



AAAP WINTER NEWSLETTER

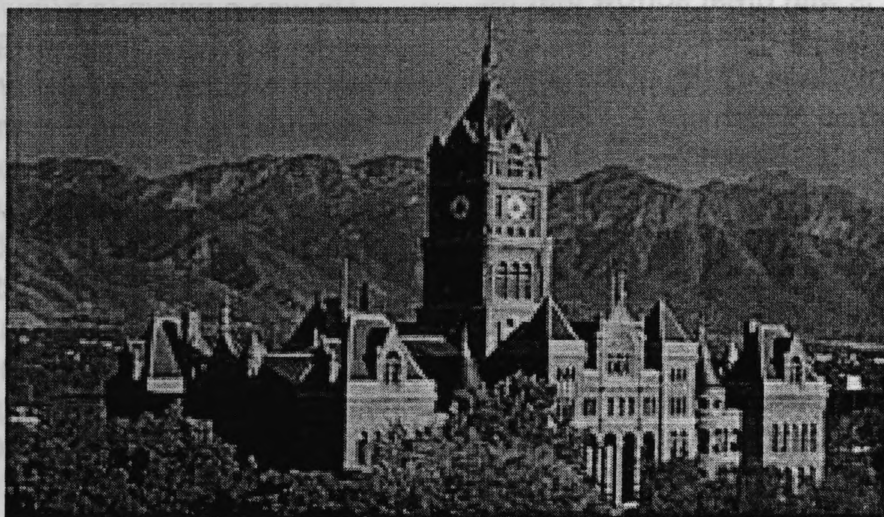
February 2000

AAAP Annual Meeting to be held July 22-26 in Salt Lake City

We have selected the **DoubleTree Hotel** for the AAAP Headquarters. The AAAP committee meetings, the AAAP Awards Luncheon, AAAP Board of Directors Meetings and the ACPV Exam will be held in the DoubleTree. The AAAP Symposium "Molecular Identification and Epidemiology of Avian Pathogens", AVMA/AAAP-Avian Medicine Scientific Program and Poster session will be held in the Convention Center.

The AVMA Registration and Housing forms are attached. Please send the housing form in early so that you will be guaranteed a room in your hotel of choice.

The **Preliminary Program** for the Symposium and AVMA/AAAP Avian Medicine Scientific program is enclosed. The program begins with the symposium on Sunday, July 23 and the platform papers on Monday, July 24 and goes through Wednesday noon.



The AAAP Board of Directors will meet all day on Friday, July 21 and Saturday, July 22 and again on Wednesday morning, July 26. All members are welcome to attend. Anyone with agenda items for the Board meeting should contact the AAAP Business Office.

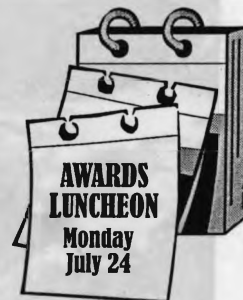
AAAP Business Office
382 West Street Road
Kennett Square, PA 19348
Phone (610) 444-4282 or
(610) 444-5800 ext. 2257
Fax (610) 925-8106
E-mail aaap@vet.upenn.edu
Website www.vet.upenn.edu/aaap/

FYI

On June 1, 2000 the DoubleTree Hotel will become the Hilton. All phone numbers will stay the same. We recommend that you get your reservation early to be assured a room in your hotel of choice.

MARK YOUR CALENDARS!

The AAAP Awards Luncheon will be held on Monday, July 24, 2000 at the DoubleTree Hotel. Ticket order forms will be sent soon.





A SAD NOTE

Dr. Jerry Rountree

It is with great sorrow that we report the passing of Dr. Jerry Rountree, DVM, at the age of 70 on November 3, 1999.

Dr. Rountree received his DVM from Michigan State University in 1952 and advanced degrees from the University of Wisconsin in 1958. From 1952 to 1955 he was an associate professor at the University of Maine in Orono. In 1958 he became vice president in charge of research for Lipman Poultry Co. From 1978 to 1994 he was a private consultant for the poultry industry. Dr. Rountree dedicated his career toward poultry health and management, stressing immunology.

Dr. Rountree will be greatly missed by all.



Dr. S. Allen Edgar

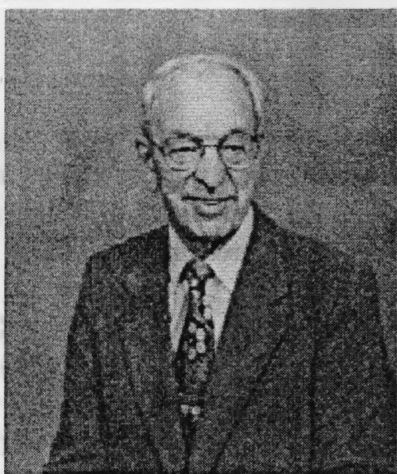
Dr. S. Allen Edgar died Thursday, January 27, 2000, at East Alabama Medical Center after a long illness. He was born February 6, 1916, in Olathe, Kansas.

