

| SCIENTIFIC PROGRAM                        |                                    |
|---|------------------------------------|
| Monday, August 2nd - Morning Registration |                                    |
| 08:00-09:00                               | Registration and Welcome Breakfast |
| 09:00-10:00                               | Registration and Welcome Breakfast |
| 10:00-11:00                               | Registration and Welcome Breakfast |
| 11:00-12:00                               | Registration and Welcome Breakfast |
| 12:00-13:00                               | Registration and Welcome Breakfast |
| 13:00-14:00                               | Registration and Welcome Breakfast |
| 14:00-15:00                               | Registration and Welcome Breakfast |
| 15:00-16:00                               | Registration and Welcome Breakfast |
| 16:00-17:00                               | Registration and Welcome Breakfast |
| 17:00-18:00                               | Registration and Welcome Breakfast |
| 18:00-19:00                               | Registration and Welcome Breakfast |
| 19:00-20:00                               | Registration and Welcome Breakfast |
| 20:00-21:00                               | Registration and Welcome Breakfast |
| 21:00-22:00                               | Registration and Welcome Breakfast |
| 22:00-23:00                               | Registration and Welcome Breakfast |
| 23:00-24:00                               | Registration and Welcome Breakfast |

○ AUGUST 1-4 | ○ 2010

- ▶ AAAP Symposium Animal Welfare: Reality, Perception & Thinking Outside the Box
- ▶ AAAP Scientific Program includes 116 oral presentations and 100 poster presentations

# AAAP

## *Symposium & Scientific Program*

THE AMERICAN ASSOCIATION OF AVIAN PATHOLOGISTS



Atlanta, GA  
August 1-4, 2010

### AAAP Vision

The American Association of Avian Pathologists strives to prevent and eliminate the suffering and loss of poultry due to disease, to assure a safe poultry-associated food supply and to develop and use cutting edge, science-based techniques to meet these goals through education of current and future scientists.



**Please Thank our 2010 AAAP Program Sponsors**

**Diamond (\$10,000 or greater)**

Merial Avian Global Enterprise  
Pfizer Poultry Health

**Platinum (\$5,000 to \$9,999)**

Charles River Spafas

**Gold (\$1,000 to \$4,999)**

Alpharma  
Aviagen Inc. & Nicholas Turkey  
Cobb-Vantress  
Danisco Animal Nutrition  
Elanco Animal Health  
IDEXX  
Poultry Diagnostic & Research Center, UGA  
US Poultry and Egg Association

**Silver (\$500 to \$999)**

Assoc. of Veterinarians in Egg Production  
Bayer  
Cutler Associates International  
Hy-Vac  
Hubbard  
Keystone Foods LLC  
Kemin Agrifoods North America  
National Chicken Council  
Sanderson Farms  
Sunrise Farms  
Wayne Poultry

**Bronze (Up to \$499)**

Canadian Poultry Consultants Ltd.  
Mountaire Farms

**2009-2010 AAAP  
Board of Directors**

**Jagdev Sharma**  
President 2011

**Stewart Ritchie**  
President-Elect 2012

**Charles Hofacre**  
Secretary-Treasurer

**Daniel Bautista**  
Director - Northeast 2013

**Hector Cervantes**  
Director - South 2010

**Kenton Kreager**  
Director - Central 2011

**Mark Bland**  
Director - Western 2012

**Susan Williams**  
Director-at-Large 2011

**Kate Barger**  
Director-at-Large 2010

**Bruce Stewart-Brown**  
Past President 2010

The American Association of Avian Pathologists (AAAP) assures prevention and elimination of suffering and loss of poultry due to disease and the provision of a safe poultry-associated food supply through providing an open exchange of scientific and practical information. Veterinary and non-veterinary researchers, public, private and industry veterinarians, technicians, poultry company owners, industries supporting poultry production representatives, and flock managers are provided cutting edge science concerning the diagnosis, treatment and prevention of poultry disease as well as food safety and animal welfare through national and regional scientific meetings, text books, manuals, and pamphlets developed and authored by the AAAP membership. It is through this effort that the AAAP has received and continues to seek global recognition for this expertise.

Founded in 1957, The American Association of Avian Pathologist is a not-for-profit 501c(6) organization that is allied with the American Veterinary Medical Association

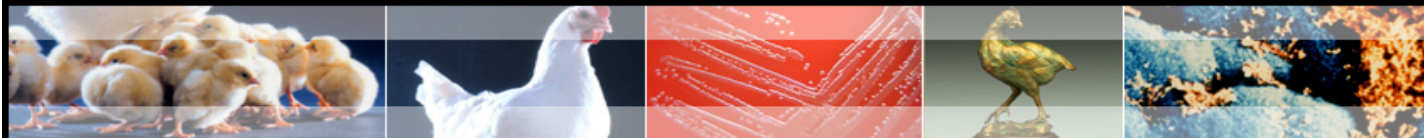
Bob Bevans-Kerr, Executive Director  
Janece Bevans-Kerr, Director of Member Services

American Association of Avian Pathologists  
12627 San Jose Blvd., Suite 202  
Jacksonville, FL 32223-8638  
904.425.5735  
281.664.4744 (fax)  
aaap@aaap.info



# 2010 Annual Meeting

**aaap** American Association of Avian Pathologists



August 1-4, 2010 Atlanta, GA  
Georgia World Congress Center

Sunday, August 1, 2010 7:30AM - 12:30PM

**Animal Welfare Symposium: Reality, Perception & Thinking Outside the Box**

Georgia World Congress Center (GWCC), Room B313

Monday - Tuesday, August 2-3, 2010 8:00AM - 5:30PM

**AAAP Scientific Program**

GWCC, Rooms B312 & B313

Monday, August 2, 2010 10:00 - 10:30AM

**Keynote Speaker, Dr. Christine Hoang**

Is the Sky Falling? Current and Future Challenges in Poultry Medicine

GWCC, Room B313

Monday, August 2, 2010 12:15PM - 2:45PM

**AAAP Awards Luncheon**

The Omni Hotel @ the CNN Center, Dogwood Room

Tuesday, August 3, 2010 8:15AM - 8:30AM

**Reed Rumsey Award Winner: Natalie K. Armour**

*Evaluation of the Pathogenicity and Transmissibility of Two Recent Mycoplasma synoviae Isolates from Arkansas*

GWCC, Rooms B313

Tuesday, August 3, 2010 10:00 - 10:30AM

**Lasher-Eckroade History Lecture, Dr. David Espeseth**

Historical Data on Establishing Regulatory Oversight of Poultry Vaccines

GWCC, Room B313

Tuesday, August 3, 2010 10:30AM - 12:00PM

**AAAP Business Meeting**

GWCC, Room B313

Tuesday, August 3, 2010 2:00PM - 2:15PM

**Richard B. Rimler Memorial Paper: Chasity M. Cox**

*The Effects of Dietary  $\beta$ -Glucan Supplementation on Performance and Immune Response of Broiler Chicks during an Eimeria Challenge*

GWCC, Rooms B312

Tuesday, August 3, 2010 3:30PM - 3:45PM

**Richard B. Rimler Memorial Paper: Milos Markis**

*Feather Tip Monitoring of Marek's Disease Virus in Experimental and Commercial Settings*

GWCC, Rooms B313

Tuesday, August 3, 2010 4:30PM - 4:45PM

**Reed Rumsey Award Winner: Payvand Parvizi**

*Regulatory T Cell Marker Expression in Splenic CD4+ and CD8+ T Cell Subsets of Chickens Infected with Marek's Disease Virus (MDV)*

GWCC, Rooms B313

Wednesday, August 4, 2010 8:00 - 12:00PM

**AAAP Scientific Program** (continuation)

Omni Hotel @ the CNN Center, International Ballrooms D&E

**Dwight Schwartz Travel Award Winner: Travis Schaal**

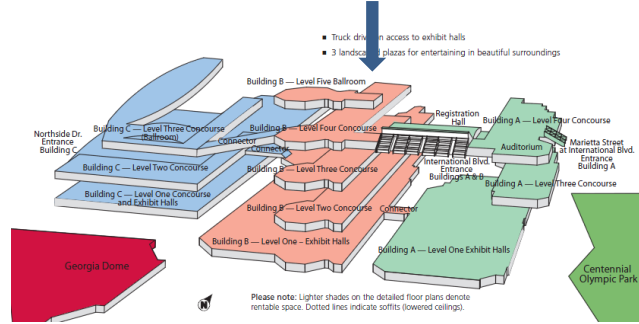
An Alternative to the Traditional "Poultry Pathologist" - Veterinary Careers through the USDA Food Safety Inspection Service

GWCC, Room B314

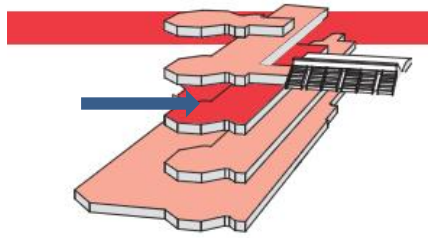


# The Georgia World Congress Center

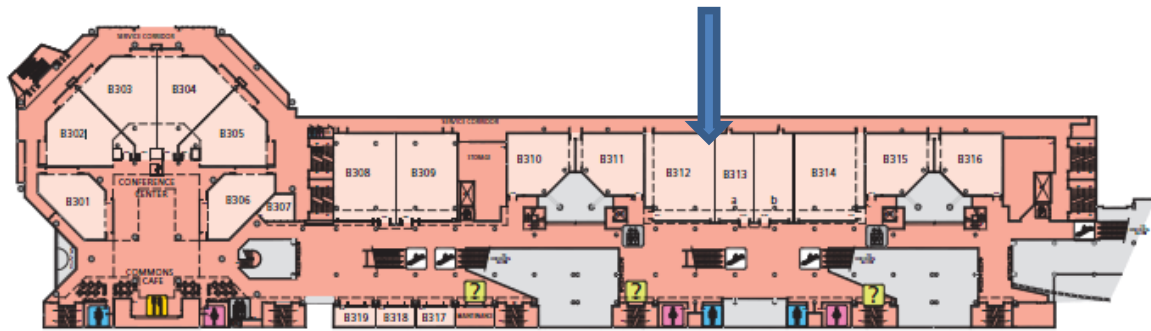
We are in the Center Building of the GWCC



