Sponsored by: ZOETIS

Sunday, February 28 6:30-8:30 PM

Empire A (level 2)

#### Veterinary Student Posters (#1 – #39)

Location: Storyville Sunday, February 28 12:00 – 5:00 PM Authors present from 12:00 – 1:00 PM Monday, February 29 9:00 AM – 5:00 PM

#### Sponsored by ZOETIS

Posters #1-15 have been selected for judging in the Student Poster Competition, with scholarship awards sponsored by **NEWPORT LABORATORIES** 

- Identification of *Mycoplasma hyopneumoniae* shedding gilts in the field
   Chris Deegan, University of Minnesota
- Risk assessment for the introduction of African swine fever virus (ASFV) into the United States Jessica Rotschafer, University of Minnesota
- Comparing biopsy instruments and techniques for antemortem joint tissue collection
   Emily Mahan-Riggs, North Carolina State University
- Serum inoculation of a finishing swine operation to aid the elimination of porcine reproductive and respiratory syndrome: A case study
   Ryan Tenbergen, University of Guelph
- Differentiation of *Pasteurella multocida* field strains isolated from growing-finishing pigs that died of bronchopneumonia using PCR-RFLP analysis of the *omph* gene
   Kara Telfer, Iowa State University
- Cognitive bias testing of commercial and heritage-breed gilts
   Jessica Piergiovanni, University of Pennsylvania
- Determining the effects of pooling placenta umbilical cord serum (PUCS) on polymerase chain reaction (PCR) sensitivity
   Donna Drebes, University of Minnesota

#### **Veterinary Student Posters**

- Evaluating the use of the EnviroBootie<sup>™</sup> to detect Salmonella at five breed-to-wean sites
   Kayla Blake, Auburn University
- Case study: Investigation of porcine reproductive and respiratory syndrome postive PCR results from a gilt development unit with a negative status Nicole Thomas, University of Illinois
- Effect of antimicrobial administration on the microbiome of the pig Katharine Kancer, University of Illinois
- Effect of pre-farrow ceftiofur sodium administration on *Streptococcus suis* colonization of peri-parturient females and their litters
   Daniel Gascho, Purdue University
- Determining the prevalence of *Mycoplasma hyopneumoniae* colonization of weaned piglets from gilt litters
   Thomas Wurtz, Washington State University
- Evaluation of diagnostic tests for Circumvent PCVM G2 compliance monitoring
   T'Lee Girard, Iowa State University
- Management practices implemented following an outbreak of porcine reproductive and respiratory syndrome in commercial swine breeding herds in North America
   Kathryn Duda, University of Illinois
- Determining effects of transport factors on transport loss in a commercial production system Megan Pieters, Iowa State University
- Use of oral fluids and fecal samples in sow herds for detection of *Erysipelothrix rhusiopathiae* by polymerase chain reaction (PCR)
   Claire Behnke, University of Illinois
- Effect of injectable fat-soluble vitamins pre-farrow on piglet number born alive
   Daniel Carreño, North Carolina State University

Continued on next page

#### **Veterinary Student Posters**

- The effect of sampling strategy on porcine epidemic diarrhea virus (PEDV) associated gut morphology and immunohistochemistry scores
   Jessica Davenport, University of Georgia
- The effect of multi-dose iron dextran and vitamin E administration on hemoglobin concentration and weight gain in neonatal pigs
   Scott Foster, University of Georgia
- Impact of grain particle size reduction technologies on pig performance and economics
   Jordan Gebhardt, Kansas State University
- Salmonella enterica: A case study of enterocolitis in Oklahoma and Iowa swineherds
   Kylie Glisson, North Carolina State University
- 22. Evaluation of iron injection protocols in piglets and their effect on wean weights and hemoglobin levels Tiffany Haegele, North Carolina State University
- 23. Improved influenza A virus isolation using non-woven fabric for nasal wipe collection Christie Hammons, The Ohio State University
- Determination of a maternal antibody decay curve for influenza A virus in swine Henry Johnson, University of Illinois
- Sow lameness scoring: Reliability and correlations with other indicators of lameness
   Jane Karpowicz, University of Pennsylvania
- 26. Porcine epidemic diarrhea: The value of repeat testing Kaushalya (Kash) Kuruppu, University of Guelph
- 27. See one, do one, teach one: Increasing swine disease response and diagnostic capacity by using a pyramidbased training technique to get boots on the ground Nicholas Lauterbach, Iowa State University
- The effects of different vaccination dosing and timing protocols on porcine circovirus type 2 viremia and post vaccination serologic responses
   Claire LeFevre, University of Wisconsin

