

## AAAP Symposium on Poultry Vaccines and Vaccination Practices

<b>I. General vaccinology and vaccine development</b>		
8:00	The role of vaccines in poultry management and disease prevention Non-immunological host factors affecting vaccination Genetics; nutrition; performance cost to vaccination	<i>Mark Cook, U. of Wisconsin</i>
8:30	The host response to vaccination Overview of B and T cell responses Which diseases depend primarily on one or the other? Conventional vaccines (live and killed) Antigen characteristics and delivery favoring B vs. T cell responses	<i>Jim Roth, ISU</i>
9:00	Cytokine responses What do we know; how might this affect future vaccine development?	<i>Michael Kogut, Texas A&amp;M</i>
9:20	Adjuvants	<i>Virgil Schijns, Intervet Netherlands</i>
9:40	<b>Discussion</b>	
9:50	<b>Break</b>	
10:15	Recombinant vaccines and DNA vaccines - Unfulfilled promises	<i>Robert Silva, ADOL</i>
10:30	<i>In ovo</i> technology - Future directions	<i>Jagdev Sharma, U. of Minnesota</i>
10:45	What the end user needs and expects from vaccines	<i>Spangler Klopp, Townsend, Inc.</i>
11:00	Licensing policy issues What are the roadblocks to licensure? Duration of immunity and response evaluation	<i>Tom Mickle, Merial Byron Rippke, CVB</i>
11:30	<b>Discussion</b>	
11:45	<b>Lunch</b>	
<b>II. Specific vaccines and vaccine use</b>		
	Vaccines against respiratory diseases	
1:00	Infectious bronchitis (future vaccines against multiple serotypes?)	<i>Mark Jackwood, UGA</i>
1:20	Infectious laryngotracheitis	<i>Calvin Keeler, UD</i>
	Vaccines against enteric diseases	
1:50	Coccidiosis (current control issues; future control strategies)	<i>David Chapman, UA</i>
2:10	Intestinal viruses of turkeys (PEMS, Coronavirus, Small round viruses, Hemorrhagic enteritis virus) - Problems and prospects	<i>Dave Halvorson, U. of Minnesota</i>
2:30	<b>Discussion</b>	
2:40	<b>Break</b>	
	Vaccines against multisystemic diseases	
3:10	Infectious bursal disease	<i>Mo Saif, OSU</i>
3:30	Fowl cholera (live vaccines)	<i>John Glisson, UGA</i>
3:50	<b>Discussion</b>	
4:00	Food safety vaccines Salmonella, Campylobacter, Listeria - Future approaches	<i>Roy Curtiss, Washington U., St Louis</i>
4:30	Wrap-up discussion	<i>Vergil Davis</i>
5:00	<b>Adjourn</b>	

## 2002 AAAP/AVMA SCIENTIFIC PROGRAM

	Monday, July 15, 2002 Session A	Monday, July 15, 2002 Session B
	<b>Moderator:</b>	<b>Moderator:</b>
8:00	<b>Comparison of Neuraminidase length from avian influenza isolates from poultry and wild birds</b> Suarez, David	<b>Effect of prior serial <i>in vivo</i> passage on the frequency of deposition of <i>Salmonella</i> Enteritidis in eggs from experimentally infected laying hens</b> Gast, Richard and Peter Holt
8:15	<b>Evolution and relationship of recent H5 subtype avian influenza A viruses isolated in North America</b> Lee, Chang-Won and David Suarez	<b>Long-term characterization of Bacteriological and Isotype-specific Antibody Parameters in Chickens with early <i>Salmonella enterica</i> serovar <i>enteritidis</i> PT4 Infection</b> Bautista, Daniel, R. Sheela, Subbiah Elankumaran, Wenxia Song and Robert Heckert
8:30	<b>Analysis of the Avian Influenza Matrix Gene of North American Wild Waterfowl Isolates</b> Spackman, Erica and David Suarez	<b>Use of <i>sefA</i> fimbrial gene as a live recombinant vaccine against <i>Salmonella</i> Enteritidis in chickens</b> Lopes, Vanessa, B Velaydhan, David Halvorson and K Nagaraja