On the Third Floor



In Rooms B312 & B313



## AAAP Committee/Affiliated Groups Meetings

| TIME                             | Meeting Name   | Contact Person            | Room #          |
|----------------------------------|--|---------------------------|-----------------|
| <b>Friday July 30, 2010</b>      |  |                           |                 |
| 7:00am-5:00pm                    | <b>AAAP Board of Directors Meeting</b>                             | Janece Bevans-Kerr        | Dogwood B       |
| <b>Saturday July 31, 2010</b>    |  |                           |                 |
| 7:00am-12:00pm                   | <b>AAAP Foundation Board Meeting</b>                               | Janece Bevans-Kerr        | Dogwood B       |
| 1:00pm-5:00pm                    | <b>AAAP Board of Directors Meeting</b>                             | Janece Bevans-Kerr        | Dogwood B       |
| 7:00am-8:00pm                    | <b>ACPV Exam</b>   | Janece Bevans-Kerr        | Chestnut        |
| 7:00am-8:00pm                    | <b>ACPV Exam #2</b>  | Janece Bevans-Kerr        | Hickory         |
| 7:00am-10:00pm                   | <b>ACPV Exam #3 - (Exam Grading Room)</b>                          | Janece Bevans-Kerr        | Walnut          |
| 8:00am-4:00pm                    | <b>Association of Veterinarians in Broiler Production</b>          | Phil Stayer               | Dogwood A       |
| 7:00am-9:00am                    | <b>AVBP Breakfast c/o Merial</b>                                   | David Smith/Anita Strange | Cottonwood A    |
| 12:00pm-1:00pm                   | <b>AVBP Lunch</b>  | Tim Davis                 | Cottonwood B    |
| 10:30am-5:00pm                   | <b>Association of Veterinarians in Turkey Production</b>           | Steven Clark              | Ballroom A      |
| 1:00pm-4:00pm                    | <b>Histopathology/Case Report Interest Group</b>                   | H.L. Shivaprasad          | Redwood         |
| <b>Sunday August 1, 2010</b>     |  |                           |                 |
| 6:30-am7:30 am                   | <b>AVMA Representatives Group</b>                                  | Y.M. Saif                 | Cypress         |
| 6:30am-7:30am                    | <b>Georgia MAM Alumni Breakfast</b>                                | Karen Grogan              | Dogwood B       |
| 7:00am- 7:30am                   | <b>New AAAP Member Reception</b>                                   | Andres Montoya            | Poster Room     |
| 11:30am-1:30pm                   | <b>Association of Primary Poultry Breeder Veterinarians</b>        | Eric Jensen               | Cottonwood A    |
| 1:00pm-2:00pm                    | <b>Awards Committee</b>  | Darrell Kapczynski        | Cypress         |
| 1:00pm-2:00pm                    | <b>Drugs &amp; Therapeutics Committee</b>                          | Hector Cervantes          | Juniper         |
| 1:00pm-2:00pm                    | <b>Electronic Information Committee</b>                            | Ton Schat                 | Magnolia        |
| 1:00pm-2:00pm                    | <b>Food Safety Committee</b>                                       | Marty Ewing               | Ballroom A      |
| 1:00pm-2:00pm                    | <b>Avian Diseases Manual Editorial Board</b>                       | Martine Boulianne         | Beechnut        |
| 1:00pm-2:00pm                    | <b>Diseases of Poultry Editorial Board</b>                         | David Swayne              | Pecan           |
| 2:00pm-3:00pm                    | <b>Biologics Committee</b>   | Charlie Broussard         | Walnut          |
| 2:00pm-3:00pm                    | <b>Diseases of Public Health Significance Committee</b>            | Bruce Stewart-Brown       | Chestnut        |
| 2:00pm-3:00pm                    | <b>Education Committee</b>   | Isabel Gimeno             | Sycamore        |
| 2:00pm-3:00pm                    | <b>Isolation, Identification Manual Editorial Board</b>            | Louise Dufour-Zavala      | Hazelnut        |
| 2:00pm-3:00pm                    | <b>Preceptorship Committee</b>                                     | Steve Roney               | Intl Ballroom C |
| 2:00pm-3:30pm                    | <b>Tumor Virus Committee</b>                                       | Gregorio Rosales          | Hickory         |
| 2:00pm-4:00pm                    | <b>Animal Welfare Committee</b>                                    | Kristi Scott              | Redwood         |
| 3:00pm-4:00pm                    | <b>Emergency Disease Management Committee</b>                      | Bruce Stewart-Brown       | Cottonwood A    |
| 3:00pm-4:00pm                    | <b>Membership Committee</b>  | Andres Montoya            | Cottonwood B    |
| 3:00pm-4:00pm                    | <b>Research Priorities Committee</b>                               | John Smith                | Cypress         |
| 3:00pm-5:00pm                    | <b>Respiratory Diseases Committee</b>                              | Maricarmen Garcia         | Dogwood A       |
| 4:00pm-5:00pm                    | <b>Enteric Diseases Committee</b>                                  | Eric Jensen               | Ballroom A      |
| 4:00pm-5:00pm                    | <b>Epidemiology Committee</b>                                      | Suzanne Dougherty         | Beechnut        |
| 4:00pm-5:00pm                    | <b>History Committee</b>   | John Dunn                 | Hazelnut        |
| 4:00pm-5:00pm                    | <b>TIME Committee</b>  | Mariano Salem             | Walnut          |
| 6:00pm-7:00pm                    | <b>Univ. of Minnesota Center For Animal Health and Food Safety</b> | Brendan Lee               | Ballroom A      |
| <b>Monday, August 2, 2010</b>    |  |                           |                 |
| 6:00am-8:00am                    | <b>Association of Veterinarians in Egg Production</b>              | Eric Gingerich            | Dogwood B       |
| 7:00am-8:00 am                   | <b>Avian Diseases Editorial Board</b>                              | Jagdev Sharma             | Dogwood A       |
| 7:00am-11:00am                   | <b>ACPV Board of Governors Meeting</b>                             | Janece Bevans-Kerr        | Redwood         |
| 12:15pm-2:45pm                   | <b>AAAP Awards Luncheon</b>  | Janece Bevans-Kerr        | Dogwood         |
| 7:30pm-11:00pm                   | <b>NC State University Poultry Health Management</b>               | David Ley                 | Redwood         |
| <b>Tuesday, August 3, 2010</b>   |  |                           |                 |
| 7:00am-9:00am                    | <b>ACPV Reception/Annual Meeting</b>                               | Janece Bevans-Kerr        | Dogwood A       |
| 12:30pm-2:00pm                   | <b>AAAP Past Presidents Luncheon</b>                               | Janece Bevans-Kerr        | Cottonwood A    |
| 10:30am-Noon                     | <b>AAAP Business Meeting (Convention Center)</b>                   | Janece Bevans-Kerr        | B313            |
| <b>Wednesday, August 4, 2010</b> |  |                           |                 |
| 7:00am-Noon                      | <b>AAAP Board of Directors Meeting</b>                             | Janece Bevans-Kerr        | Redwood         |

# AAAP Symposium

## Animal Welfare: Reality, Perception & Thinking Outside the Box

**Sunday, August 1, 2010 (7:30AM – 12:30PM)**

- 7:30 – 7:45 AM** Welcome and Introduction – *Dr. Helen Wojcinski, Hendrix Genetics*
- 7:45 – 8:25 AM** Consumers, Industry and Animal Welfare – *Dr. Wes Jamison, Associate Professor of Communication, Palm Beach Atlantic University*
- 8:25 – 8:50 AM** Animal Welfare Experiences and Lessons Learned – *Dr. Bernie Beckman, Director of Technical Service, Hy-Line North America*
- 8:50 – 9:15 AM** Animal Welfare Experiences and Lessons Learned – *Dr. Bob Edson, Vice President of Operations, Aviagen Turkeys, Inc.*
- 9:15 – 9:40 AM** Perspective from the Cattle Industries – *Dr. Mike Siemens, Cargill Beef*
- 9:40 – 10:05 AM** Perspective from the Swine Industries – *Dr. Scanlon Daniels, Circle H Headquarters, LLC*
- 10:05 – 10:25 AM** Break
- 10:25 – 10:50 AM** Poultry Welfare Auditing & Current Issues – *Dr. David Hermes, Perdue Farms*
- 10:50 – 11:15 AM** Research & Science – One View on the Human-Animal Relationship as Examined on Laying Hen Welfare – *Dr. Michael Lilburn, The Ohio State University*
- 11:15 – 11:40 AM** Public Relations - What, How and When to Convey Your Thoughts on Animal Welfare – *Mr. Mike Bumgarner, VP, Center for Food and Animal Issues, Ohio Farm Bureau Federation; and Hilary Thesmar, Senior Director, Scientific and Regulatory Affairs, National Turkey Federation.*
- 11:40 – 12:10 PM** Interactive Workshop (audience participation)
- 12:10 – 12:30 PM** Summary and Questions - *Dr. Helen Wojcinski, Hendrix Genetics*