#### **Veterinary Student Posters**

- Salmonella shedding in nursery pigs fed with a high or low complexity diet
   Jane Newman, University of Guelph
- A comparison of NP ELISA and HI tests identifying influenza A virus maternal antibody levels in processing-aged piglets
   Mary O'Loughlin, Iowa State University
- Comparison of macro-gut health parameters in PEDv positive and negative pigs
   Chelsea Ruston, Iowa State University
- Incidence of porcine coronavirus and porcine rotavirus in an Indiana swine operation following clinical onset of acute diarrhea Cody Schnur, Purdue University
- 33. Do sows and gilts previously infected with PEDV respond to PEDV vaccination?Blake Setness, Iowa State University
- 34. Development of a snatch-farrowed, colostrum-deprived piglet challenge model for porcine rotavirus C
   Brooke Smith (Murphy), University of Illinois
- 35. Disease surveillance in an all natural system Chelsea Stewart, Iowa State University
- Comparison of sample types for assessing porcine circovirus type 2 status of sow herds
   Corrine Stoffel, University of Illinois
- The interaction between swine heath and low crude protein, amino acid supplemented diets
   Caitlin Vonderohe, Purdue University
- Patterns of resting position in group-housed, gestating sows
   Hanum Wensil-Strow, University of Pennsylvania
- Conditions for development of cross-neutralizing antibodies to porcine reproductive and respiratory syndrome virus
   Jordan Young, University of Minnesota

#### Research Topics Posters (#40 - #64)

Location: Storyville Sunday, February 28 12:00 – 5:00 PM Authors present from 12:00 to 1:00 PM Monday, February 29 9:00 AM – 5:00 PM

- 40. Financial impact of endemic and epidemic pathogens in growing pigs
   Julio Alvarez Sanchez
- Description and use of network data to inform disease control and prevention strategies
   Andréia Arruda
- 42. Biotherapeutics as alternatives to antibiotics: Effects of adenoviral delivered IFN-α and G-CSF on innate and adaptive immunity in swine
   Susan Brockmeier
- 43. An emerging H1N2 sub-cluster within the alpha H1 cluster of influenza A viruses of swine Susan Detmer
- 44. The effect of agitation and dose position during storage on semen qualityHanneke Feitsma
- **45.** Dynamics of influenza virus transmission in a swine herd and analysis of risk factors for recurrent infections **Juliana Bonin Ferreira**
- 46. Evaluation of the risk of a feed mill being contaminated with PEDV or PDCoVLaura Greiner
- 47. Assessment of the immunocrit ratio assay for evaluation of colostrum quality in sows induced to farrow and inseminated using single-dose fixed time insemination
   Andrea Hanson

#### **Research Topics Posters**

- 48. Absence of human innate immune evasion complex in LA-MRSA ST5 strains isolated from pigs, swine facilities, and humans with swine contact Samantha Hau
- 49. PEDV shedding patterns and antibody kinetics in commercial growing pigs
   Jordan Kraft
- Dietary iron concentration affects intestinal permeability and inflammation in pigs Yihang Li
- Routine manure removal from swine operations: A potential mechanism for pathogen dispersion Melissa Millerick-May
- 52. Association of growth performance with clinical signs following co-infection with porcine reproductive and respiratory syndrome virus (PRRSV) and porcine circovirus type 2 (PCV2) in nursery pigs Megan Niederwerder
- 53. Early weaning induces long-lasting effects on gastrointestinal health and susceptibility to subsequent stressors in grower and finisher pigs
   Calvin Pohl
- 54. Does circulating antibody affect the course of PEDV infection in neonatal piglets?Korakrit Poonsuk
- Investigating the seeder-to-naïve ratio for successful exposure of gilts to *Mycoplasma hyopneumoniae* Luiza Roos
- 56. Lactogenic protection against porcine epidemic diarrhea virus in piglets following homologous challenge
   Adam Schelkopf