8:45	<b>Molecular relationships between avian influenza virus subtypes of H9N2 from Korea and highly pathogenic H5N1 from Hong Kong</b> Kim, Min, Sun Cho, Hyuk Kwon, Eun Lee and Sun Kim	<b>Induction of fimbriae – specific antibodies by a newly developed live <i>Salmonella</i> Enteritidis vaccine in poultry</b> Barbour, Elie, Gida Banat, Rabih Talhouk, Faris Jirjis and Mohammad Farran
9:00	<b>Immunohistochemical (IHC) Staining of Chorioallantoic Membrane for Evaluation of Monoclonal Antibodies to Avian Influenza Virus</b> Weinstock, Daniel, Marlene Castro, Huagang Lu, Iris Wang and Anthony Castro	<b>Live Attenuated and Killed <i>Salmonella</i> Vaccines Cause an Increase in Cell-mediated Immunity among Laying Hens</b> Babu, Uma, Mashassi Okamura, Dennis Gaines, Michael Myers, Richard Raybourne, Hyun Lillehoj and Robert Heckert
9:15	<b>Mucosal Delivery of Influenza Vaccine Protects Against Lethal Influenza A H5N1 Virus Infection</b> Tumpey, Terrence and Darrell Kapczynski	<b>Essentials of a Sustained SE-Risk Reduction Program – Review of 12 Years Program Implementation</b> Optiz, H. Michael, Donald Hoenig and Sheila Foster
	<b>Break 9:30 AM – 10:00AM</b>	<b>Break 9:30 AM – 10:00AM</b>
	<b>Moderator:</b>	<b>Moderator:</b>
10:00	<b>Application of a “DIVA” vaccination strategy for the control of avian influenza in Italy</b> Capua, Ilaria, Giovanni Cattoli, Calogero Terregino and Stefano Marangon	<b>Evaluation of <i>Salmonella</i> Serogroup Distributions from Commercial Broiler Houses</b> Ruiz, Jaime, Karen Burns, John Schleifer, Douglas Waltman and Charles Hofacre
10:15	<b>Development and Evaluation of a Challenge Model for Measuring Efficacy of Vaccines Against Mildly Pathogenic Avian Influenza Viruses</b> Swayne, David, Terry Tumpey, Erica Spackman, David Suarez, Joan Beck and Stacey Schultz-Cherry	<b>Identification of Risk Factors Associated with the Presence of <i>Salmonella</i> in Post-Chill Broilers</b> Wills, Robert and Hartford Bailey
10:30	<b>Avian Influenza in Retrospect – A Look at Three Epidemics</b> Kradel, David	<b>Characterization of <i>Salmonella</i> from Poultry Operations</b> Liljebjelke, Karen, Marie Maier, Tongrui Liu, David White, Charles Hofacre and John Maurer
10:45	<b>Measures of Pathogenicity for the Pigeon Paramyxovirus Type 1 (PPMV-1)</b> Panigrahy, Brundaban, Dennis Senne and Janice Pedersen	<b><i>Campylobacter</i> infection of young turkeys</b> Barnes, H. John, Sophia Kathariou, Jean-Pierre Vaillancourt, Shannon Kozlowicz and Jason Hartsell
11:00	<b>Biological and molecular characterization of recent Newcastle disease virus isolates before and after passage in chickens</b> King, Daniel, Glauca Kommers, Bruce Seal and Corrie Brown	<b>Possible Impact of <i>Campylobacter</i> Colonization in Commercial Turkeys</b> Reimers, Nancy, Katy Smith and Sophia Kathariou
11:15	<b>Protection study of NDV in broilers with two commercial vaccines containing VS-GA and PHY.LMV.42 strains</b> Alba, Monica, Eliana Icochea, Rosa Gonzalez and Branco Alva	<b>Factors affecting the emergence of quinolone-resistant <i>Campylobacter</i> in poultry</b> Zhang, Qijing and Naidan Luo