| Room B312 |   | Room B314   |
|-----------|---|---|
| Moderator | Suzanne Y. Dougherty  | Julie Helm  |
| 8:00 AM   | <b>Lymphoid Leukosis in a Broiler Breeder Flock</b><br>H. John Barnes, Isabel M. Gimeno, Oscar J. Fletcher, John T. Brake, Michael P. Martin  | <b>Differences in Replication and Adaptation of Low Pathogenic Avian Influenza Viruses (LPAIV) to Tracheal Organ Cultures from Pekin Duck, Turkey and Homing Pigeon</b><br>Silke Rautenschlein, Henning Petersen, Mikhail N. Matrosovich, Stephan Pleschka  |
| 8:15 AM   | <b>Egg Production Loss in Turkey Breeders</b><br>Mark E. Blakley  | <b>Shore-Bird Origin Low Pathogenicity H7 Avian Influenza Virus Differs in Its Replication in Ducks vs. Land-Based Poultry</b><br>J. Gelb, Jr., L. A. Preskenis, B. S. Ladman, E. Spackman, C. R. Pope  |
| 8:30 AM   | <b>Aspergillosis in Broiler Breeders Like You've Never Seen</b><br>Tim Cummings, Floyd Wilson, Danny Magee, SueAnn Hubbard  | <b>Evidence of Partial Immunity to H5N1 Highly Pathogenic Avian Influenza Virus Infection in Wood Ducks (Aix Sponsa) Pre-Exposed to Low Pathogenic Avian Influenza Viruses</b><br>Taiana P Costa, Justin D Brown, Elizabeth W Howerth, David E Swayne, David E Stallknecht  |
| 8:45 AM   | <b>Extreme Mortality in a Flock of Broiler Breeder Hens Exposed to Narasin</b><br>Joel L. Cline, John F. Roberts, Susan B. Lockaby, Sandra E. Mann, Frederic J. Hoerr   | <b>Field Evidence of Neuraminidase Stalk Deletion During Transmission of Influenza A Virus (H6N1) from Duck to Turkeys</b><br>Jean-Luc Guerin, Sebastien Soubies, Guillaume Croville, Christelle Volmer, Romain Volmer  |
| 9:00 AM   | <b>A Case of Pulmonary Hemorrhage Caused by a Staphylococcus aureus in Broiler Breeder Pullets</b><br>Darko Mitevski, Jenny Fricke, Tom Inglis  | <b>Characterization of an Avian Influenza Virus PB2 Mutant of A/duck/PA/1969 (H6N1) Generated by Reverse Genetics</b><br>Lauren Gay, Egbert Mundt   |
| 9:15 AM   | <b>Investigating Causes of Excessive Urate Production in Broiler Breeder Hens Associated with Peritonitis and Cannibalism Mortality</b><br>Bradley J. Turner, Robert Wideman, Fred Hoerr, Stephen Collett, Jeff Courtney, Scott Westall, Suzanne Young, Marshall Putnam | <b>Identification of a Dual Specific T Cell Epitope of the Haemagglutinin (HA) Antigen of Avian Influenza Virus H5 Subtype in Chickens</b><br>Shayn Sharif, Hamid R. Haghghi, Leah R. Read, Sm. Mansour Haeryfar, Shahriar Behboudi   |
| 9:30 AM   | Break   |   |
| Moderator | Richard Chin  |   |
| 10:00 AM  | Keynote Speaker: <b>Is the Sky Falling? Current and Future Challenges in Poultry Medicine</b><br>Dr. Christine Hoang <span style="float: right;">Room 313</span>  |   |
| Moderator | Sam Christenberry   | Dan Karunakaran   |
| 10:30 AM  | <b>Incubation Conditions Affect Tendon Development in Broilers</b><br>Edgar O. Oviedo-Rondón, Jaroslava Halper, Mike J. Wineland, Peter Ferket, Joshua Cummock, Abel Kusovschi  | <b>AIV H1N1 DNA Vaccine Induced Humoral and Cell-Mediated Immunity in SPF Chickens</b><br>J. J. Giambrone, S. C. Ou, N. K. Singh, H. Wu, K. S-Gunn, S. R. Singh   |
| 10:45 AM  | <b>Bloody Vents Associated with Cloacitis in Broiler Breeder Flocks: Part I: Field Investigations, Clinical Description and Epidemiology</b><br>Michael P. Martin, Oscar J. Fletcher, David H. Ley, Rosemary A. Marusak, Kabel M. Robbins, H. John Barnes               | <b>Characterization and Efficacy Determination of Commercially Available Central American H5N2 Avian Influenza Vaccines for Poultry</b><br>Dawn Eggert, David Swayne  |
| 11:00 AM  | <b>Bloody Vents Associated with Cloacitis in Broiler Breeder Flocks II. Histopathology and Other Diagnostic Tests</b><br>Oscar J. Fletcher, Michael Martin, H. John Barnes, David H. Ley, Rosemary Marusak, Kabel Robbins   | <b>Generation of Non-Pathogenic Asian Lineage High Growth H5N1 Influenza Virus Strains Using Reverse Genetics for Production of Poultry Vaccines and Diagnostic Antigens</b><br>Samadhan Jadhao, David Swayne, David Suarez   |
| 11:15 AM  | <b>What is Your Diagnosis? An Unusual Broiler Disease in South Mississippi</b><br>Mark Burleson, Phil Stayer  | <b>Pathogenesis of Avian Influenza Virus Infection in Chickens and Ducks Using Reverse Genetics Generated A/VN/1203/04 with Lysine or Glutamate at PB2 Amino Acid 627</b><br>Karel A. Schat, John Bingham, Sue Lowther, Ruben Donis, Li-Mei Chen, Jeff Butler, Jessica Klippel, Tim Hancock, Dayna Johnson, Rachel Robinson, John Lowenthal |



## Monday, August 2, 2010 (continued)

| Room B312 |  | Room B314   |
|-----------|--|---|
| 11:30 AM  | <b>Clinical Pathology and Pathological Findings in Cyanotic Broiler Breeder Males (Purple Head Males)</b><br>Danny L. Magee, Kelli H. Jones, Floyd D. Wilson, Erica D. Baravik, Lanny W. Pace  | <b>Passive Antibody Transfer in Chickens to Model Maternal Antibody after Avian Influenza Vaccination</b><br>Olivia T. Bowen, Carlos Estevez, Qingzhong Yu, David L. Suarez   |
| 11:45 AM  | <b>Phenotypic Analysis of Enterococcus cecorum Field Isolates Associated with Vertebral Osteoarthritis</b><br>Kabel Robbins, Rosemary Marusak, Michael Martin, Luke Borst, H. John Barnes  | <b>Influenza Infection in European Starlings</b><br>Chang-Won Lee, Zhuoming Qin, Teresa Clement, Leyi Wang, Mahesh Khatri, Yan Zhang, Jeffrey T. LeJeune  |
| 12:15 AM  | <b>AAAP Awards Luncheon Lunch</b><br>served at 12:30 PM<br>Dogwood Room, Omni Hotel  |   |
| Moderator | Donna Kelly  | Holly Sellers   |
| 3:00 PM   | <b>Role of Ornithobacterium rhinotracheale in Causing Peritonitis in Egg Laying Chickens</b><br>Kakambi V. Nagaraja, D.A. Halvorson, Anil J. Thachil   | <b>Differences in Innate Immune Responses to H5N1 Highly Pathogenic Avian Influenza Virus Infection between Pekin, Muscovy and Mallard Ducks</b><br>Caran Cagle, Jamie Wasilenko, Mary Pantin-Jackwood  |
| 3:15 PM   | <b>Increasing the Gene Pool to Understand APEC Pathogenesis</b><br>Kelly A Tivendale, Paul M Mangiamele, Lisa K Nolan  | <b>Avian Influenza Vaccination with Non-Replicating Adenovirus Vector: Assessment of Protection after either Mucosal Delivery or Decreasing Dose Applied by the In Ovo Route</b><br>Haroldo Toro, De-chu C. Tang, David L. Suarez, Frederik W. van Ginkel |
| 3:30 PM   | <b>Fertile vs Infertile Contaminated Eggs</b><br>Sue A. Hubbard  | <b>Determination of Survivability of Avian Influenza (AI) Viruses in Different Types of Poultry Litter</b><br>Aline P.R. Reis, Casey W. Ritz, David E. Stallknecht, Maricarmen Garcia   |
| 3:45 PM   | <b>Improved Isolation of Salmonella from Poultry Samples Using Modified Semisolid Rappaport Vassialidis (MSRV)</b><br>W. Douglas Waltman   | <b>10 Years of Avian Influenza Control in the New York Live Bird Markets</b><br>Susan C. Trock, John P. Huntley   |
| 4:00 PM   | <b>Comparison of Multiple Arizona Isolates from Amphibian, Reptile, Mammal, and Avian Species in Proximity of a Poultry Flock Diagnosed with Arizonosis</b><br>Douglas A Anderson  | <b>Biosecurity and Highly Pathogenic Avian Influenza Outbreak Response Training in Transnistria and Egypt</b><br>Richard M. Fulton  |
| 4:15 PM   | <b>Examination of the Salmonella Risk Posed By Rodent Activity</b><br>Katherine N. Hayes, A. Gregorio Rosales, Eric L. Jensen, Phillip B. Eidson, Carolyn L. Miller  | <b>Infectious Bronchitis Virus Heat-Shock Attenuation of the GA08 Strain and Efficacy Testing in Broilers</b><br>Mark W. Jackwood, Deborah A. Hilt, Holly S. Sellers, Susan M. Williams, Hiram N. Lasher  |
| 4:30 PM   | <b>The Impact of Salmonella Vaccination Program on Salmonella Transmission and Chicken Carcass Contamination in Commercial Poultry Integrators</b><br>Fernanda Dórea, Dana Cole, Charles Hofacre, Demetrius Mathis, Katherine Zamperini, John Maurer           | <b>Specific Immune Responses Associated with Viral Subpopulations Selected in Chickens after Vaccination with Ark-Type Infectious Bronchitis Vaccines</b><br>Eunice N. Ndegwa, Vicky L. van Santen  |
| 4:45 PM   | <b>In-vitro and In-vivo Differential Expression of Cytokines and Histological Changes following Salmonella Infections in Poultry</b><br>Ahmed M Setta, Michael A Jones, Paul A Barrow  | <b>Development of a Type-Specific Blocking ELISA for the Detection of Infectious Bronchitis Virus Antibody</b><br>Hui-Wen Chen, Ivan-Chen Cheng, Ching-Ho Wang  |
| 5:00 PM   | <b>The Relationship between the Numbers of Salmonella Enteritidis, S. Heidelberg, or S. Hadar Colonizing Reproductive Tissues of Experimentally Infected Laying Hens and Deposition Inside Eggs</b><br>Richard K. Gast, Rupa Guraya, Jean Guard, Peter S. Holt | <b>Pathological and Immunological Features after the Inoculation of Cockerels With a Variant Strain of IBV</b><br>Laura Y B Villarreal, Sjaak De Wit, Marcelo Beletti, Breno C B Beirao, Leonardo J Richtzenhain, Paulo E Brandao                         |
| 5:15 PM   | <b>Is Horizontal Gene Transfer Implicated in the Emergence of Salmonella enterica serovar Kentucky among Poultry?</b><br>Timothy Johnson, Jessica L. Thorsness, Randall S. Singer, Adam L. Stell   | <b>Effects of CAV and/or IBDV on IBV Replication and Phenotypic Drift</b><br>Rodrigo A. Gallardo, Vicky L. van Santen, Haroldo Toro   |
| 5:30 PM   | Adjourn  |   |