#### **Research Topics Posters**

- 57. A stochastic, mathematical model of influenza A virus within swine breeding herds: Implications of possible management interventions Montserrat Torremorell
- 58. PRRS aerobiology: Experimental evidence and 10 years of field experiences with 119 filtered breeding farms in the United States
   Steven Tousignant
- 59. Porcine reproductive and respiratory syndrome virus and porcine epidemic diarrhea virus infection patterns and risk factors in sow farms in the United States Steven Tousignant
- Measuring progress on the control of porcine reproductive and respiratory syndrome (PRRS) at a regional level: The Minnesota N212 regional control project (RCP) as a working example Pablo Valdes-Donoso
- 61. Reduction of antibiotic use to treat post-weaning diarrhea following oral vaccination with *Escherichia coli* F4: Case report
   Frederic Vangroenweghe
- 62. Effect of azaperone administration after farrowing on maternally derived immunoglobulin level in suckling piglets using the Immunocrit<sup>®</sup> method Frederic Vangroenweghe
- Detection of classical swine fever virus (CSFV) using serum-based assays
   Jeff Zimmerman
- 64. Detection of classical swine fever virus (CSFV) in oral fluid samples by RT-PCRJeff Zimmerman

Industrial Partners Posters (#63 - #72) Location: Storyville Sunday, February 28 12:00 - 5:00 PM Authors present from 12:00 to 1:00 PM Monday, February 29 9:00 AM - 5:00 PM

- 65. BioChek software, a novel link between sample submission and laboratory results with 24/7 access
   Alex Eggen
   BIOCHEK
- 66. Multiplex testing for PRRSV, SIV, PCV2, and APP antibodies using multiplexing fluorometric immuno assays (MFIA)
   Andres Broes
   BIOVET
- 67. Observations of a commercially licensed trivalent PRDC vaccine for PCV2, M hyo, and PRRS
   Brian Payne
   BOEHRINGER INGELHEIM VETMEDICA
- 68. Birth weight impact on survivability and days to marketJan JourquinELANCO ANIMAL HEALTH
- 69. The use of antibody monitoring for endemic diseases in two commercial sow farm on-site GDUs and a barn of high-health commercial pigs: Field study
   Christa Goodell
   IDEXX
- 70. Improving sow farm profitability by reducing unnecessary culling and non-productive days and improving reproductive management using advanced technologies
   Christine Pelland
   MERCK ANIMAL HEALTH

#### **Industrial Partners Posters**

- 71. Determining viability of porcine mycoplasmal pure cultures using a redox indicator
   Boh Chang Lin
   MVP LABORATORIES
- 72. A combination vaccine strategy. Improving ADG from weaning to finish
   Paul Lawrence
   NEWPORT LABORATORIES
- 73. Flexible adjuvants for combined live Aujesky's disease and inactivated swine influenza vaccines
   Sophia Bingling Xu
   SEPPIC
- 74. The prospects of selection for social genetic effects to improve welfare and productivity in pigs
   John Eggert
   TOPIGS NORSVIN INTERNATIONAL
- 75. Nutritional requirements of immunologically castrated (IC) barrows
   Daniel Nelson
   ZOETIS



### **Technical Tables**

# A marketplace for the swine veterinarian



With more than 80 companies and organizations participating (see page 8), the Technical Tables Exhibit offers the perfect opportunity to learn about the products and services available to you and your clients.

> EXHIBITS OPEN Monday, February 29 9:00 AM – 5:00 PM

Tuesday, March 1 8:00 AM – 12:00 PM

> LOCATION Storyville

All refreshment breaks on Monday and Tuesday will take place in Storyville. Take some time to visit with our exhibitors and thank them for supporting the AASV Annual Meeting!



Monday, February 29 7:00 – 9:00 AM Strand 8 (level 2)

The AASV is pleased to host the spouse hospitality suite at the Hyatt Regency New Orleans. Spouses of meeting attendees are invited to enjoy complimentary pastries, juice, and coffee. Make new acquaintances, visit with old friends, and plan the rest of your day with other AASV spouses and family members.