	Monday, July 15, 2002 <i>cont'd</i> Session A	Monday, July 15, 2002 <i>cont'd</i> Session B
	<b>AAAP Awards Luncheon 11:30 AM – 2:00 PM</b>	<b>AAAP Awards Luncheon 11:30 AM – 2:00 PM</b>
	<b>Moderator:</b>	<b>Moderator:</b>
2:00	<b>Molecular Detection and Differentiation of Muscovy Duck and Goose Parvoviruses</b> Pedersen, Janice, Dennis Senne and Brundaban Panigrahy	<b>Hypoglycemia-Spiking Mortality Syndrome: An Update</b> Davis, James, J. Doman and A. Castro
2:15	Reed Rumsey	<b>The Use of Plant Derived Antigens for Poultry Vaccines</b> Reynolds, Don and Sevinc Akinc
2:30	Reed Rumsey	<b>Diseases of quail observed in the Alabama State diagnostic laboratories: 1996-2001</b> Hoerr, Frederic, Susan Lockaby, Robert Matthews, Tami Kelly, Francene Van Sambeek and Joel Cline
	<b>Break 2:45 PM – 3:00PM</b>	<b>Break 2:45 PM – 3:30PM</b>
	<b>Moderator:</b>	<b>Moderator:</b>
3:00	<b><i>In vitro</i> cultivation of pigeon circovirus</b> Cardona, Carol and Vanessa Voegtly	<b>Association of <i>Pasteurella Multocida</i> Transmission via Artificial Insemination in Turkeys</b> Morishita, Teresa, Elisabeth Angrick and John Rule
3:15	<b>Impairment of cytotoxic T lymphocyte development by chicken infectious anemia virus correlates with increased viral load and altered cytokine transcript levels</b> Schat, Karel and Carrie Markowski-Grimsrud	<b>Epidemiology of Fowl Cholera in Georgia</b> Zavala, Guillermo, Louise Dufour-Zavala and Douglas Waltman
3:30	<b>Clinical and molecular characterization of chicken anemia virus isolates obtained from commercial broiler farms</b> Banda, Alejandro, Pedro Villegas, John El-Attrache and Corrie Brown	<b>Preliminary evaluation of a killed polyvalent fowl cholera vaccine in Kestrels</b> Wakenell, Patricia, Bill Ferrier and Brian Evans
3:45	<b>Chicken Infectious Anemia Virus (CIAV): Detection of Virus and Antibodies in Commercial Broilers</b> Sommer, Franz, Carol Cardona and Bruce Charlton	<b>Histomoniasis in Turkeys – A reemerging disease?</b> Shivaprasad, H. L., G. Senties-Cue, R. Chin, R. Crespo and B. Charlton
4:00	<b>Summary of Industry Reovirus Survey</b> Cummings, Timothy	<b>Systemic Histomoniasis in Commercial Turkeys</b> Senties-Cue, Gabriel, H. L. Shivaprasad and Richard Chin
4:15	<b>Characterization of Pathogenic Reoviruses Isolated from Broilers and Breeders in the Southeastern United States</b> Rosenberger, John and Sandra Cloud	<b>The DOA – A Study in Maximum Inefficiency</b> Opengart, Kenneth
4:30	<b>Microscopic lesions produced by recent isolates of Infectious Laryngotracheitis Virus from Northeast Georgia in chickens and chicken embryos</b> Brown, Tom and Mary Pantin	<b>Assessment of a multimedia turkey carcass trimming training program</b> Martinez, Algis, Jean-Pierre Vaillancourt and Eric Gonder
4:45	<b>Response to Challenge of Four Michigan Infectious Laryngotracheitis Virus Isolates</b> Fulton, Richard, Roger Maes and Cunqin Han	<b>Interpretation of ELISA titers for Georgia broilers, broiler breeders and commercial layers</b> Dufour-Zavala, Louise
5:00	<b>Adjourn</b>	<b>Adjourn</b>
	<b>Tuesday, July 16, 2002 Session A</b>	<b>Tuesday, July 16, 2002 Session B</b>
	<b>Moderator:</b>	<b>Moderator:</b>