He was a native of Kansas, a World War II Army Veteran and a resident of Auburn since 1947. He received his B.S. degree from Sterling College, Master's degree from Kansas State University and his Ph.D. from the University of Wisconsin. He also received an honorary doctorate from Sterling College. He was a professor in the Auburn University Poultry Science Department for more than 45 years. He was a true pioneer of Poultry disease research and known by poultry vaccine manufacturers as a true "giant" in the area of poultry vaccine development. During his tenure at Auburn, he developed several important vaccines, including the first vaccine against infectious bursal disease virus of chickens and the first vaccine against coccidiosis of chickens and turkeys. He also discovered and named a new species of coccidia of chickens and helped many companies in their development and testing of anticoccidial drugs.

He served as major professor for numerous graduate students, who went on to long and productive careers in academia and industry. He has received numerous awards including the USP+A :Workhorse of the Year, the Alabama Poultry Industry Hall of Fame, the Auburn University's College of Agriculture Alumni Award, and Professor Emeritus at Auburn. Dr. Edgar was an active member of Auburn First Presbyterian Church, having served as an elder, choir member, Sunday school teacher and a youth leader of the Pioneers. He was known as a kind man, serving his community with integrity and honor. Dr. Edgar was dedicated to the Poultry Industry and Auburn University until his untimely death.

He is survived by his wife of 61 years, Phyllis Wells Edgar of Auburn; two daughters, Susan Edgar Giambrone of Auburn and Edna Flohr of French Polynesia; a son, R. Philip Edgar of Vestavia Hills; a brother, Paul P. Edgar of Tucson, Arizona; nine grand-children; and many beloved nieces and nephews.

The family requests that, in lieu of flowers, memorial donations be directed to: Auburn University, The Auburn Foundation, Alumni Department, Betty DeMent, Auburn, AL 36830.



Donald Victor Zander 1916-1999

It is with great sadness that we report that Don Zander passed away quietly after complications from a fall on December 29, 1999. Don was born February 16, 1916 in Washington State and returned there in 1957 to work for H & N International (Heisdorf & Nelson, Inc.) as Director of Poultry Health Research and Services, a position he held until his retirement in 1989.

In the interim after high school graduation, he worked in California on a poultry ranch "sexing" chickens to help put himself through the University of California at Berkeley where he majored in poultry husbandry, earned a degree in nutrition at Colorado State University and started work on his DVM.

While at Colorado State University he met a young zoology teacher, Verna Marie Mace, and they were married in 1946. Dr. Zander spent 3 years in the army and in late 1946 Verna joined him in Germany for a year, after which they returned to CSU, Verna to teach and Don to finish his DVM degree.

After receiving his DVM in 1950, he joined the new University of California at Davis Veterinary School and earned a PhD while on staff and faculty.

Dr. Zander's great contributions came from his experience but especially because of his ingenuity and his practicality. For example, in 1951-52, a "new disease" hit California laying flocks and was finally diagnosed as infectious bronchitis. California had no capacity at that time for infectious bronchitis virus neutralization but it was necessary to determine which flocks were susceptible and which were resistant as a result of an earlier outbreak. Don devised a challenge plan and with his co-workers devised a practical plan of immunization by "willful infection" in California layers.

In 1955 he was invited to Redmond, WA to join H&N International, a poultry breeding firm with international distribution. His assignment was to plan, staff, and direct their new Health Research Laboratory in Woodinville. Under his leadership much was accomplished. In addition to diagnosis and care of H&N breeding stock, pioneer research was done on several poultry diseases. Don traveled extensively throughout the free world, and helped establish research and diagnostic poultry laboratories (e.g. Germany, Brazil, Japan). He was able to inspire a number of young veterinarians, both foreign and U.S., who visited the H&N lab to work under his tutelage.

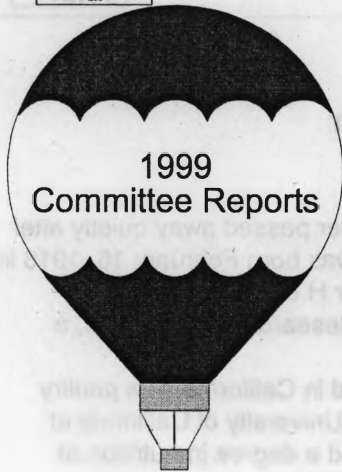
A number of scientific papers came out of the lab and Don was a contributor to the textbook "Diseases of Poultry". He was a life member and past president of both the Western Poultry Disease Conference and the American Association of Avian Pathologists. His work was recognized by several awards such as the Distinguished Service Award from Washington Poultry Industries Association in 1982, Poultry Scientist of the Year from Pacific Egg and Poultry Association in 1988, and the C.A. Bottorff Award in 1990 from the American Association of Avian Pathologists for the "Diagnostic & technical service veterinarian who has made significant contributions as an avian pathologist to poultry health programs in North America". His work ethic was best explained in the dedication to Don of its 45th meeting and Proceedings of the Western Poultry Disease Conference at Cancun, Mexico, in 1996 "for his many years of devoted service to poultry medicine, WPDC, and the industry. A genius for the practical application of basic knowledge, enthusiastically sharing ideas and ideals, solving problems and inspiring others."

After retiring in 1989 Don and Verna traveled extensively, including missions for Volunteers for Overseas Cooperative Agencies in Bolivia and Uganda.