# **AASV Foundation RAFFLE**

WOW! This year, MVP Laboratories is once again donating the raffle grand prize, valued at \$25,000. What is it? Take a look at **http://ecom.aasv.org/raffle** and see for yourself! While you're there, scroll down the page and purchase your chance to win this incredible prize!

Tickets are \$100 each, and can also be purchased from one of the Auction Committee members, or at the AASV registration desk.

The winning raffle ticket will be drawn and announced during the Foundation Auction on Monday night, February 29. The winner does not need to be present to win – so ALL AASV members can participate, knowing they have a chance to win and support the AASV Foundation at the same time.

Thanks to MVP Laboratories, the AASV Foundation is a winner with every ticket purchased!



# **AASV Foundation Auction**

Monday, February 29 Celestin



# What better place than New Orleans to support the AASV Foundation?

The "Big Easy" maintains the image of relaxation and slow, easy-going ways to unwind and live on the fun side of life. Likewise, the AASV Foundation Auction Committee invites you to relax, enjoy some jazz, and be generous while you invest in the future of the swine veterinary profession. Our success depends on you!

Look over the auction catalog or go to **aasv.org/ foundation** to see the items up for bid. Since everything's been donated, the full amount of your bid will support AASV Foundation programs, including swine research, scholarships, swine externship grants, annual meeting travel stipends for students, heritage videos, and more!

#### **Silent Auction**

Bid on the silent auction items on Monday, February 29. The bidding will close Monday evening, and we'll announce the names of the winning bidders at the AASV Awards Reception.

#### **Live Auction**

The Live Auction will be held at the conclusion of the AASV Awards Reception Monday evening.

#### aasv.org/foundation

# **Monday General Session**

#### Standing on the Shoulders of Giants: Collaboration and Teamwork

Date: Monday, February 29 Time: 8:00 AM – 12:30 PM Location: Celestin ABCD Program chair: George Charbonneau

- 8:00 Howard Dunne Memorial Lecture Emergence of *Brachyspira hampsonii* in western Canada: A collaborative success John Harding
- 9:00 Alex Hogg Memorial Lecture Whose shoulders are we standing on? Peggy Anne Hawkins
- 10:00 BREAK Co-sponsored by: HOG SLAT
- 10:30 Neonatal immunology and vaccinology: Timing is everything Dick Hesse
- 11:00 Fair Oaks Pig Adventure: Public perception of what we do Megan Inskeep
- 11:30 On-farm welfare audits: Preparing your clients Chris Rademacher
- 12:00 It's about us, not me! Communication, cooperation, coordination and collaboration Dale Polson
- 12:30 LUNCHEON

### AASV LUNCHEON

Sponsored by: BOEHRINGER INGELHEIM VETMEDICA, INC

> Monday, February 29 12:30 – 2:00 РМ

> > Celestin EFGH

# Monday Session #1

#### **Swine Enteric Coronaviruses**

Date: Monday, February 29 Time: 2:00 – 5:30 PM Location: Celestin ABC Session chair: Chris Rademacher

- 2:00 Review of PEDV disinfectant research Derald Holtkamp
- 2:25 PEDV in feed Steve Dritz
- 2:50 PEDV prevalence Bob Morrison
- 3:15 BREAK Sponsored by: CEVA ANIMAL HEALTH
- 3:45 PEDV outbreak management Sara Hough
- 4:10 PEDV gilt acclimatization Pete Thomas

#### 4:35 PEDV vaccination Trevor Schwartz

- 5:00 Panel discussion Paul Yeske, Pete Thomas, Sara Hough and Joe Connor
- 5:30 Session concludes

### **AASV AWARDS RECEPTION**



Sponsored by: ELANCO ANIMAL HEALTH

Monday, February 29 6:30 – 8:30 РМ

Celestin EFGH

# Monday Session #2

#### PRRS, Mycoplasma, and Influenza

Date: Monday, February 29 Time: 2:00 – 5:30 PM Location: Celestin D Session chair: Mark Engle

	Bob Morrison
	Monitoring Project
2:00	PRRS epidemiology: Data from the Swine Health