| Room B312 |  | Room B314  |
|-----------|--|--|
| Moderator | Elleen Katigbak  | Scott Gustin   |
| 8:00 AM   | <b>Protection of Broiler Chickens against Infectious Bursal Disease by DNA Vaccination in the Face of Maternally Derived Antibodies</b><br>Ching Ching Wu, Mingkun Hsieh, Tsang Long Lin   | <b>Evaluation of Mycoplasma synoviae Challenge Methodologies</b><br>Naola Ferguson-Noel, Victoria Laibinis   |
| 8:15 AM   | <b>Efficacy of IBDV Vaccination Programs in Breeders: Seroconversion and Progeny Challenge Studies</b><br>Enrique Montiel, Nikki Pitchard, Julio Cruz, Elleen Katigbak   | <b>REED RUMSEY AWARD: Evaluation of the Pathogenicity and Transmissibility of Two Recent Mycoplasma synoviae Isolates from Arkansas</b><br><b>Natalie K. Armour</b> , Naola Ferguson-Noel, Scott J. Gustin, Stephen R. Collett |
| 8:30 AM   | <b>Vaccination of Specific Pathogen Free Chicks with Live Commercial Infectious Bursal Disease Virus Vaccines</b><br>M. Q. Al-Natour, M.K. Hassan, Y. M. Saif  | <b>Avian Mycoplasma Genotyping by Pyrosequencing</b><br>Ziv Raviv, Amy Wetzel  |
| 8:45 AM   | <b>Interference between Different HVT-Vectored Vaccines Applied Subcutaneously at Day-Old in Commercial Broilers</b><br>Vilmos J. Palya, Timea Tatar-Kis, Tamas Mato, Yannick Gardin   | <b>Differentiation of Avianpox Viruses by PCR Amplification of Specific Genes</b><br>Deoki N. Tripathy, Bahaa A. Fadl-Alla   |
| 9:00 AM   | <b>Field Investigations using an rHVT-IBD Vaccine in U.S. Broilers</b><br>Yannick Gardin, Vilmos Palya, Tamas Mato, Timea Tatar-Kis, Roberto Soares, Branko Alva, Christophe Cazaban, Sylvain Comte, Fernando Lozano, Zoltan Penzes, Kristi Moore Dorsey | <b>Description and Analysis of an Outbreak of Vaccinal Laryngotracheitis in Broilers</b><br>Louise Dufour-Zavala   |
| 9:15 AM   | <b>Vaccination against Chicken Infectious Anemia Virus in Broiler Breeders Using Inactivated Reovirus/Infectious Bursal Disease Vaccines and Aluminum Hydroxide as Adjuvants</b><br>William A. Parker, Guillermo Zavala, Taylor Barbosa                  | <b>Prevalence of ILT and Control Measures in Latin America</b><br>Fernando Lozano, Yannick Gardin, Maricarmen Garcia, Pascal Paulet  |
| 9:30 AM   | Break  |  |
| Moderator | John Smith   |  |
| 10:00 AM  | Lasher-Eckroade History Lecture: <b>Historical Data on Establishing Regulatory Oversight of Poultry Vaccines</b><br>Dr. David Espeseth   | Room B313  |
| 10:30 AM  | <b>AAAP Business Meeting</b> Rooms B313  |  |
| 12:00 PM  | <b>Lunch Break</b>   |  |
| Moderator | Nancy Reimers  | Ben Johnson  |
| 1:00 PM   | <b>Molecular Comparative Analysis of Some Egyptian IBDV Field and Vaccinal Strains</b><br>Ashraf M. Metwally, Ausama A. Yousif, Ismail M. Reda   | <b>Generation of a Glycoprotein J Deletion Mutant of Infectious Laryngotracheitis Virus (ILTV) as Potential Vaccine for a DIVA Approach</b><br>Alice Mundt, Egbert Mundt, Maricarmen Garcia                                    |
| 1:15 PM   | <b>Identification of a Distinct Antigenic Subtype of Infectious Bursal Disease Virus by Molecular and Serological Methods</b><br>Vijay Durairaj, Holly Sellers, Erich Linneman, Alan Icard, Egbert Mundt   | <b>Evaluation of the Protection Induced by Recombinant Infectious Laryngotracheitis Virus (ILTV) Vaccines in Broiler Chickens</b><br>Ariel E. Vagnozzi, Sylva M Riblet, Guillermo Zavala, Maricarmen Garcia                    |
| 1:30PM    | <b>Co-Infection of Variant and Very Virulent Infectious Bursal Disease Viruses in SPF Chickens</b><br>Daral J. Jackwood, Susan E. Sommer-Wagner  | <b>Marek's Disease Virus as a Vectored Vaccine for Infectious Laryngotracheitis and Marek's Disease</b><br>Robert F. Silva   |
| 1:45PM    | <b>Economic Impact of Variant IBD on Broiler Production in Saskatchewan, Canada</b><br>Susantha Gomis, Tara Zachar, Tennille Knezacek, Robert Goodhope   | <b>Experimental Evaluation of In Ovo-Administered Virus-Vectored Laryngotracheitis Virus Vaccines for Prevention of Disease in Broiler Chickens</b><br>James S. Guy, Isabel Gimeno, Melissa West                               |