8:00	<b>Marek's disease virus in turkeys: Experimental infection and a case report from France</b> Miles, Andrea, H. John Barnes, Jeremy Pittman and Jean-Luc Guerin	<b>Avian pneumovirus (APV) RNA isolated from seagulls shows genetic homology with RNA from APV isolates from domestic turkeys</b> Velayudhan, Binu, Vanessa Lopes, David Halvorson and Kakambi Nagaraja
8:15	<b>Persistence of Marek's disease virus in feather tips and spleens of chickens as detected by PCR</b> Spencer, J. Lloyd and Maria Chan	<b>Effect of age of turkeys on susceptibility to avian pneumovirus-induced disease and mitogenic inhibition</b> Gerbyshak-Szudy, Heather, Hayet Abbassi and Jagdev Sharma

	<b>Tuesday, July 16, 2002 <i>cont'd.</i></b> <b>Session A</b>	<b>Tuesday, July 16, 2002 <i>cont'd.</i></b> <b>Session B</b>
8:30	<b>Examination of Pathogenicity and Vertical Transmission of Herpesvirus in Japanese Quail</b> Link, Donald, Patricia Wakenell and Karel Schat	<b>Development and Evaluation of a Competitive ELISA for the Detection of Avian Pneumovirus Antibodies in Various Avian Species</b> Turpin, Elizabeth and David Swayne
8:45	<b>Mutagenesis and <i>in vivo</i> studies of Marek's Disease virus encoded Interleukine-8 like gene (vIL8)</b> Cui, Xiaoping, Lucy Lee, Isabel Gimeno, Willie Reed and Sanjay Reddy	<b>Role of local cellular immunity in protection against respiratory challenge with avian pneumovirus</b> Chary, Parag, Mathur Kannan and Jagdev Sharma
9:00	<b>Role of Marek's disease virus pp38 gene in pathogenesis</b> Reddy, Sanjay, Isabel Gimeno and Lucy Lee	<b>Avian Pneumovirus Disease (APV) Outbreaks in Turkeys in the Midwest: A Field Prospective</b> Medina,Hugo
9:15	<b>Role of 1.8 kb mRNA Family of Transcripts in Marek's Disease Virus Pathogenesis</b> Silva, Robert, Blanca Lupiani and Sanjay Reddy	<b>Evaluation of a wild bird avian pneumovirus isolate as a vaccine candidate</b> Halvorson, David, Richard Bennett, Moses Njenga and Kakambi Nagaraja
	<b>Break</b> <b>9:30 AM – 10:00 AM</b>	<b>Break</b> <b>9:30 AM – 10:00 AM</b>
	<b>Moderator:</b>	<b>Moderator:</b>
10:00	<b>History of Biological Control of Poultry Diseases in the U.S.</b> Hitchner, Stephen	
10:15		
	<b>Business Meeting</b> <b>10:30 AM – 12:00 Noon</b> <b>Lunch</b> <b>12:00 Noon – 1:00 PM</b>	<b>Business Meeting</b> <b>10:30 AM – 12:00 Noon</b> <b>Lunch</b> <b>12:00 Noon – 1:00 PM</b>
	<b>Moderator:</b>	<b>Moderator:</b>
1:00	<b>Immunologic tolerance in chickens hatching from eggs injected with cell-associated turkey herpesvirus (HVT)</b> Sharma, Jagdev and Yugen Zhang	<b>A comparison of diagnostic tests performed on brooding age poults and designed to identify PEMS agents</b> Kozlowicz, Shannon, Jean-Pierre Vaillancourt and H. John Barnes
1:15	<b>Immunological features of the serotype 1 Marek's Disease virus vaccines</b> Gimeno, Isabel, Richard Witter, Henry Hunt and Willie Reed	<b>Brooding performances in 43 turkey flocks depending on diagnostic results from tests developed for PEMS related agents</b> Vaillancourt, Jean-Pierre, John Barnes, Stacey Schultz-Cherry, Mo Saif, Tom Hooper, Jim Guy, Shannon Kozlowicz, Jason Hartsell, Nancy Reimers, Marion Garcia and David Rives
1:30	<b>Influence of B-hapotype on the efficacy of recombinant fowlpox vaccine protection against Marek's disease</b> Lee, Lucy, Larry Bacon and Richard Witter	<b>Use of a Human Cell Line to Induce Helper Virus-Free Replication of Avian Adeno Associated Virus</b> Estevez, Carlos, Pedro Villegas and John El-Attrache