- 2:25 PRRSV: emerging isolates Chad Smith
- 2:50 Mycoplasma hyopneumoniae elimination Paul Yeske
- 3:15 Gilt acclimation options for *Mycoplasma hyopneumoniae* infected breeding herds Matthew Turner
- 3:40 BREAK Sponsored by: CEVA ANIMAL HEALTH
- 4:10 Mycoplasma hyosynoviae: Sample collection and findings from diagnostic case review Paisley Canning
- 4:35 Interspecies movement of influenza A viruses Marie Culhane
- 5:00 Considerations for vaccines against influenza A virus Amy Vincent
- 5:30 Session concludes



# Monday Session #3

#### Antibiotic Use: 2017 and Beyond

Date: Monday, February 29 Time: 2:00 – 5:30 PM Location: Imperial 5 (level 4) Session chair: Sam Holst

2:00	Current status of GFI 213 and VFD rule Jennifer Koeman
2:20	Implementing the VFD rule: Feed company perspective <b>Ronny Moser</b>
2:40	Implementing the VFD rule: Practitioner perspective <b>Paul Ruen</b>
3:00	Pork production without antibiotics Jessica Risser
3:20	BREAK Sponsored by: <b>CEVA ANIMAL HEALTH</b>
3:50	Antibiotic use in practice Laura Bruner
4:10	Treatment decision trees Locke Karriker
4:30	Considerations for preserving antibiotic use <b>Mike Apley</b>
4:50	Roundtable Q&A All speakers

5:30 Session concludes



### AASV FOUNDATION AUCTION

Monday, February 29 Celestin

Silent Auction: Bidding starts at noon Live Auction: Immediately following the AASV Awards Reception

# **Tuesday General Session**

#### **Emerging Disease Response**

Date: Tuesday, March 1 Time: 8:00 AM – 12:00 PM Location: Celestin ABCD Session chair: George Charbonneau

- 8:00 Emerging disease response: Global roadmap but local drivers Corrie Brown
- 8:30 Modeling the transboundary risk of PEDV: Introduction of the virus to the US from China via contaminated feed ingredients in the presence or absence of treatment Scott Dee
- 9:00 The next one! A Canadian vision for emerging disease preparedness Doug MacDougald
- 9:30 Swine Health Information Center (SHIC): Enhancing our preparedness Paul Sundberg
- 10:00 BREAK
- 10:30 Lessons learned from highly pathogenic avian influenza (HPAI) Craig Rowles
- 11:00 Keep your feet on the ground but stick your head in the "cloud" Rodger Main
- 11:30 Roundtable Q&A All speakers
- 12:00 Session concludes



### AASV BUSINESS BREAKFAST

Tuesday, March 1 7:00 – 8:00 AM

Celestin FGH

**Caitlyn Abell Eugenio Abente Bruce Alexander** Carmen Alonso Julio Alvarez Sanchez Alyssa Anderson Jose Angulo Mike Apley Andréia Arruda Bailev Arruda Natalie Baker Kent Bang **Claire Behnke** Kayla Blake **Dave Bomgaars** Andrew Bowman Egan Brockhoff Susan Brockmeier Andres Broes **Corrie Brown** Shamus Brown **Mike Brumm** Laura Bruner **Eric Burrough** Whitney Burton **Paisley Canning** Jean Paul Cano Abbev Canon Daniel Carreño Fabian Chamba Pardo Qi Chen **Roger Cochrane** Joe Connor **Kimberly Crawford** Marie Culhane Jessica Davenport Sara Davenport Peter Davies Scott Dee Chris Deegan Susan Detmer Donna Drebes Steve Dritz Kathryn Duda

Columbus, NE Ames, IA Minneapolis, MN St Paul, MN St Paul, MN St Paul, MN St Joseph, MO Manhattan, KS Guelph, ON Ames, IA Boonville, IN Omaha, NE Urbana, IL Auburn, AL Orange City, IA Columbus, OH Red Deer, AB Ames, IA Saint-Hyacinthe, QC Athens, GA Indianola, IA North Mankato, MN Belle Plaine, MN Ames, IA Tarboro, NC Ames, IA Hendersonville, TN Ames, IA Raleigh, NC St Paul, MN Ames, IA Manhattan, KS Carthage, IL Ames, IA St Paul, MN Athens, GA Philadelphia, PA St Paul, MN Pipestone, MN St Paul, MN Saskatoon, SK St Paul, MN Manhattan, KS Urbana, IL 55