## Tuesday, August 3, 2010

| Room B312 |  | Room B314   |
|-----------|--|---|
| 2:00 PM   | <p style="text-align: center;">RICHARD B. RIMLER MEMORIAL PAPER AWARD:<br/> <b>The Effects of Dietary <math>\beta</math>-Glucan Supplementation on Performance and Immune Response of Broiler Chicks during an Eimeria Challenge</b><br/> <b>Chasity M. Cox</b>, Lindsay H. Stuard, Sungwon Kim, Mike Bedford, Audrey P. McElroy, Rami A. Dalloul</p>        | <p style="text-align: center;"><b>Detection and Identification of ILT Virus with Immunofluorescence Microscopy</b><br/>                     Reynaldo S. Resurreccion</p>  |
| 2:15 PM   | <p style="text-align: center;"><b>Monitoring of Inflammation Induced by Subclinical Experimental Coccidiosis in Chicken or Turkey Using Plasma Protein Electrophoresis</b><br/>                     Charles Facon, Jean-Michel Reperant, Martine Germain, Jean-Luc Guerin</p>  | <p style="text-align: center;"><b>Investigation of Incubation Period, Shedding, and Immune Response of Commercial Broiler Chickens to the CEO Vaccine and USDA Reference Strains of Infectious Laryngotracheitis Virus</b><br/>                     Nathaniel L. Tablante, Kimberly Menendez</p>  |
| 2:30 PM   | <p style="text-align: center;"><b>Immuno-localization of Macrophage Inhibitory Factor (MIF) in Apicomplexan Parasites Eimeria tenella and Eimeria acervulina, as well as the Host Organism, the Chicken (Gallus gallus)</b><br/>                     Katarzyna B. Miska, Raymond H. Fetterer, Mark C. Jenkins, Sungwon Kim, Rami Dalloul</p>                 | <p style="text-align: center;"><b>Persistence and Dissemination of Field Isolates and Vaccine Strains of Infectious Laryngotracheitis Virus in Vaccinated and Non-vaccinated Geographic Regions</b><br/>                     Jorge L. Chacón, Antonio P. Ferreira</p>   |
| 2:45 PM   | <p style="text-align: center;"><b>Tracking Strains of Eimeria maxima in Commercial Poultry Operations using Gene-specific Markers</b><br/>                     Mark C. Jenkins, Raymond Fetterer, Katarzyna Miska</p>  | <p style="text-align: center;"><b>Field Experiences with Recombinant HVT &amp; ILT and TC Vaccination on Table Egg Pullets</b><br/>                     Hugo A. Medina</p>  |
| 3:00 PM   | Break  |   |
| Moderator | Sara Steinlage   | Andy McRee  |
| 3:30 PM   | <p style="text-align: center;"><b>Characterization of an Eimeria Specific Protein</b><br/>                     R.H. Fetterer, R.S. Schwarz, K.B. Miska, M.C. Jenkins</p>   | <p style="text-align: center;">RICHARD B. RIMLER MEMORIAL PAPER AWARD:<br/> <b>Feather Tip Monitoring of Marek's Disease Virus in Experimental and Commercial Settings</b><br/>                     Milos Markis, John K. Rosenberger, Sandy Rosenberger, Grace Isaacs, Erin Bernberg, Grace Lagasse, Amy Anderson, Lisa Waidner, Joan Burnside, and Robin Morgan</p> |
| 3:45PM    | <p style="text-align: center;"><b>Coccidiosis Exposure in Caged-Reared Layers and Immunization with Coccivac-D</b><br/>                     Linnea J. Newman, Mike Petrik, John Barta</p>  | <p style="text-align: center;"><b>Comparison of Blood and Feather Pulp Samples for the Diagnosis of Marek's Disease and for Monitoring Marek's Disease Vaccination by Real Time PCR</b><br/>                     Aneq L. Cortes, Enrique R. Montiel, Isabel M. Gimeno</p>   |
| 4:00 PM   | <p style="text-align: center;"><b>Comparison of Two Experimental Coccidiosis Vaccine Formulations When Administered to Commercial Broilers Raised in High or Low Clostridial Challenge Conditions: Growout and Performance Outcomes</b><br/>                     Jon L. Schaeffer, Keith A. Ameiss, G. Donald Ritter, Rebecca M. Poston</p>                  | <p style="text-align: center;"><b>Effect of Marek's Disease Vaccines Dilution on the Outcome of Marek's Disease After Challenge with Highly Pathogenic Marek's Disease Viruses</b><br/>                     Isabel M. Gimeno, Aneq L. Cortes, Enrique R. Montiel</p>  |
| 4:15 PM   | <p style="text-align: center;"><b>Comparison of the Performance of Broilers Given Either in Feed Anticoccidial Drugs or Vaccinated With a Commercial Anticoccidial Vaccine</b><br/>                     Robert L. Owen, Greg Mathis, Mark Lavorgna, James Skinner</p>  | <p style="text-align: center;"><b>Studies on Marek's Disease Virus Encoded Ribonucleotide Reductase</b><br/>                     Lucy F. Lee, Mohammad Heidari, Robert Silva, Sanjay M. Reddy</p>   |
| 4:30 PM   | <p style="text-align: center;"><b>Evaluation of the Impact of Amprolium Administration on Oocyst Cycling, Immunity Generation, and Performance in Coccidiosis Vaccinated Broiler Breeders</b><br/>                     Samantha K. Pohl, Jason T. Lee, Charles T. Broussard, Scott J. Gustin, Suzanne Y. Dougherty, Steve H. Fitz-Coy, David J. Caldwell</p> | <p style="text-align: center;">REED RUMSEY AWARD:<br/> <b>Regulatory T Cell Marker Expression in Splenic CD4+ and CD8+ T Cell Subsets of Chickens Infected with Marek's Disease Virus (MDV)</b><br/>                     Payvand Parvizi, Katelyn Andrzejewski, Shayan Sharif</p>   |
| 4:45 PM   | <p style="text-align: center;"><b>Is There a Role of Coccidial Infection in the Incidence of Gangrenous Dermatitis in Broilers?</b><br/>                     Kenneth W. Bafundo, Hector M. Cervantes, Greg F. Mathis</p>   | <p style="text-align: center;"><b>Screening for Recombinant Avian Leukosis Viruses in Cell Cultures Inoculated with Various Subgroups of Virus</b><br/>                     Aly M. Fadly, Jody K. Mays, Henry D. Hunt</p>   |
| 5:00 PM   | <p style="text-align: center;"><b>Lessons Learned from 15 Euthanasia Exercises</b><br/>                     Martin A. Smeltzer, Louise Dufour-Zavala</p>   | <p style="text-align: center;"><b>Characterization of a Novel ALV-related Genome Isolated from Archived Chicken Bone Affected with Osteopetrosis</b><br/>                     Taylor Barbosa, Marcia Ramirez, Scott Hafner, Sunny Cheng, Guillermo Zavala</p>   |
| 5:15 PM   | Adjourn  |   |

|           | Omni Hotel Intl Ballroom D   | Omni Hotel Intl Ballroom E  |
|-----------|--|---|
| Moderator | Mark Lobstein  | Dave Hermes   |
| 8:00 AM   | <b>Animal Agriculture Antibiotics: DANMAP Revisited</b><br>Steven R. Clark, Jeremy Mathers   | <b>Establishment of Vaccine Candidates to Runting Stunting Syndrome of Chicken Using the Metagenomic Approach</b><br>Taejong Kim, Egbert Mundt  |
| 8:15 AM   | <b>Etiological Agents Associated with Condemned Livers of Broiler Chickens in Saskatchewan, Canada</b><br>Keyvan Amini, Robert Goodhope, Susantha Gomis  | <b>The Histopathology and Other Diagnostic Findings of Runting Stunting Syndrome in Broilers</b><br>Frederic J. Hoerr, Lanqing Li, Susan B. Lockaby, Tamara F. Kelly, Joel L. Cline, Samuel P. Christenberry                                  |
| 8:30 AM   | <b>Listeria Control in Turkey Processing Facilities</b><br>Becky J. Tilley, Alice L. Johnson, Anita L. Colglazier  | <b>Reproduction of Runting Stunting Syndrome (RSS) in Broilers and Turkeys with Enteric Viruses Isolated from Commercial Broiler and Turkey Flocks</b><br>John K. Rosenberger, Sandra C. Rosenberger, Toria Boon                              |
| 8:45 AM   | <b>Real-Time PCR for Screening of Salmonella sp., Listeria monocytogenes, and Escherichia coli O157:H7 in Eggs</b><br>Rocio Crespo, Dennis Schaberg, Syliva Weber, Fonda Gutierrez   | <b>Performance Data and Challenge Results of Progeny from Runting and Stunting Virus Vaccinated Breeders</b><br>G. Thomas Holder, John K. Rosenberger   |
| 9:00 AM   | <b>Ileal and Cecal Microbial Populations in Broilers given Specific Essential Oil Blends and Probiotics in Two Consecutive Grow-outs</b><br>E.O. Oviedo-Rondón, Michael E. Hume, N.A. Barbosa, N.K. Sakomura   | <b>Initial Identification, Detection, and Analysis of novel RNA viruses in the Turkey Gut Using a Metagenomic Approach</b><br>J. Michael Day, Laszlo Zsak   |
| 9:15 AM   | <b>Intestinal Characterization of Avian Defensin and Cytokines after the Early Administration of Probiotic with Organic Acids in Broilers</b><br>Juan C. Rodríguez-Lecompte, Jessica Brady, Gilberto Camelo-Jaimes, Shayan Sharif, Garry Crow, Bill Guenter, James House | <b>Vaccination of Turkey Breeders to Protect Progeny from Runting and Stunting Syndrome</b><br>David V. Rives, John K. Rosenberger  |
| 9:30 AM   | Break  |   |
| Moderator | Steve Collett  | JoAnna Quinn  |
| 10:00 AM  | <b>Immunopathology and Local Cytokine Responses in Commercial Broiler Chickens with Gangrenous Dermatitis</b><br>Hyun S. Lillehoj, Guangxing Li, Kyung W. Lee, Sung H. Lee, Seung I. Jang, Donald Ritter, Daniel A. Bautista, Gregory R. Siragusa                        | <b>The Pathogenicity of Parvovirus in Chickens</b><br>Laszlo Zsak, J. Michael Day   |
| 10:15 AM  | <b>Feed Additives Impact on Gangrenous Dermatitis in Broilers</b><br>Philip A Stayer, Mark A Bursleson, Jackson L McReynolds   | <b>Parvovirus-Associated Cerebellar Hypoplasia and Hydrocephalus in Day-Old Broiler Chickens</b><br>Rosemary A. Marusak, James S. Guy, Tahseen A. Abdul-Aziz, Melissa A. West, Oscar J. Fletcher, J. Michael Day, Laszlo Zsak, H. John Barnes |
| 10:30 AM  | <b>Development of a Successful Model Creating Clostridium Dermatitis in Turkeys using an Oral Challenge Model</b><br>Stephen W. Davis  | <b>Development of a Real-Time PCR Test for the Detection of Turkey Parvoviruses in Fecal Samples</b><br>Maria V. Murgia, Abdul Rauf, Y.M. Saif  |
| 10:45 AM  | <b>Comparison of Two Bacteriophage Derived Enzymes that Lyse Strains of Clostridium perfringens</b><br>Bruce S. Seal, Mustafa Simmons, Gregory R. Siragusa, David M. Donovan   | <b>Genotypic Analysis of Selected Avian Adenovirus Isolates from Diagnostic and Monitoring Cases</b><br>Arun B. Kulkarni, Reynaldo Resurreccion   |
| 11:00 AM  | <b>Quail Ulcerative Enteritis Vaccination with a Combination of Partially Attenuated Lower Intestinal and Cecal Coccidia</b><br>Douglas A Anderson, Douglas Pennock  | <b>Avian Bornavirus: A Major Development in Avian Virology</b><br>H. L. Shivaprasad, K. S. Honkavuori, T. Briese, W. I. Lipkin, I. Tizard   |
| 11:15AM   | <b>Investigations into Increased Incidence of Necrotic Enteritis (NE) when Using Coccidial Vaccines in a High Clostridium perfringens (CP) Commercial Broiler Environment</b><br>G. Donald Ritter  | <b>Newcastle Disease Virus VG/GA Strain In Ovo Vaccination for Commercial Broilers</b><br>Francisco Perozo, Pedro Villegas, Rafael Fernandez, Rodriguez Meryner, Saume Elsy   |
| 11:30 AM  | <b>Efficacy of a Clostridium Perfringens Alpha Toxoid Vaccine In Breeder Hens for Providing Progeny Protection Against an On-Feed Challenge with Virulent C. Perfringens Type A Isolate</b><br>Joan S. Schrader, Linda R. Gergen, Terri L. Wasmoen                       | <b>Determination of the Full Length Sequence and Analysis of the Properties of an APMV-8 Wild Bird Isolate During Replication in Chickens and Ducks</b><br>Egbert Mundt, Ashwini Warke, David Stallknecht, Susan M. Williams, Nikki Pritchard |