Don's enthusiasm and energy did not stop at the lab door. He was a loving and caring father to his three children - Linda, David, and Arnold, always respecting them and their ideas while guiding them. He adored his grandchildren - Erin, Nathan, Justin, Rebecca, and Donald. He has the District Award of Merit from the Boy Scouts of America (oh, those backpack trips! !) and the Kiwanis Service Award. He was an active participant in the Bothell United Methodist Church in leadership roles.

He was modest, had a fine sense of humor, firm convictions and was both an inspiration and an incomparable preceptor to literally hundreds of young people all over the world. He was fun to be around - we shall miss him.

The family suggests that memorial contributions be made to the AAAP Foundation (to further strengthen the preceptorship program) or to the charity of choice.



Respiratory Diseases Committee

Jack King, Chair

The AAAP Respiratory Diseases Committee met on Tuesday, July 13 at 5:30 p.m. during the AVMA meeting in New Orleans. Twenty two committee members and visitors heard an invited presentation by Antonio Zanella, University of Milan, on "Recent outbreaks of avian influenza in Italy." Fred Hoerr presented results of typing infectious bronchitis virus isolates by RT-PCR/RFLP. The isolates represented accessions from 1995-1999 and were mostly from Alabama. Jack King reviewed the changes in the definition of Newcastle disease approved by OIE in May 1999. The new definition of ND is less subjective but more stringent than the old definition. Trade guidelines are to be established and possibly revisions of the definition will occur before the standards are implemented. T.J. Myers provided information on the status of plans for avian influenza serology in a voluntary slaughter blood surveillance program to qualify for export of poultry meat to Mexico and on meetings concerning the live bird market system. Information on the serology program and live bird market meetings is available from him.

Animal Welfare and Management Committee

M.A. Hammarlund, Chair

The 1999 AAAP Symposium on Poultry Management and Production was the result of several years of planning. The speakers were from AAAP, Poultry Science, England and Canada. The presentations were timely and emphasized the need for improved management practices.

Dr. Mark Pattison from England described how the consumer wants production information and assurance that the best practices are followed. The U.K. Government has set up the Farm Animal Welfare Council (FAWC) which sets standards and advises Agriculture Ministers on changes that are needed in animal welfare laws. Some of the FAWC manuals were given to use as needed.

During the AVMA meeting the board of directors met to consider a resolution to discontinue beak trimming. Dr. Gregg Cutler provided information to the board of directors and the resolution was defeated.

Dr. Charles Beard, with the U.S. Poultry Association, has agreed to be a spokesperson, if needed, for poultry welfare.

Steven Kopperud, President, Animal Industry Foundation, is also available, if needed to do media presentations.

It is hoped that a report concerning the status of Poultry Welfare and Management can be given at various scientific meetings. The first one is planned for the Western Poultry Disease Conference in March 2000 in Sacramento.

CONGRATULATIONS

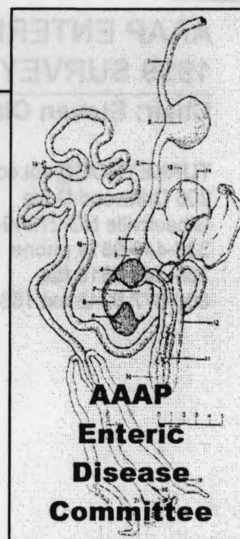
The officers of SCAD would like to congratulate Valerie Simmons, Southeast Poultry Research Lab (best oral presentation) and Kevin Downs, Auburn University (best poster presentation) who won the C.S. Edson Award for Research Excellence given at the 41st Annual Meeting of the Southern Conference on Avian Diseases, January 17 & 18, 2000.



AAAP ENTERIC DISEASE COMMITTEE 1999 SURVEY

Chair: Steven Clark

TURKEYDOC@aol.com
206 Driftwood Drive
Gibsonville NC 27249-3312 USA
336-449-9814 phone
336-449-5518 fax
800-677-6243 ext 1584 voicemail



As chairman of the AAAP ENTERIC DISEASE COMMITTEE, I am pleased to provide you with a copy of the 1999 Survey Report. This will also be given to the AAAP Board at the annual meeting in July. I appreciate those that made comments and suggestions.

A total of 124 questionnaires were distributed to all AAAP Enteric Disease Committee members and to select US/Canada poultry industry field veterinarians. A total of 62 (50%) individuals responded to the survey. Not all of the questionnaires were filled out in its entirety. Of 61 responding, 4 (7%) were employed in academia, 3 (5%) in diagnostic laboratory, 7 (11%) in allied industry, 41 (66%) as field veterinarians and 6 (10%) as "other". Of the 41 field veterinarians, 17 (41%) work with broilers, 19 (46%) with turkeys, 4 (10%) with both broilers and turkeys, and 1 (2%) with broilers/turkeys/layers. Of the 79 species-surveys returned, 35 (48%) were for broilers, 35 (48%) were for turkeys, 6 (8%) were for layers, and 3 (4%) were for "other" (ratites, etc.). Forty-eight (76%) said they are involved with food safety issues. Campylobacter, listeria and salmonella were all equally ranked in regards to their relative importance to food safety. This reflects a summary of all responses for questions # 1-6.