Alex Eggen John Eggert Al Eidson **Taylor Engle** Hanneke Feitsma Lori Feldmann Juliana Bonin Ferreira Cassandra Fitzgerald **Billy Flowers** Victoria Foerster Scott Foster Lucina Galina Daniel Gascho Jordan Gebhardt Kim Gerardy Luis Gimenez-Lirola T'Lee Girard **Kylie Glisson** Wendy Gonzalez **Bob Goodband** Christa Goodell Laura Greiner Andrew Grist **Tiffany Haegele Christie Hammons** Andrea Hanson John Harding Samantha Hau **Peggy Anne Hawkins Daniel Hendrickson Dick Hesse Christine Hoang** Karen Hoare Jason Hocker J. Tyler Holck **Bill Hollis Derald Holtkamp** Stacy Holzbauer Sara Hough Megan Inskeep **Clayton Johnson** Henry Johnson Francois Joisel **Randy Jones** 

Scarborough, ME Burnsville, MN Leawood, KS Blacksburg, VA Northfield, MN Mapleton, MN Guelph, ON Ames, IA Raleigh, NC Ruthven, IA Athens, GA Florham Park, NJ West Lafayette, IN Manhattan, KS Ames, IA Ames, IA Ames, IA Raleigh, NC Ames, IA Manhattan, KS Westbrook, ME Carthage, IL Philipsburg, PA Raleigh, NC Columbus, OH St Peter, MN Saskatoon, SK Ames, IA Northfield, MN Farmland, IN Manhattan, KS Schaumburg, IL Clive, IA Audubon, IA Gilbert, IA Carthage, IL Ames, IA St Paul, MN Clinton, NC Rensselaer, IN Carlyle, IL Urbana, IL FRANCE Kinston, NC

Jan Jourguin **Katharine Kancer** Jane Karpowicz Locke Karriker **Keith Kinsley** Guido Klement James Kober Jennifer Koeman Dan Kovich Jordan Kraft Justin Kuecker Kaushalya Kuruppu **Chris Kuster Fiona Lang** Nicholas Lauterbach Paulrai Lawrence Claire LeFevre Karen Lehe Yihang LI Yuzhi Li **Boh Chang Lin** Jim Lowe Aaron Lower Wei Lu Doug MacDougald **Emily Mahan-Riggs Rodger Main** Christine Mainquist-Whigham Sindumani Manoharan Tom Marsteller Dan McManus **Timothy Miller** Melissa Millerick-May Adam Moeser **Bob Morrison Ronny Moser** Chris Mowrer **Olivia Myers Daniel Nelson Douglas Newcom** Jane Newman Megan Niederwerder **David Nolan** Mary O'Loughlin

BELGIUM Urbana, IL Philadelphia, PA Ames. IA Sioux Falls, SD GERMANY Holland, MI Blaine, WA Washington, DC Ames, IA Algona, IA Scarborough, ON Geneseo, IL MEXICO Ames, IA Worthington, MN Luxemburg, WI Brookston, IN East Lansing, MI Morris, MN Omaha, NE Albers, IL White Heath, IL **Overland Park, KS** Stratford, ON Angier, NC Ames, IA Ames, IA Bensalem, PA Carmel, IN Dakota Dunes, SD Lincoln, NE East Lansing, MI East Lansing, MI St Paul, MN Sheridan, IN Ames, IA Raleigh, NC Howard Lake, MN West Lafayette, IN London, ON Manhattan, KS Sedgwick, KS Ames, IA 57

Monique Pairis-Garcia Tom Parsons John Patience Jennifer Patterson **Brian Payne Timothy Pearson** Eric Perrin **Christine Pelland Reid Philips Meghann Pierdon** Jessica Piergiovanni **Megan Pieters** Pablo Pineyro Jeremy Pittman Calvin Pohl **Dale Polson Korakrit Poonsuk Barbara Porter-Spalding** Sarah Probst Miller Chris Puls Chris Rademacher Scott Radke Daniela Rajao Chris Richards Jessica Risser Luiza Roos Jim Roth Marisa Rotolo Jessica Rotschafer Albert Rovira **Craig Rowles** Paul Ruen Chelsea Ruston Holly Salzbrenner Adam Schelkopf Cody Schnur Megan Schnur Trevor Schwartz **Channing Sebo Blake Setness Brent Sexton** Jan Shearer **Brooke Smith Chad Smith** 58