1:45	<b>Development of new attenuated serotype 1 vaccines with improved efficacy against Marek's disease through cell culture passage, chicken backpassage, and retroviral insertion</b> Witter, Richard	<b>Stimulation of the innate immune system of broilers with DNA oligonucleotides containing CpG motifs (CpG DNA)</b> Gomis, Susantha, Dale Godson, Lorne Babiuk, Brenda Allan, Rolf Hecker and Andrew Potter
2:00	<b>Localization and profiling of reticuloendotheliosis virus (REV) protein/s in cultures infected with REV integrated fowlpox virus (Rev-FPV) strains</b> Tadese, Theodros and Willie Reed	<b>Effect of selected nutritional deficiencies on immune function</b> Sander, Jean, Chieh-Fu Chen and I-Hsin Cheng
2:15	<b>Epidemiology of RNA Tumor Viruses</b> Zavala, Guillermo and Louise Dufour-Zavala	<b>Dactylarthritis in broiler chickens</b> Van Sambeek, Francene, Susan Lockaby and Burton Maxfield
	<b>Break</b> <b>2:30 PM – 3:00 PM</b>	<b>Break</b> <b>2:30 PM – 3:00 PM</b>

	Tuesday, July 16, 2002 <i>cont'd.</i> Session A	Tuesday, July 16, 2002 <i>cont'd.</i> Session B
	<b>Moderator:</b>	<b>Moderator:</b>
3:00	<b>Molecular and biological characterization of naturally occurring recombinant avian leukosis (ALV) isolated from egg-type chickens suffering from myeloid leukosis</b> Lupiani, Blanca, Arun Pandiri, Henry Hunt, Willie Reed and Aly Fadly	<b><i>Mycoplasma gallisepticum</i> in Commercial Layers in Pennsylvania</b> Davison, Sherrill, Stanley Kleven, Eric Gingerich and Robert Eckroade
3:15	<b>Quantitation of viral RNA and proviral DNA levels of Subgroup J Avian Leukosis Virus (ALV J) by real time RT-PCR and PCR</b> Pandiri, Arun, Blanca Lupiani, Willie Reed and Aly Fadly	<b>Presence of Pathogenic Mycoplasmas in free flying visitor birds from commercial layer farms in the South Peruvian Coastal area (Chincha)</b> Noe, Norma, Eliana Icochea, Monica Alba, Rosa Gonzalez, Mirtha Roque and Sharon Levisohn
3:30	<b>The design and evaluation of antisense oligomers as potential inhibitors of avian leukosis virus replication</b> El-Attrache, John, Pedro Villegas, Scott Callison and Alejandro Banda	<b>Diagnosis of Mycoplasma infections in Colorado (1999 to present)</b> Wooming, Brian, David Ley and Sile Huyan
3:45	<b>Studies of subgroup J avian leukosis virus infection and tumors in a naturally infected commercial broiler breeder flock</b> Dybing, Jody, Arun Pandiri, Larry Bacon and Aly Fadly	<b>A House Finch-like <i>Mycoplasma gallisepticum</i> outbreak in a Midwest turkey company</b> Hermes, David and Michael Kopp
4:00	<b>Response of chickens from three commercial broiler breeders and two experimental lines to infection with a field strain of subgroup J avian leukosis virus</b> Fadly, Aly, Jody Dybing and Arun Pandiri	<b>The Characterization of a Naturally Occurring <i>Mycoplasma gallisepticum</i> House Finch-like strain from Commercial Turkeys</b> Ferguson, Naola, David Hermes, Victoria Leiting and Stanley Kleven
4:15	<b>Effects of injecting ALV-J antiserum in embryonating broiler eggs on localization of ALV-J in the tissues of broiler chickens infected <i>In Ovo</i></b> Gharaibeh, Saad and Tom Brown	<b>A Preliminary Investigation of a <i>Mycoplasma gallisepticum</i> House Finch-like strain as a Vaccine in Turkeys</b> Ferguson, Naola, Victoria Leiting and Stanley Kleven