## Wednesday, August 4, 2010 (continued)

|          | Omni Hotel Intl Ballroom D  | Omni Hotel Intl Ballroom E   |
|----------|---|--|
| 11:45 AM | <b>Evaluation of Genetic Resistance to Necrotic Enteritis in Chickens as Influenced by Major Histocompatibility Complex</b><br>Lindsay H. Stuard, Vanessa Oakes, Chasity M. Cox, Sungwon Kim, Frank W. Pierson, Paul B. Siegel, Rami A. Dalloul | <b>Levels of Humoral Antibodies Induced by Different Inactivated Vaccines Correlate with Egg Production in Commercial Layers Challenged with Virulent Newcastle Disease Virus</b><br>Patti J. Miller, Leonardo Susta, Corrie C. Brown, Eduardo Lucio Decanini, Angel E. Absalón, Claudio L. Afonso |
| 12:00 PM | <b>Adjourn</b>  |  |

### **Poster Session** **August 1- August 3, 2010** **Room B313**

#### Avian Influenza

##### **Isolation, Characterization and Inactivation of H1N1 Viruses from Wild Waterfowl**

Teresa V. Dormitorio, Kejun Guo, Joseph J. Giambrore

##### **Serologic Cross Reactivity of Avian Influenza H1 Vaccinated Commercial U.S. Turkeys to the Emergent H1N1 Influenza Virus**

Darrell R. Kapczynski, Eric Gonder, Becky Tilley, David L. Suarez, David E. Swayne

##### **Avian Influenza H5N1 Natural Infection in Pet Birds**

Ghada S. Moussa

##### **High-Throughput Pyrosequencing of Host Adapted H5N1 Low Path Avian Influenza Viral Genomes**

Brian S. Ladman, Jack Gelb, Jr., Conrad Pope, Erica Spackman, Richard Slemons

##### **H5N1 Infection in Domestic and Free Living Water Fowl in Nile River Canals in Villages in Upper Egypt**

Salah A. Mousa, Omar K. Amen

##### **Increased Virulence in Ducks of H5N1 Highly Pathogenic Avian Influenza Viruses from Egypt**

Mary J. Pantin-Jackwood, Jamie L. Wasilenko, David Suarez, David Swayne

##### **Differences in Pathogenicity of A/Duck/Vietnam/201/05 H5N1 Highly Pathogenic Avian Influenza Virus Reassortants in Ducks**

Jamie Wasilenko, Luciana Sarmento, Caran Cagle, Mary Pantin-Jackwood

##### **Characterization of H5N2 Influenza Viruses Isolated**

Yanbing Li, Zhenhua Duan, Yi Zhang, Dequan Yang, Jianzhong Shi, Liling Liu, Guobin Tian, Xianying Zeng, Hualan Chen

##### **High Production Loss in Layers and Breeders and Heavy Mortality in Broilers Due To Combination of vvND and H9N2 AI in Iran**

Seyed Mehdi Mirsalimi, Reza Tavayef

##### **Characterization of Avian Influenza Virus (H9N2) Isolated from Layer Farm in Korea**

Seong-Hwan Byun, Chang-Hee Lee, In-Pil Mo

##### **Characterization of Recent H9N2 Avian Influenza Viruses Isolated From Chickens**

Haan-Woo Sung, Ho-Jun Seo, Jin-Hwa Lee, Hyuk-Moo Kwon

##### **Immune Response to AIV H5N2 with Different Protocols of Vaccination**

A. Garcia F., R. Salamanca, B. Carmona M., M.A. and C. Garcia V.O.

##### **Experimental Studies with Homologous Subtype Avian Influenza Virus Vaccines Produced with Multiple Antigenically Different Seed Strains**

Erica Spackman

##### **Combined In Ovo-Vaccination with Non-Replicating Adenovirus-Vectored Avian Influenza and Marek's Disease Vaccines**

Cassandra Breedlove, Frederik W. van Ginkel, De-chu C. Tang, Haroldo Toro

##### **Avian Influenza Vaccination with Non-Replicating Adenovirus Vector: Target Tissues in Chicken Embryo**

Haroldo Toro, Minc, K., C. Bowman, D.C. Tang, J. Hathcock

##### **In Ovo-Vaccination with Non-Replicating Adenovirus-Vectored Avian Influenza: Maternal Immunity and Effects on Vaccination**

Alexander Mesonero, De-chu C. Tang, Haroldo Toro

##### **Inactivated H9N2 Avian Influenza Virus Vaccine with Gel-Primed and Mineral Oil-Boosted Regimen Could Produce Improved Immune Response in Chicken**

Dong-Hun Lee, Hyun-Jeong Lee, Yu-Na Lee, Seung-Hwan Jeong, Tae-Hyun Lim, Ha-Na Youn, Myeong-Seob Kim, Won Hur, Joong-Bok Lee, Seung-Yong Park, In-Soo Choi, Chang-Seon Song

##### **Development and Field Application of M2e ELISA for Differentiation of Infected from Vaccinated Chickens of H9N2 Avian Influenza**

Min-Chul Kim, Jun-Gu Choi, Ji-Sun Kwon, Hyun-Mi Kang, Mi-Ra Paek, Ok-Mi Jeong, Jun-Hun Kwon, Youn-Jeong Lee

##### **Multiplex Microsphere Assay for Detection of Avian Influenza Virus H5 and H7 Subtypes**

Teneema Kuriakose, Deborah A.Hilt, Mark W.Jackwood

##### **Shedding and Survivability of Low Pathogenic Avian Influenza (LPAI) Viruses in Chickens, Quails and Turkeys**

Aline R. Reis, David E. Stallknecht, Maricarmen Garcia

##### **The Pathogenesis of H3N8 Canine Influenza Virus in Poultry Species**

Erica Spackman, Mary Pantin-Jackwood

## **Avian Influenza (continued)**

**Risk Assessment for Movement of Washed and Sanitized Shell Eggs during a Highly Pathogenic Avian Influenza Outbreak**  
Sasidhar Malladi, Janel D. Funk, Timothy J. Goldsmith, David A. Halvorson, Morgan J. Hennessey, Will D. Hueston, Brendan Lee

**Improved Biosecurity in Controlling Highly Pathogenic Avian Influenza: A Private-Public Partnership Initiative**  
Shankar P. Mondal, David Tardif-Douglin, Robert Ryan-Silva, Rich Magnani

**Development of an eXtension Community of Practice on the Prevention and Control of Avian Influenza**  
Nathaniel L. Tablante, Savannah O'Toole, Pamela King, Jennifer Timmons, Nickolas Zimmermann

## **Bacteria**

**Evaluation and Implementation of an Automated Bacterial ID System for Avian Pathogens**  
Kevin Smith, Selena York

**A Longitudinal Study Evaluating the Effect of Gut-Colonizing Bacteria on the Prevalence of E. coli**  
Dave V. Fernandez, Michael Martin

**Distribution, Expression and Secretion of the RTX-Toxin Gtxa among Members of the Genus Gallibacterium**  
Anders M. Bojesen, Bodil M. Kristensen, Dorte Frees

## **Clostridium**

**Secretory Protein Profile of Clostridium perfringens from Cellulitis Cases in Turkeys**  
Anil J. Thachil, David A. Halvorson, Kakambi V. Nagaraja

**Molecular Characterization of Clostridium sp. associated with Turkey Cellulitis**  
Robert Porter, Matheus Costa, Simone Oliveira, Clint Been, Scott Wells, Morgan Hennessey, Patricia Belford, Michelle Andersen, Brian McComb, Andre Ziegler, Sri Sreevatsan

## **Coccidiosis**

**Hyperimmune Egg Yolk IgY Antibodies Against Eimeria Mediate Protective Immunity Against Avian Coccidiosis by Inhibiting Sporozoite Invasion and Reducing Pro-Inflammatory Cytokine Response**  
Hyun S. Lillehoj, Sung H. Lee, Lucio E. Decanini

**Oocyst Cycling and Shedding Pattern of a Novel Live Coccidiosis Vaccine**  
Joan S. Schrader, Steven Fitz-Coy, Charles T. Broussard, Deborah S. Higuchi, Terri L. Wasmoen

**Efficacy of a Novel Live Coccidiosis Vaccine Containing Both Precocious and Non-precocious Eimeria maxima Strains against Virulent E. maxima Challenge**  
Joan S. Schrader, Deborah S. Higuchi, Steven Fitz-Coy, Charles T. Broussard, Terri L. Wasmoen

## **Food Safety**

DWIGHT SCHWARTZ TRAVEL AWARD  
**An Alternative to the Traditional "Poultry Pathologist" - Veterinary Careers through the USDA Food Safety Inspection Service**  
Travis Schaal

**Is APEC a Source of Human ExPEC?**  
Lisa K. Nolan, Kelly A. Tivendale, Ganwu Li, Paul Mangiamele, Yvonne M. Wannemuehler

**Survey of Food-borne Pathogenic and Indicator Bacteria in the Processing Plants of Duck**  
Eun-ok Jeon, Rok-Ju Shin, In-Pil Mo

**Salmonella Isolated from Commercial Poultry Processing in NE Georgia**  
Karen A. Liljebjelke, John A. Cason, Kimberly D. Ingram, Arthur Hinton Jr.