Colulmbus, OH Kennett Square, PA Ames, IA Edmonton, AB St Joseph, MO Murfreesboro, TN Guelph, ON St Clements, ON St Joseph, MO Kennett Square, PA Philadelphia, PA Ames, IA Ames, IA Waverly, VA East Lansing, MI Ankeny, IA Ames, IA Raleigh, NC Monticello, IL Greenfield, IN Ames, IA Ames, IA Ames, IA **AUSTRALIA** Middletown, PA St Paul, MN Ames, IA Ames, IA White Bear Lake, MN St Paul, MN Johnston, IA Fairmont, MN Ames, IA Ames, IA Pipestone, MN West Lafavette, IN Carthage, IL Rockwell City, IA Ames, IA Ames, IA Ames, IA Ames, IA Champaign, IL Goldsboro, NC

John Sonderman **Quynn Steichen Chelsea Stewart** Corrine Stoffel Erin Strait **Mike Strobel Rvan Strobel Rexanne Struve** Rob Stuart Paul Sundberg Angela Supple Sabrina Swenson Kara Telfer **Rvan Tenbergen Brad Thacker** Nicole Thomas Peter Thomas **Bob Thompson** Jimmy Tickel Lisa Tokach Mike Tokach Montserrat Torremorell **Steven Tousignant Rick Tubbs** Matthew Turner Pat Turner Pablo Valdes-Donoso Frederic Vangroenweghe **Amy Vincent Caitlin Vonderohe** Liz Wagstrom Hanum Wensil-Strow Kathleen Wood Thomas Wurtz Sophia Bingling Xu Paul Yeske **Kyoung Jin Yoon** Jordan Young Jeff Zimmerman Federico Zuckermann

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## Saturday, February 27

#### 7:00 AM

**Registration Desk open** Location: Celestin Foyer

Committee Meetings Location: Strand (level 2)

#### 7:30 AM

PRRS Risk Assessment Training (page 10) Location: Strand 10A (level 2)

#### 8:00 AM

**ABVP Entrance Examination** Location: Reliance 2 (level 4)

**ABVP Oral Examination** Location: Reliance 3 (level 4)

#### 1:00 PM

#### SEMINARS

**#1 AASV's Got Talent** (page 12) Location: Celestin D

**#2 Pharmaceutical Hot Topics** (page 14) Location: Celestin B

**#3 Current Issues in Swine Reproduction** (page 16) Location: Celestin C

**#4 Swine Welfare** (page 17) Location: Celestin A

**#5 Operation Main Street Training** (page 19) Location: Strand 11A & B (level 2)

#### 5:30 PM

#### **OPEN EVENING**

There is no reception scheduled for Saturday evening. Enjoy New Orleans!

#### 7:00 PM

#### STUDENT TRIVIA EVENT Sponsored by: MERCK ANIMAL HEALTH Location: The Rampart Room, located above Walk On's Bistreaux and Bar (off-site)

### Sunday, February 28

#### 6:30 AM

AASV Student Breakfast Location: Strand 13 A & B (level 2)

#### 7:00 AM

**PRAISE BREAKFAST** (page 21) Sponsored by: **STUART PRODUCTS** Location: Imperial 5 (level 4)

**Registration Desk open** Location: Celestin Foyer

#### 8:00 AM

**Canadian Swine Veterinarians** Location: Strand 10 A (level 2)

#### **SEMINARS**

**#6 Blisters and Quarantines, No Exports – Oh, My!** (page 22) Location: Celestin A

**#7 Zoonoses, Workplace Safety, and Mental Health: The Confluence of Pigs and People** (page 23) Location: Celestin B

**#8 Diagnostics** (page 24) Location: Celestin D

**#9 Tools to Improve Feed Efficiency and Reduce Feed Cost** (page 25) Location: Celestin C

**#10 Swine Medicine for Students** (page 27) Location: Celestin GH

**RESEARCH TOPICS** (page 28) Location: Celestin F



## Sunday, February 28

#### 12:00 РМ

**POSTER SESSION OPEN** Authors in attendance: 12:00 – 1:00 PM Location: Storyville

Veterinary Student Posters (page 38) Sponsored by ZOETIS

Research Topics Posters (page 42)