Questions # 7-16 (the remainder of the survey) were more species-related. The majority of the incomplete responses came from this section and from "non-field veterinarian" responders. Considering the responses, we will give a brief summary (Table 1-4) of field veterinarian responses for broilers ($n = 22$) and turkeys ($n = 24$) only. The majority of field veterinarians use (or recommend the use) of competitive exclusion products, antibiotics via the drinking water (mostly neomycin) and growth promoters (mostly bacitracin) in the feed for enteritis (Table 1). For all field veterinarians, cost per unit of production (Table 2) and performance (Table 3) were of most importance. In broilers, coccidiosis was the most important enteric disease issue (Table 4). For turkey field veterinarian responses, ranking enteric disease was spread evenly among many causes, including coccidiosis, protozoa, worms, HE, coronavirus, salmonella, viral, PEMS and feed passage (Table 4).

I hope this summary is sufficient and that you have found this information informative. If you have any comments or need further details of the survey results, please contact me. Anyone interested in becoming a member of the Enteric Disease Committee or in possibly administering a survey next year (I am still not sure if we need to do this annually or not), please contact me. Thank you for your interest.

Sincerely,

Steven Clark, DVM, Diplomate ACPV
Chairman of the AAAP Enteric Disease Committee



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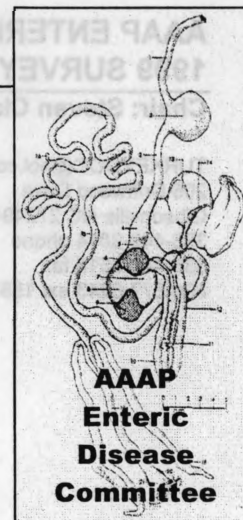


Table 1. Summary of broiler (n = 22) and turkey (n = 24) field veterinarian survey responses. Indicates the use of a product to treat, prevent and/or control enteritis.

Product	Broiler		Turkey	
	n=	%	n=	%
Use or recommend the use of competitive exclusion (CE).	13	59%	17	71%
Use or recommend the use of prebiotics.	2	9%	5	21%
Antibiotics.	21	95%	24	100%
Growth promoters.	18	82%	16	67%
Vaccines.	5	23%	19	79%
Bacitracin in water.	16	73%	9	38%
Neomycin in water.	13	59%	20	83%
Lincomycin in water.	7	32%	11	46%
Chlortetracycline in feed.	4	18%	5	21%
Chlortetracycline in water.	4	18%	6	25%
Oxytetracycline in feed.	5	23%	3	13%
Oxytetracycline in water.	4	18%	7	29%
Tetracycline in feed.	1	5%	0	0%
Tetracycline in water.	1	5%	4	17%
Bacitracin in feed.	21	95%	15	63%
Bambermycins in feed.	13	59%	4	17%
Lincomycin in feed.	11	50%	1	4%
Nitrasone in feed.	2	9%	4	17%
Roxarsone (3-Nitro) in water.	6	27%	8	33%
Roxarsone (4-Nitro) in feed.	16	73%	1	4%
Virginiamycin in feed.	18	82%	10	42%
Coronavirus vaccine in turkeys.	n/a		0	0%
HE vaccine in turkeys.	n/a		20	83%
Enterovirus vaccine.	0	0%	0	0%
Reovirus vaccine.	6	27%	2	8%
Supplemental vitamins in feed.	6	27%	4	17%
Supplemental vitamins in water.	9	41%	12	50%
CE or prebiotic.	7	32%	10	42%
Diet (i.e., formulation) change.	6	27%	7	29%



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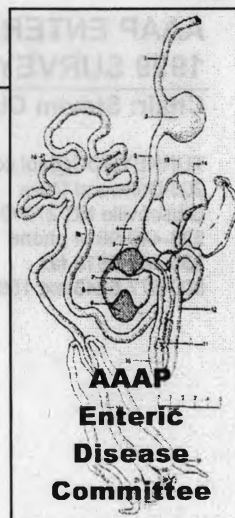


Table 2. Summary of broiler (n = 22) and turkey (n = 24) field veterinarian survey responses. Average ranking score (1 = most important, to 13 = least important) in order of importance for business.

	Broiler	Turkey
Ammonia	8.1	7.2
Carcass yield	4.0	4.8
Coccidiosis	5.7	6.8
Feed conversion	2.9	2.8
Cost per unit of production (meat, eggs, etc.)	1.3	1.2
Enteric diseases	7.1	4.9
Helminthic diseases	11.0	8.5
Methane	12.1	11.5
Nitrogen	11.3	10.7
Phosphate	9.8	10.1
Reproduction	7.2	6.8
Respiratory disease	5.2	4.3
Visual appearance (of final product)	5.6	6.5

Table 3. Summary of broiler (n = 22) and turkey (n = 24) field veterinarian survey responses. Average ranking score (1 = most important, to 6 = least important) in order of importance for business.