**Comparative Analysis of S. Senftenberg from Poultry and Humans**  
Catherine M. Logue, Shana R. Petermann, Julie S. Sherwood, Ryan Stepan

**Use of Comparative Genomics and Eukaryotic Cell Adherence/Invasion Assays of the Food-Borne Pathogen Campylobacter jejuni for the Identification of Putative Virulence Factors**  
Kelli L. Hiett, E. Deann Akins, Mustafa Simmons, Bruce S. Seal

**Bacterial Contamination of Commercial Chicken Eggs in Grenada, West Indies**  
Ravindra N. Sharma, Arathy Sabarinath, Guillaume Vanpee, Guillaume Belot, Vanessa Matthew, Claude DeAllie

## **Fungus**

**Dactylaria Infection of the Eyes and Brains of Broiler Breeder Pullets**  
James F. Davis, Oscar J. Fletcher

## **Immunology**

**U. S. Veterinary Immune Reagents Network: Progress with Poultry Immune Reagents**  
Hyun S. Lillehoj, Sung H. Lee, Duck K. Kim, Cynthia Baldwin, Danielle Tompkins, Joanna LaBresh, Yvonne Sullivan, Bettina Wagner

**Analysis of the Turkey Genome Sequence Reveals New Insights into Avian Immune Systems**  
Rami A. Dalloul, Dave W. Burt, Kent M. Reed, Otto Folkerts, Pete Kaiser, Ed J. Smith, Roger A. Coulombe, Jerry B. Dodgson

**Simultaneous Temporal Monitoring of IBDV, IBV, Reo, and NDV Antibodies using a Liquid Microsphere Array**  
Michaela Hoffmeyer, Matilde Alfonso, Bill Hewat, Hillary Hagan, Tom Copa, Harold Baker

## **Infectious Bronchitis Virus**

### **Implications of Multiple Virus Populations in the Arkansas Strain of IBV on Pathogenicity**

Jamie E. Phillips, Debbie A. Hilt, Mark W. Jackwood

### **RT-PCR Detection of Infectious Bronchitis Virus in Broilers with Deep Pectoral Myopathy**

Elmiro R. Nascimento, Davi de O. Almeida, Sankhiros Babapoor, Mazar I. Khan, Virginia Léo A. Pereira, Rogerio Tortelly

### **Effects of Infectious Bronchitis Virus on Chicken Testicles**

Rodrigo A. Gallardo, Vicky L. van Santen, Frederic J. Hoerr, Haroldo Toro

### **Molecular Characterization of the Nephropathogenic Infectious Bronchitis Genome**

Sharmi W. Thor, D. A. Hilt, M. W. Jackwood

### **Protective Efficacy of Commercial Vaccines against New Emerging Recombinant Strains of Nephropathogenic Infectious Bronchitis Virus in Korea**

Tae Hyun Lim, Hyun Jeong Lee, Ha Na Youn, Youn Jeong Lee, Jae Hong Kim, Jang Hyuck Han, Won Hur, Joong Bok Lee, Seung Yong Park, In Soo Choi, and Chang Seon Song

### **Field Trial of Trivalent IB Vaccine Containing New Variants (KIIa)**

Bon-Sang Koo, Sang-Wook Lee, Jong-Bo Shim, In-Pil Mo

### **Highly Localized Infections with Ark-type IBV Vaccines**

Vicky L. van Santen, Eunice N. Ndegwa

## **Infectious Bursal Disease**

### **Morbidity, Mortality and Pathology Caused by Different Challenge Doses of vvIBDV**

Daral J. Jackwood, Susan E. Sommer-Wagner, Simone Stoute

### **Persistence and Distribution of Infectious Bursal Disease Virus in Various Tissues of Chickens**

Abdul Rauf, Maria V. Murgia, Mahesh Katri, Y.M. Saif

### **A Real-Time RT-PCR Developed for Surveillance and Differential Detection of vvIBDV and Endemic IBDV**

Daral J. Jackwood, Beate M. Crossley, Leslie Woods, Hailu Kinde, Sharon K. Hietala

### **Comparison of Common Tools Following VECTORMUNE HVT IBD Vaccination**

George D. Boggan, Alecia Godoy, Ellie Brimer, Kristi Moore, Yannick Gardin

### **Comparative Protection against Infectious Bursal Disease between Coarse Spray and Drinking Water Vaccination in Commercial Broilers**

Pablo Reyna, Eliana Icochea, Diana Castellanos, John Guzmán, Rosa Perales, Rosa González, Mercedes Sialer

### **Assessment of the Take of an Immune Complex IBD Vaccine under Various Field Conditions, Using Molecular Techniques**

Yannick Gardin, Vilmos Palya, Tamas Mato, Timea Tatar-Kis, Roberto Soares, Branko Alva, Christophe Cazaban, Sylvain Comte, Fernando Lozano, Zoltan Penzes, Kristi Moore Dorsey

### **Comparison of the Effect of *Cryptosporidium baileyi* (*C. baileyi*) and Infectious Bursal Disease Virus on the Bursa of Fabricius of SPF Chicks**

Hayet Abbassi, Muriel Naciri

## **Laryngotracheitis**

### **Optimization of a Duplex Real-Time PCR for Quantitation of Infectious Laryngotracheitis Virus (ILTV) in Tracheal Swabs**

Ariel E Vagnozzi, Sylva M Riblet, Taylor Barbosa, Guillermo Zavala, Maricarmen García

### **Infection of Broilers with Two Virulent Strains of Infectious Laryngotracheitis Virus (ILTV): Criteria for Evaluation of Experimental Infections**

Maricarmen Garcia, Ariel Vagnozzi, Sylva M. Riblet, Guillermo Zavala

### **Efficacy of Two Vaccine Programs against Infectious Laryngotracheitis in Layers**

Eliana Icochea, Pablo Reyna, Manolo Fernandez, Rosa Gonzalez, Rosa Perales, John Guzman

### **Protection Study of Vaccine Programs against Infectious Laryngotracheitis in Broilers**

Eliana Icochea, Pablo Reyna, Manolo Fernandez, Rosa Gonzalez, Rosa Perales

## **Management & Welfare**

### **Survey of Antibiotics Available in Feed Stores for Small Poultry Flocks**

Julie D. Helm, Donna J. Kelly, Dana Giurgiutiu

### **Evaluation of Strategies to Enhance Compliance of Biosecurity Measures**

Manon Racicot, Jean-Pierre Vaillancourt

### **The Effects on Broiler Performance of Various Levels of Nitrogenous Compounds in Poultry Drinking Water**

Elena L. Behnke, John Smith

### **How to Please the Welfare Auditor (And Make Them Go Away)**

James T. Barton

## **Mycoplasma**

### ***Mycoplasma iowae* Real-Time PCR Validation and Comparative Testing of Samples from Commercial Turkeys**

David H. Ley, Scott A. Callison

### **Molecular characterization of MG isolates from Jordan**

Saad Gharaibeh, Victoria Laibinis, Ruth Wooten, Naola Ferguson-Noel

### **Comparison of *Mycoplasma* Detection by Real-Time PCR from Flocked, Cotton or Polyester Swabs**

Victoria A. Laibinis, Naola Ferguson-Noel

### **Serological Survey of *Mycoplasma gallisepticum* and *Mycoplasma synoviae* in Backyard and Auction Poultry in Georgia**

Benjamin C. Johnson, Len Chappell

## **Neoplastic Diseases**

### **Diagnosis of Marek's Disease from a Japanese Quail (*Coturnix japonica*) using Paraffin-Embedded Liver**

John R. Dunn, Teresa Southard, Coreen Cooper, Matti Kiupel, Richard L. Witter

### **Natural Infection with Exogenous Avian Leukosis Virus (ALV) in Egg-Type Chickens**

Guillermo Zavala, Sunny Cheng, Taylor Barbosa

### **Identification of Lymphoproliferative Disease Virus in Wild Turkeys (*Meleagris gallopavo*) in the Southeastern United States**

Justin D. Brown, Andrew B. Allison, Andrew N. Cartoceti, M. Kevin Keel

## **Newcastle Disease**

### **Pathological and Immunohistochemical Study of the Reproductive Tracts of Vaccinated Layers Infected with the Virulent CA02 Strain of Newcastle Disease Virus**

Leonardo Susta, Patti J Miller, Eduardo Lucio Decanini, Angel E Absalón, Claudio L Afonso, Corrie C Brown

### **Neurological Lesions in Chickens Experimentally Infected With Virulent Newcastle Diseases Virus Isolates**

Roselene Ecco, Leonardo Susta, Claudio L. Afonso, Patti J. Miller, Corrie Brown

### **Clinicopathological Characterization of Two Recombinant Newcastle Disease Viruses Derived From a Virulent Chinese Strain**

Leonardo Susta, Patti J Miller, Shunlin Hu, Xiufan Liu, Cary A Rue, Claudio L Afonso, Corrie C Brown

### **Safety and Efficacy of Live Newcastle Disease Vaccine Originated from Wild Birds**

In-Pil Mo, Jong-Bo Shim, Ho-Keun Won, Hyun-Hee So

### **Development of Recombinant Newcastle Disease Virus LaSota Strain-Based Multivalent Vaccine Vector**

Qingzhong Yu, Jason Roth, Haixia Hu, Carlos Estevez, Laszlo Zsak

## **Nutrition**

### **Performance and Reduction of Condemnation Lesions in Broilers Subjected To Synergistic Supplements**

E.K. Barbour, Zahi El-Hajj, Houssam Shaib, Houssam Itani, Maya Saadeh, Wiam Haidar, Lina Jaber, Rania Semioj