Industrial Partners Posters (page 45)

AASV FOUNDATION LUNCHEON (Advance registration required) Location: Strand 11A & B (level 2)

#### 1:00 PM

**CONCURRENT SESSIONS** 

**#1 Student Seminar** (page 30) Sponsored by ZOETIS Location: Celestin E

**#2 Industrial Partners** (page 32) Location: Celestin FGH

**#3 Industrial Partners** (page 34) Location: Celestin D

**#4 Industrial Partners** (page 36) Location: Celestin ABC

#### 6:30 рм – 8:30 рм

WELCOME RECEPTION Sponsored by ZOETIS Location: Empire A (level 2)

#### 8:30 PM - 11:00 PM

STUDENT RECEPTION Sponsored by MERCK ANIMAL HEALTH Location: Celestin FGH

### Monday, February 29

#### 7:00 AM

**Registration Desk open** Location: Celestin Foyer

Spouse Hospitality Suite open (page 48) Location: Strand 8 (level 2)

#### 8:00 AM - 12:30 PM

**GENERAL SESSION: Standing on the Shoulders of Giants: Collaboration and Teamwork** (page 50) Location: Celestin ABCD

**Howard Dunne Memorial Lecture:** Dr. John Harding "Emergence of *Brachyspira hampsonii* in western Canada: A collaborative success"

Alex Hogg Memorial Lecture: Dr. Peggy Anne Hawkins "Whose shoulders are we standing on?"

#### 9:00 AM - 5:00 PM

**COMMERCIAL TECHNICAL TABLES** (page 8) Location: Storyville

#### 12:30 PM

#### LUNCHEON

Sponsored by **BOEHRINGER INGELHEIM VETMEDICA INC.** Location: Celestin EFGH

#### 2:00 – 5:30 PM

**CONCURRENT SESSIONS** 

**#1 Swine Enteric Coronaviruses** (page 51) Location: Celestin ABC

**#2 PRRS, Mycoplasma, and Influenza** (page 52) Location: Celestin D

**#3 Antibiotic Use: 2017 and Beyond** (page 53) Location: Imperial 5 (level 4)

#### 6:30 рм – 8:30 рм

AASV AWARDS RECEPTION Sponsored by ELANCO ANIMAL HEALTH Location: Celestin EFGH

AASV FOUNDATION AUCTION (page 49) Celestin EFGH

### Tuesday, March 1

#### 7:00 AM

**Registration Desk open** Location: Celestin Foyer

BREAKFAST and AASV ANNUAL BUSINESS MEETING Location: Celestin FGH

8:00 AM – 12:00 PM GENERAL SESSION: Emerging Disease Response (page 54) Location: Celestin ABCD

8:00 AM – 12:00 PM COMMERCIAL TECHNICAL TABLES (page 8) Location: Storyville

12:00 PM MEETING CONCLUDES

Thank you!

Thank you to ALL of the companies, organizations, and members who support the AASV in so many ways throughout the year!

> The contributions of time, money, and resources are vital to the AASV's efforts to provide high quality educational programming at a reasonable cost to AASV members.





Plan now to attend the AASV 48<sup>TH</sup> Annual Meeting February 25 - 28, 2017

# Hyatt Regency Denver DENVER, COLORADO



2018 San Diego March 3 - 6 2019 Orlando March 9-12 AASV's 50<sup>th</sup> Anniversary!



We extend our sincere appreciation to the following sponsors of AASV annual meeting activities:

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#### **NEWPORT LABORATORIES**

Veterinary Student Travel Stipends Veterinary Student Poster Awards

> STUART PRODUCTS Praise Breakfast

#### ZOETIS

Welcome Reception AASV Student Seminar and Student Poster Session AASV Foundation Veterinary Student Scholarship