	Broiler	Turkey
Environment	5.7	4.7
Enteric disease	5.1	4.0
Food quality	3.3	4.0
Food safety	2.8	3.3
Performance	2.1	1.6
Prevention	3.7	3.0
Respiratory disease	4.7	4.3
Therapy	7.1	6.1



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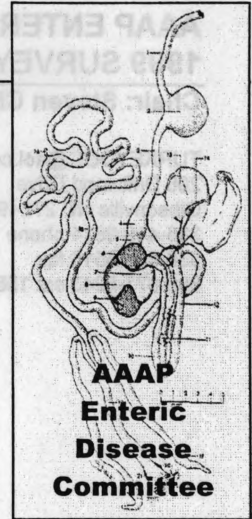


Table 4. Summary of broiler (n = 22) and turkey (n = 24) field veterinarian survey responses. Average ranking score (1 = not important; 2 = mild; 3 = moderate; 4 = severe importance; n/a = not applicable) for enteric disease issues.

	Broiler	Turkey
Coccidiosis	3.4	2.2
Protozoa (ie, trichomonas, cochlosoma)	1.4	2.3
Tape worms	1.5	1.2
Round worms	1.7	2.4
Cryptosporidiosis (enteric)	1.4	1.5
Hemorrhagic enteritis (HE, turkeys)	n/a	2.3
Clostridia	2.9	1.8
Coronaviral enteritis (TCV, turkey)	n/a	2.4
Campylobacter	2.8	1.7
Salmonella	2.9	2.5
Viral enteritis of unknown etiology	2.3	2.5
PEMS (turkeys)	n/a	2.3
Feed passage	2.8	2.2
other	4 (n = 2)	2.5 (n = 7)



**American College of Poultry Veterinarians
Influence of Environmental Factors on Poultry Health Workshop
Capitol Plaza Holiday Inn - Sacramento California
March 4, 2000**

Dr. Hugo A. Medina, Workshop Organizer

Tentative Program

- 7:00 AM Continental Breakfast
- 7:20 AM Welcome, Opening Remarks
- 7:30 AM **M. Roger Fedde Ph.D.** Department of Anatomy and Physiology, Kansas State University
"Understanding the Structure and Function of the Respiratory System: Application to Some Common Avian Diseases".
Questions / Answers / Comments
- 8:25 AM **Berry Lott Ph.D.** USDA/SCPRU University of Mississippi
"Effects of Air Velocity in Broiler Performance".
Questions / Answers / Comments
- 9:05 AM **Ralph Ernest, Ph.D.** Extension Poultry of Department of Animal Science, University of California.
"Ventilation of Commercial Laying Houses".
Questions / Answers / Comments
- 10:00 AM Break
- 10:15 AM **Michael Czarick III, Eng.** Extension Engineer Dept. of Biological & Agricultural Engineering, The Univ. of Georgia.
"Controlling the Environment in Poultry Housing".
Questions / Answers / Comments
- 11:15 AM **Mike Lacy Ph.D.** Poultry Extension of Dept. of Poultry Science, The University of Georgia.
"Lighting Programs for Poultry".
Questions / Answers / Comments
- 12:30 PM Lunch
- 1:45 PM **Thomas Carter Ph.D.** Professor and Extension Poultry Specialist. North Carolina State University.
"Drinking Water Quality for Poultry".
Questions / Answers / Comments
- 2:25 PM **Doug Grieves DVM.** Hy-Line International. Dallas Center, Iowa.
"Environmental Considerations for Commercial Egg-type Layers and Breeders".
Questions / Answers / Comments
- 3:15 PM Break
- 3:30 PM **William Pierson DVM.** Professor College of Veterinary Medicine VA-MD Reg. College, VPI&SU Blacksburg, VA.
"How Multiple Factors Influence the Outcome of Disease Challenge in Turkeys".
Questions / Answers / Comments
- 4:30 PM **Marshall Putnam DVM.** Director of Poultry Health, Wayne Poultry, Inc. Atlanta, Georgia.
"Impact of Management on Disease."
Questions / Answers / Comments

Hugo Medina DVM. Comments and Closing Remarks

Registration Fees (U.S. Dollars) \$125.00 (By 2/18/2000) \$150.00 (After 2/18/2000)

Registration includes Full Day Workshop; CE Credits; Diploma; Workshop Proceedings; Continental breakfast, 2 Coffee breaks and Lunch.

Four Ways to Register

Register on-line: Visit: conferences.ucdavis.edu (credit card payment only); Register By Phone. Call: (530) 757-3331 (M-F; 9 AM to 4 PM; Pacific Time credit card payment only); Register By Fax. Fax: (530) 757-7943 send complete information and credit card number for payment only; Register By Mail Complete 49th Western Poultry Disease Form on space for ACPV Workshop and payment to: Conference and Events Services (WPDC / ACPV), 1 Shield Avenue, University of California, Davis, CA 95616.

Workshop Chair Organizer. Dr. Hugo A. Medina, 2105 Bridgewood Way, Modesto, CA 95355. Phone: 209.527.3210. Email: hmedina@ainet.com



American College of Poultry Veterinarians Case Studies - Meeting Announcement

Drs. Louise Dufour-Zavala, John McCarty, and Bruce Stewart-Brown
Workshop Organizers

On October 17, 2000 the ACPV is sponsoring a workshop featuring Case Studies in Chickens. This workshop will be in Ocean City, MD at the Sheraton Hotel. This will be a daylong event that is exclusively devoted to Clinical Case Studies. These Clinical Case Studies can be on any subject associated with Chickens. The focus is to be on current field problems. These do not have to be unusual or rare. If you have worked up a field problem in the past few years that you think others would find informative or interesting – please consider submitting a title. All aspects of the Case Studies do not have to be clean and proven. They don't have to be publishable Case Reports. This is meant to be an opportunity for Clinical Veterinarians to discuss field cases in an open forum.