### **Effects of Tribasic Copper Chloride on Growth Performance and Intestine Mucosal Immunity of Broiler Chickens**

Ye Ding, Ruiping She, Huihui Bao, Deping Han, Zhuo Yue, Jijing Tian, Pin Yu, Ruiwen Li, Jun Yin

## **Parasitic Diseases**

### **Parasitic Ventriculitis in Pigeons**

C. Gabriel Senties-Cué, Lucy Anthenill, L. McDougald, B. R. Charlton, R. Houston, M. Bland

## **Pathology**

### **Histomorphometric & Histological Studies on Age-Associated Changes in the Myocardium and Arteries of Meat-Type Chickens**

Floyd Wilson, Kelli H. Jones, Danny L. Magee, Lanny W. Pace

### **Early Small Intestine Development is Affected by either Antibiotic or Probiotics Treatments: Implication on Intestinal Innate Immunity**

Juan C. Rodríguez-Lecompte, Gilberto Camelo-Jaimes, Garry Crow, Jessica Brady, James House

### **Muscle Pathology in Cases Involving Broilers and Broiler Breeders**

Frederic J. Hoerr, Susan B. Lockaby

## **Runting Stunting Syndrome**

### **Identification and Molecular Characterization of RSS Enterovirus from Broilers Using RT-PCR and Sequencing**

Lanqing Li, Emily E. Handley, Michael R. Luther, Alicia Wise, Alana Fulmer, Frederic J. Hoerr

### **Experimental Inoculation of Specific-Pathogen-Free Broiler Chicks with a Thyroid Homogenate, Containing Chicken Astrovirus, Collected from Field Broiler Chickens with Runting-Stunting Syndrome**

James F. Davis, Erica Spackman, Mary Pantin-Jackwood, Adam Davis Salmonella

### **Outbreaks of Pullorosis with Nervous Tropism in Broilers in Vietnam**

Alexis Kiers, Léni Corrand, Oliver Albaric, Vu Hoai Thu, Patrice Gautier, Jean-Luc Guerin

### **Protective Efficacy Study of Bacteriophage Feed Additives against *Salmonella Gallinarum***

Ha-Na Youn, Hyun-Jeong Lee, Dong-Hun Lee, Yu-Na Lee, Seung-Hwan Jeong, Tae-Hyun Lim, Myeong-Seob Kim, Min-Ae Thak, Jung-Un Kim, Joong-Bok Lee, Seung-Young Park, In-Soo Choi, Chang-Seon Song

### **Occurrence of Bacterial Arthritis Caused by *Salmonella enterica* serovar Enteritidis in an Integrated Broiler Company**

Yong-Kuk Kwon, Min-Soo Kang, Byung-Ki An, Eun-A Song, Byeong-Yeal Jung, Jun-Hun Kwon, Gab-Soo Chung

## **Viruses**

### **A Preliminary Survey of Hemagglutinating Viruses in the Coast of Pinamar, Argentina**

Celina Buscaglia

### **Monitoring of Avian Paramyxovirus Type 1 in Wild Birds in the Coast of Lima**

Rosa González, Eliana Icochea, Armando González, Bruno Ghersi, David Blazes, Joel Montgomery

### **Epidemiological Studies of Avian Paramyxovirus Type-4 and 6 infection in Domestic and Wild Birds**

Hae-Rim Lee, Jeong-Hwa Shin, Kang-Seuk Choi, In-Pil Mo

### **Cross Protective Efficacy of Inactivated Oil-Emulsion FAdV-4 Vaccine in Specific Pathogen Free and Broiler Chickens**

Myeong-seob Kim, Tae-hyun Lim, Seung-Hwan Jung, Hyun-jeong Lee, Dong-hoon Lee, Ha-na Yoon, Hong-kyung uhn, Jang Hyuck Han, Joong-Bok Lee, Seung-Yong Park, In-Soo Choi, Chang-Seon Song



## **Viruses (continued)**

### **Characterization of Goose Hemorrhagic Polyomavirus (GHPV) Infection in Ducks**

Léni Corrand, Olivier Albaric, Jean-Luc Pingret, Jean-Luc Guerin

### **A Challenge Model of Fowl Adenovirus Serotype-4 for Evaluation of Vaccine Efficacy in Chickens**

Ji-Ye Kim, Jong-Nyeo Kim, In-Pil Mo

### **Development and Evaluation of VP3-ELISA for Detection of Goose and Muscovy Duck Parvovirus Antibodies**

Yun Zhang, Ming Liu, Vanhanseng, Yongfeng Li

### **A Novel Picornavirus Associated with Turkey Viral Hepatitis**

H. L. Shivaprasad, K. S. Honkavuori, T. Briese, W. I. Lipkin

### **Detection and Quantitation of Turkey Coronavirus in Intestines and Feces from Infected Turkeys by Real-Time RT-PCR**

Tsang Long Lin, Yi-Ning Chen, Ching Ching Wu, Thomas Bryan, Tom Hooper, Donna Schrader

### **Identification and Molecular Characterization of an Enteric Reovirus in Young Commercial Quail**

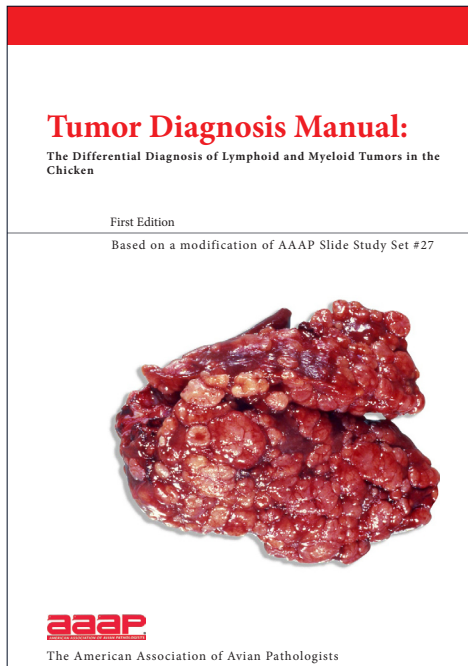
Lanqing Li, Emily Handley, Michael R. Luther, Alicia Wise, Alana Fulmer, Frederic J. Hoerr

### **Economic Impact of Reo Virus Vaccination on Selected Broiler Farms**

Samuel P. Christenberry, Travis Bowers, Mike Glass

### **Studies of Non-Metallic Organic Disinfectants on Inactivation of Avian Respiratory Viruses**

Huaguang Lu



### **Tumor Diagnosis Manual: The Differential Diagnosis of Lymphoid and Myeloid Tumors in the Chicken**

By Richard L. Witter, Isabel M. Gimeno, Arun R. Pandiri and Aly M. Fadly

This manual was written for diagnosticians and researchers in both field and laboratory to stimulate interest in tumor diagnostics and encourage the development of improved techniques. The manual contains 84 pages with over one-hundred images designed in 42 slide views. Release for sale on August 1, 2010.

Hard copy **and** Online copy available for \$50. (plus shipping)

Hard copy **or** Online copy only available for \$40 each. (plus shipping for hard copy if selected)

Available at the AAAP Information booth and online at [www.aaap.info/page/tumor](http://www.aaap.info/page/tumor)

**EDITOR**  
Jagdev M. Sharma  
The Biodesign Institute  
Arizona State University  
Tempe, Arizona 85287-5401  
addigest@aaap.info

**BUSINESS MANAGER**  
Charles L. Hofacre  
University of Georgia  
953 College Station Road  
Athens, Georgia 30602-4875  
aaap@aaap.info

**OFFICE MANAGER**  
Sylvia Lemus Sharma  
addigest@aaap.info  
Telephone 480-727-9587  
Fax 480-727-0386

**SCIENCE WRITER**  
Jeanne Engelmann  
engelmann@visi.com

To subscribe to *Avian Diseases*  
or *Avian Diseases Digest*,  
visit the AAAP at [www.aaap.info](http://www.aaap.info).

Volume 5  
Number 1  
Supplement  
March 2010

ISSN 1933-5334

# *Avian Diseases Digest*

Abstracts from *Avian Diseases* edited for industry and academic avian professionals.

This issue contains simplified, easy to read summaries of articles published in *Avian Diseases*  
Vol: 54 Issue#: 1 Supplement Year 2010. *Avian Diseases* is an international scientific journal dedicated  
to publishing the latest research findings in avian health and disease.



Published Quarterly by the American Association of Avian Pathologists  
Copyright 2010 by the American Association of Avian Pathologists, Inc.

## *Avian Diseases Digest*

Begun in 2006, *Avian Diseases Digest* was developed with the non-scientist avian professional in mind, but the busy avian scientist will find it a helpful tool as well. After reading an article in *Avian Diseases Digest*, the reader will understand what is being published and how the findings relate to him or her as poultry professionals. *Avian Diseases Digest* functions as a quick over-view of the latest scientific research. It does not take away the need to read *Avian Diseases* where all the technical details on each article are available. Published four times a year and available online in English and Spanish for \$45 a year.

Available at [www.aaap.info/page/ADDigest](http://www.aaap.info/page/ADDigest)

## Conference Notes & Contacts



**Future Convention Sites**

|       |              |               |                                     |
|-------|--------------|---------------|-------------------------------------|
| 2011* | July 16 - 19 | St. Louis, MO | America's Center Convention Complex |
| 2012  | August 4 - 7 | San Diego, CA | San Diego Convention Center         |
| 2013  | July 20 - 23 | Chicago, IL   | McCormick Place, West Building      |
| 2014  | July 26 - 29 | Denver, CO    | Colorado Convention Center          |

\* Combined Program with Poultry Science Association