4:30	<b>Incidence of Cancer in Layer Hens and Effects on Egg Production</b> Alban-Martinez, Gina, Donna Carver and H. John Barnes	<b>Sequencing as <i>iss</i>-containing Fragment from a Conjugative R Plasmid of an Avian <i>Escherichia coli</i> Isolate</b> Johnson, Timothy, Shelley Horne, Catherine Giddings and Lisa Nolan
4:45	<b>Mortality Patterns and Etiologies in Geriatric Laying Hens</b> Carver, Donna, Gina Alban-Martinez and H. John Barnes	<b>Production of Monoclonal Antibodies Against Avian <i>Escherichia coli</i> <i>Iss</i></b> Lynne, Aaron, Shelley Horne, Steven Foley and Lisa Nolan
5:00	Adjourn	Adjourn
	Wednesday, July 17, 2002 Session A	Wednesday, July 17, 2002 Session B
	<b>Moderator:</b>	<b>Moderator:</b>
8:00	<b>Adaptation of virulent serotype I Infectious Bursal Disease Virus to avian macrophages</b> Abbassi, Hayet, Heather Gerbyshak-Szudy, Hung Yeh and Jagdev Sharma	<b>Chick Length Uniformity Profiles as a Field Measurement of Chick Quality?</b> Hill, Donna
8:15	<b>A possible new serotype 1 variant of infectious bursal disease virus from Korea</b> Kim, Sun, Hyuk Kwon, Sun Cho, Eun Lee and Min Kim	<b>Innovations of in ovo technology</b> Quiroz, Marco, Rafael Correa, William Samson and Erich Bevenssee
8:30	<b>Identification of a variant IBDV strain that behaves clinically as a classic using histopathology, PCR, and monoclonal antibodies in commercial broilers in Peru</b> Contreras, Manual, Luis Alzamora, Stephanie Mengel Whereat and Fernandez Rafael	<b>Comparison of In Ovo and Post-hatch Injection of Gentamicin Sulfate in Turkey Poults</b> Rives, David
8:45	<b>Mild, intermediate and virulent strains of Infectious Bursal Disease Virus differ in their ability to modulate the immune system</b> Rautenschlein, Silke, Huang-Yueh Yeh and Jagdev Sharma	<b>Experiences Raising Commercial Chickens without the Use of Conventional Antimicrobial Interventions</b> Klopp, Spangler

	Wednesday, July 17, 2002 <i>cont'd.</i> Session A	Wednesday, July 17, 2002 <i>cont'd.</i> Session B
9:00	<b>The effect of subclinical Infectious Bursal Disease Virus on iron, copper, and zinc levels in organs during the acute phase response</b> Blackmore, Craig, Patricia Wakenell, Kirk Klasing and Donald Link	<b>Drug Free Chemical Free Broiler Production – Is It Commercially Feasible?</b> Bahl, Arun and Nino Sorgente
9:15	<b>Investigation of Sub-clinical Infectious Bursal Disease in Broiler Farms with a History of Production and Disease Problems</b> Tablante, Nathaniel, Daniel Bautista, Fidelis Hegngi, Conrad Pope and Chinta Lamichhane	<b>The Effects of Poultry Production Units on the Air Quality of Local Environments</b> Davis, Meredith and Teresa Morishita
	<b>Break</b> 9:30 AM – 10:00 AM	<b>Break</b> 9:30 AM – 9:45 AM
	<b>Moderator:</b>	<b>Moderator:</b>
10:00	<b>Analysis of an Infectious Bursal Disease gene expressed by a Herpesvirus vector</b> Moore, Kristi, Yoshinari Tsuzaki, David Hout, Motoyuki Esaki and Joan Leonard	<b>Molecular biological tools for routine diagnosis and further characterization of avian poxviruses</b> Hafez, Hafez, Torge Hoffman and D. Luschow