Titles are due by July 1, 2000. The case study presentations are to be 20 minutes long with 10 minutes discussion. A document with these Case Studies will be sent out following the meeting.

Case Studies generally, but not always, include most of the following sections:

1. Introduction
2. History or Presentation of the Case
3. Incidence and Prevalence
4. Clinical Description – clinical signs, performance parameters affected, laboratory submissions and findings
5. Post mortem lesions, if any
6. Diagnosis
7. Therapy
8. Resolution, if any
9. Economic effects, if any
10. Prevention suggestions, if any
11. Conclusion and Summary

Case Study Titles can be submitted to Dr. Bruce Stewart-Brown using the fax number 410-543-3742 or submitted via email at bruce.stewart-brown@perdue.com. Forms will be soon available.

Questions on the meeting or Case Study format can be directed to the organizing committee:

1. Dr. Louise Dufour-Zavala – 770-535-5996
2. Dr. John McCarty - 954-646-8996
3. Dr. Bruce Stewart-Brown – 410-543-3783





AMERICAN ASSOCIATION OF AVIAN PATHOLOGISTS
SCHEDULE OF EVENTS
DOUBLETREE HOTEL, SALT LAKE CITY, UTAH
Room Assignments to be announced

FRIDAY, JULY 21

8:00 AM-7:00 PM

Board of Directors Meeting

SATURDAY, JULY 22

8:00 AM-7:00 PM

Board of Directors Meeting

9:00 AM-6:30 PM

ACPV Exam

SUNDAY, JULY 23

7:00 AM-8:00 AM

Awards Committee

7:00 AM-8:30 AM

Toxic, Infectious, Miscellaneous, & Emerging
Diseases Committee

7:00 AM-8:00 AM

AAAP/AVMA Liaison Committee

7:30 AM-8:30 AM

Georgia MAM Alumni Group

7:30 AM-5:30 PM

Poster Session

8:00 AM-5:00 PM

Convention CenterMolecular Identification & Epidemiology of Avian
Pathogens Symposium

12:15 PM-1:15 PM

Convention Center

Avian Disease Manual Editorial Committee

12:15 PM-1:15 PM

Membership Committee

3:00 PM-7:00 PM

ACPV Board Meeting

5:00 PM-7:00 PM

Diseases of Poultry Editorial Board

5:30 PM-6:30 PM

Biotechnology Committee

MONDAY, JULY 24

7:00 AM-8:00 AM

Veterinary Licensing Committee

7:00 AM-8:00 AM

Avian Diseases Editorial Board

7:00 AM-8:00 AM

Preceptorship Committee Meeting

7:00 AM-8:00 AM

Epidemiology Committee

**MONDAY, JULY 24 cont.**

7:00 AM-8:30 AM

History Committee

7:30 AM-5:30 PM

Poster Session
Convention Center

8:00 AM-5:00 PM

Scientific Program Session A
Convention Center

8:00 AM-5:00 PM

Scientific Program Session B
Convention Center

Noon-2:00 PM

AAAP Awards Luncheon

2:00 PM-6:00 PM

ACPV Board Meeting

6:00 PM-8:00 PM

Biologics Committee

TUESDAY, JULY 25

7:00 AM-8:00 AM

Animal Welfare and Management Committee

7:00 AM-8:00 AM

Drugs and Therapeutics Committee

7:00 AM-9:00 AM

ACPV Reception

7:30 AM-5:30 PM

Poster Session
Convention Center
Scientific Program Session A
Convention Center

8:00 AM-5:00 PM

Scientific Program Session B
Convention Center

8:00 AM-5:00 PM

10:30 AM-12:00 noon

AAAP BUSINESS MEETING
Convention Center

12:00 PM-1:30 PM

California Poultry Group

5:00 PM-6:00 PM

Electronic Information Committee

5:00 PM-7:00 PM

Long Range Planning Committee

5:30 PM-7:00 PM

Respiratory Diseases Committee

6:00 PM-7:00 PM

Tumor Virus Committee

WEDNESDAY, JULY 14

7:00 AM-11:00 AM

Board of Directors Meeting

7:30 AM-Noon

Poster Session
Convention Center

8:00 AM-Noon

Scientific Program Session A
Convention Center

8:00 AM-Noon

Scientific Program Session B
Convention Center



Preliminary Symposium Program
Molecular Identification and Epidemiology of Avian Pathogens
Sunday, July 23, 2000