10:15	<b>Recombinant, attenuated IBDV vaccine protects against classic and variant strains</b> Liu, Meihong, Meggin Brandt, Yi Liu, Gerard Edwards and Vikram Vakharia	<b>Diagnosis and Characterization of Avianpox Viruses from Wild Birds</b> Tripathy, Deoki and T-J Kim
10:30	<b>DNA vaccination against classical and variant Infectious Bursal Disease virus in chickens</b> Wu, Ching Ching, Tsang Long Lin, Hua Chen Chang, Ming Klin Hsieh	<b>A review of <i>Eimeria mivati</i> – Edgar and Seibold</b> Fitz-Coy, Steve, Mike Eckman and Robert Brewer
10:45	<b>Site-Directed Mutagenesis of <i>in vitro</i> Expressed IBV Spike Glycoproteins in an Avian Cell Line</b> Wade, Emma, Mark Jackwood and Deborah Hilt	<b>DNA Vaccination strategy against avian coccidiosis</b> Lillehoj, Hyun and Wongi Min
11:00	<b>Recognition of a unique, widely-disseminated infectious bronchitis virus genotype in North America; Implications for understanding spread of the disease</b> Gelb, Jr., Jack, Brian Ladman, Peter Woolcock, Frederic Hoerr, Kalen Cookson, Darrell Trampel, Andre Ziegler and Brian Binnington	<b>A comparison of Coccivac-B to an Anticoccidial Program on Pigmentation of Broiler Chickens</b> Mathis, Greg and Charles Broussard
11:15	<b>Infectious Bronchitis Virus – the “Cal 99” strain</b> Woolcock, Peter, Sharon Hietala, Liu-Mei Shih and Michael McFarland	<b>Multifocal necrotic duodenitis: a novel disease of commercial laying hens</b> Wallner-Pendleton, Eva, Eric Gingerich, Robert Norton, Patricia Dunn and David Kradel
11:30	<b><i>In-Ovo</i> Vaccination for IBV Using DNA Vaccine. A Preliminary Study.</b> Khan, Mazhar, Jaroslaw Fabis and Ted Grishick	<b>Enteritis of clostridial etiology in cage layers with high fly population</b> Dhillon, A. Singh, L. H. Lauerman, Dennis Schaberg, Daina Bandli and Sylvia Johnson
11:45	<b>Adjourn</b>	<b>Adjourn</b>

## POSTER PROGRAM

1. **The impact of the 1999-2001 Italian Avian influenza epidemic on the diagnostic laboratory**  
Capua, Ilaria and Marilena Campisi Lo Schiavo
2. **A Plasmid-based reverse genetics system for avian influenza virus**  
Lee, Change-Won and David Suarez
3. **Safety of Ketamine – Xylazine Mixture for Anaesthesia of some free living and caged birds**  
Nassef, Mahmoud and Salah Mousa
4. **Evaluation of Growth Enhancement Antibiotics and Possible Alternatives in Broiler Diets**  
Cherry, Tim and Copie Roberts
5. **Tracking the Claim “If there’s one sick bird the Entire Flock is Treated”**  
Gonder, Eric
6. **Comparison of Antimicrobial Susceptibility Patterns in the same E. coli from field cases taken from blood agar plates versus MacConkey agar plates**  
Luna, G. Lynne, Danny Magee, Sue Ann Hubbard, C. Reagan Sadler, Tim Cummings and Melissa Thornton
7. **Vertical Transmission of Campylobacter Species in Commercial Broiler Chickens**  
Idris, Umelaalim, Margie Lee, Susan Sanchez, Charles Hofacre and Harold Barnhart
8. **A Real-Time Quantitative PCR (qPCR)-Based Serum Neutralization Test for Detection and Titration of Neutralizing Antibodies to Chicken Anemia Virus (CAV)**  
van Santen, Vicky, Bernhard Kaltenboeck, Kenneth Macklin and Robert Norton
9. **Generation of infectious clones of chicken anemia virus (CAV) directly from clinical specimens by PCR**  
van Santen, Vicky
10. **Pathological Manifestations of Pasteurella Multocida Infection in Broiler Chickens**  
Aly, Mohammed and Salah Mousa
11. **Dietary modulation of host protective immunity against avian coccidiosis**  
Lillehoj, Hyun, Rami Dalloul and John Doerr
12. **Coronavirus in Turkeys; are they Turkey Coronavirus or Infectious Bronchitis Virus**  
Jackwood, Mark, Mary Pantin-Jackwood and Deborah Hilt
13. **Complement Resistance, as determined by Flow Cytometry, of Avian *Escherichia coli* Isolates**  
Nolan, Lisa, Catherine Giddings and Shelley Horne
14. **Development of a Multiplex PCR Protocol to Discern Virulent from Avirulent Avian *Escherichia coli***  
Skyberg, Jerod, Shelley Horne, Catherine Giddings, Curt Doetkott, Richard Wooley, Penelope Gibbs and Lisa Nolan
15. **Educating Service Technicians through Poultry Workshops**  
Hubbard, Sue and Danny Magee
16. **A Web-based Biosecurity Training Course for the Poultry Industry**  
Tablante, Nathaniel and Mark Varner
17. **Characterization of Anaerobic Bacteria Associated with Duodenal Ulcers in Commercial Laying Hens**  
Norton, Robert, Eva Wallner-Pendleton, Eric Gingerich, Paul Patterson, David Kradel and Patricia Dunn
18. **The effects of *Tetratrichomonas gallinarum* infection in turkeys**  
Bermudez, Alex and Yvette Broomhead

19. **Role of CPD-Photolyase, and Acidic-Type Inclusion Body Protein in Maintaining the Infectivity and Environmental Persistence of Fowlpox Virus**  
Srinivasan, Viswanathan, William Schnitzlein, Tae-Joong Kim and Deoki Tripathy
20. **Genetic Approaches Toward Characterization of Avian Poxviruses**  
Kim, Tae-Joong, William Schnitzlein and Deoki Tripathy
21. **Evaluation of a recombinant vaccine for protection against fowlpox in chickens**  
Singh, Pratik, William Schnitzlein and Deoki Tripathy
22. **Field Evaluation of a Novel Bivalent Vaccine against Infectious Bursal Disease (IBD) and Newcastle Disease (ND) by mixing viruses and antibodies contained in hyperimmune egg yolk**  
Mousa, Salah
23. **Identification of Multiple Genetic Infectious Bursal Disease Virus Populations (Quasispecies) in Commercial Vaccines Following Plaque Purification**  
Spalding, Bethany and Daral Jackwood
24. **Genetic changes of infectious bursal disease virus passaged in Vero cells**  
Kwon, Hyuk Moo and Soo Joung Kim
25. **Proventriculitis in Broiler Chickens: Effects of Immunosuppression**  
Pantin-Jackwood, Mary and Tom Brown
26. **Genetic variations of avian infectious bronchitis virus isolates in Japan**  
Lin, Zhifeng
27. **Comparison of the molecular typing of infectious bronchitis virus variants by the restriction fragment length polymorphism assay and phylogenetic analysis of S1 protein gene**  
Li, Lanqing, Michael Luther and Frederic Hoerr
28. **Gene 5 in turkey coronavirus closely related to that of avian infectious bronchitis virus**  
Lin, Tsang Long, Ching Ching Wu, Chien Chang Loa, Aydemir Akin, Herbert Thacker, Thomas Bryan and Tom Hooper
29. **Protection and Productive Parameters in Broilers Using Two Infectious Bronchitis Commercial Vaccines**  
Icochea, Eliana, Monica Alba, Rocio Turin, Rosa Gonzalez and Branco Alva
30. **Evaluation of the Possible Immunological Function of the Chicken Crop (Ingluvies)**  
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