8:00 am	Opening remarks and program Overview	Daral J. Jackwood
	Moderator: Hyun S. Lillehoj	
	<i>Coccidiosis</i>	
8:10 am	Molecular approaches for the differential diagnosis of <i>Eimeria</i> species	Harry Danforth
	Moderator: Lloyd H. Lauerma	
	<i>Mycoplasma</i>	
8:30 am	Avian <i>Mycoplasma</i> strain identification by random amplification of polymorphic DNA (RAPD)	David Ley
8:50 am	Pathogenic avian <i>Mycoplasma</i> specific PCR and its possible application	Mazhar Khan
9:10 am	Field evaluation of <i>Mycoplasma gallisepticum</i> and <i>Mycoplasma synoviae</i> polymerase chain reaction assays in various national and international laboratories	Lloyd H. Lauerma, Sharon Levisohn, E. Icochea, A. Ramirez, N. Noe, and L. Li
9:30 am	Break	
	Moderator: Mazhar Khan	
	<i>Bacterial Pathogens</i>	
10:00 am	5' Nuclease assay for the detection of avian pathogenic bacteria.	Vivek Kapur
10:20 am	SERE-PCR assay for the genetic fingerprinting of <i>Salmonella enteritidis</i>	K. V. Nagaraja
10:40 am	PCR and ERIC-PCR tests for the detection and differentiation of <i>Hemophilus paragallinarum</i> isolates and serotypes	Mazhar I. Khan.
	Moderator: Robert Silva	
	<i>DNA Viruses</i>	
11:00 am	Infectious laryngotracheitis virus: Can we identify the bad guys	Calvin Keeler
11:20 am	Molecular techniques for the diagnosis of fowlpox virus.	Deoki Tripathy
11:40 am	Practical application of PCR for Marek's disease virus and chicken anemia virus detection	Patricia S. Wakenell
Noon	Lunch	
	Moderator: Mark W. Jackwood	
	<i>RNA Viruses</i>	
1:30 pm	Diagnosis of IBV using molecular techniques	Mark W. Jackwood
1:50 pm	Application of classical and molecular virology techniques to control avian leukosis virus infection	Guillermo Zavala
2:10 pm	The use of nucleotide sequence to predict pathogenicity and for epidemiologic analysis of avian influenza virus outbreaks	David Suarez
2:30 pm	Molecular diagnosis of infectious bursal disease viruses: Practical applications and significance of the results	Daral J. Jackwood
2:50 pm	Break	
	Moderator: Daral J. Jackwood	
	<i>Industry Perspective</i>	
3:20 pm	Commercial applications of molecular diagnostic techniques in veterinary medicine: A decade of experience at IDEXX Laboratories	John Taxter
3:40 pm	Using PCR analysis to monitor IBD status on broiler farms	Kalen Cookson
4:00 pm	Routine application of molecular diagnostics in the poultry diagnostic laboratory	Frederic J. Hoerr
4:20 pm	Practical application of molecular diagnostic techniques in commercial poultry	Bruce Stewart-Brown
4:40 pm	Adjourn	



PRELIMINARY AAAP/AVMA SCIENTIFIC PROGRAM

	Monday, July 24 Session A	Monday, July 24 Session B
	Moderator: Mo Saif	Moderator: David Ley
8:00 am	Virulence and pathotype markers of infectious bursal disease virus reside in the VP2 protein Meggen Brandt & V. Vakharia	<i>Eimeria tenella</i> infection induces local IFN-γ production and intestinal lymphocyte subpopulation changes Hyun Lillehoj & C. Yun
8:15 am	The role of T Cells in infectious bursal disease virus pathogenesis Silke Rautenschlein, H. Yeh & J. Sharma	Anticoccidial sensitivity analysis of mixed coccidial species from coccivac immunized or anticoccidial medicated poultry growout houses Harry Danforth
8:30 am	The role of T cells in infectious bursal disease virus pathogenesis Dong-Woo Lee, H. Kwon, Y. Ahn, J. Yoon & S. Kim	Correlation Between antibody and DNA-PCR of <i>Mycoplasma synoviae</i> from infected pipped embryos Antonio Ramirez, E. Icochea, P. Rios, N. Noe & S. Levisohn
8:45 am	Pathogenicity and molecular characterization of recent Korean isolates of infectious bursal disease virus Alejandro Banda, J. El-Attrache, P. Villegas & M. Ruano	Molecular Typing of <i>Mycoplasma synoviae</i> by pulsed field gel electrophoresis Victoria Leiting, S. Kleven, C. Hudson & J. Maurer
9:00 am	<i>In vitro</i> hemolytic activity of infectious bursal disease virus infected bursal homogenate Dong-Woo Lee & S. Kim	Isolation and characterization of <i>Mycoplasma gallisepticum</i> vaccine-like stains from unvaccinated chickens and turkeys Stanley Kleven, J. Bricker M. Garcia, R. Hein, S. Heins-Miller, N. Kinney, V. Leiting, T. Liu, D. Hey, J. Quinn, K. Rudd, E. Wallner-Pendleton & K. Whitear
9:15 am	Novel ELISA for the detection and differentiation of infectious bursal disease virus (IBDV) from bursal samples Chinta Lamichhane & L. Jerome	Epidemiological studies of <i>Mycoplasma gallisepticum</i> infection in Israel: What we can learn from molecular typing Sharon Levisohn, I. Gerchman, D. Ley, M. Garcia, D. Yogev & Y. Weisman
9:30 am	Infectious bursal disease virus field challenge: Correlation of IBD-XR ELISA titers and virus detection using RT/PCR Daral Jackwood, V. Leathers & J. Smith	The effect of 6/85 strain <i>Mycoplasma gallisepticum</i> on egg production; selected egg and eggshell quality parameters; and egg size distribution in commercial layers Scott Branton, S.M.D. Bearson, S.D. Collier, B.D. Lott, W.R. Maslin & G.T. Pharr
	Break 9:45 AM – 10:15 AM	Break 9:45 AM - 10:15 AM
	Moderator: Pedro Villegas	Moderator: Willie Reed
10:15 am	Protection of chickens against infectious bursal disease by DNA-mediated vaccination Ching Ching Wu, H. Chang & T. Lin	<i>In vitro</i> expression and characterization of attachment proteins of <i>Salmonella enteritidis</i> Mazhar Khan & A. Fadl
10:30 am	Using computer imaging and evaluation to determine protection against infectious bursal disease Eric Lovell, F. Hoerr, D. Jackwood & H. Knoblick	Experimental infection of <i>salmonella enteritidis</i> phage type 4, 5A and 8 from poultry environment origin in one day SPF chicks Bernadette Alisantosa & A. Dhillon
10:45 am	Infectious bursal virus serology interpretation-art or science? Ken Opengart & L. Dufour-Zavala	The relationship between the specific antibody response and the deposition of <i>Salmonella enteritidis</i> in eggs laid by experimentally infected hens Richard Gast & P. Holt
11:00 am	Detection of chicken infectious anemia virus in embryonal tissues Karel Schat, K. Ealey & W. Oswald	Safety and efficacy of a modified live <i>Salmonella typhimurium</i> vaccine in laying hens Sandra Kelly-Aehle, J. Lawrence & R. Curtiss III



	Monday Continued	Monday Continued
11:15 am	Survey of Pathogens in Free-living Avian Pests Teresa Morishita, P. Aye, B. Harr & E. Ley	Oral chicken-egg derived antibody and the prevention of infection and shedding of <i>Salmonella enteritidis</i> in egg-laying chickens Richard Fulton, T. Peters, M. Orth, B. Nersessian & W. Reed
11:30 am	Open space	Prevalence of <i>Salmonella spp.</i> in the crops and cecum of market-aged broilers in commercial processing plant Benjamas Promsopone, T. Morishita, B. Harr & C. Cobbs
	AAAP AWARDS LUNCHEON 11:45 AM- 2:00 PM	AAAP AWARDS LUNCHEON 11:45 AM- 2:00 PM
	Moderator: Ken Opengart	Moderator: L. Dufour-Zavala
2:00 pm	Pathogenesis of IBV with different tissue tropism and identification of genetic sites associated with nephropathogenicity Chang Lee, M. Jackwood & D. Hilt	Dynamics of <i>Salmonella</i> colonization in a commercial quail operation Jean. Sander, C. Hudson, L. Dufour-Zavala, D. Waltman, C. Lobsinger, S. Thayer, R. Otolara & J. Maurer
2:15 pm	Nucleotide sequence comparisons of the Korean isolate infectious bronchitis virus Young-Ki. Ahn, H. Kwon & S. Kim	Respiratory disease in poultry associated with <i>Nisseria</i>-like bacterium Richard Chin
2:30 pm	Characterization of <i>in vitro</i> expressed IBDV spike glycoproteins and virions in avian and non-avian cell lines Emma Wade, C. Lee, M. Jackwood & D. Hilt	Pathological lesions induced by <i>Nisseria</i>-like organisms in turkey Alberto Back, K. Nagaraja, R. Chin, V. Lopes, D. Halvorson & H. Sin
2:45 pm	Major histocompatibility complex class I differences in illness associated with infectious bronchitis virus infection Ellen Collisan, J. Pei, J. Briles, W. Briles & J. Dzielawa	Facial cellulitis associated with <i>Pasteurella multocida</i> in male turkeys Rocio Crespo & R. Chin
3:00 pm	<i>In-ovo</i> recombination of the S1 coding region of an infectious bronchitis virus field isolate Carlos Estevez, J. El-Attrache & P. Villegas	Ulcerative dermatitis in breeder hens Francene Van Sambeek, F. Hoerr & S. Lockaby
	Break 3:15 PM - 3:45 PM	Break 3:15 PM - 3:45 PM
	Moderator: Mark Jackwood	Moderator: Fred Hoerr
3:45 pm	Infectious bronchitis virus isolates made between 1995 and 1999: Characterization and trends Peter Woolcock & M. McFarland	Detection of integrons, genetic elements encoding antibiotic resistance, in <i>Campylobacter Jejuni</i> isolated from food animal and environmental sources Margie Lee, J. Maurer, H. Barnhardt & M. Zimmer
4:00 pm	Characterization of recent avian infectious bronchitis virus from Quebec Amer Silim, R. Smati & M. Marandi	Distribution of <i>Staphylococcal</i> enterotoxin genes among <i>Staphylococcus aureus</i> isolated from poultry and humans John Maurer, A. Hazariwala, Q. Sanders, C. Hudson, C. Hofacre & S. Thayer
4:15 pm	Inhibition of Newcastle disease virus replication by chicken IFN-γ-induced nitric oxide Hung-Yueh Yeh & J. Sharma	Comparison of Streptogramin-resistant <i>E. faecium</i> from poultry and humans Judith Johnson, J. Hayes & D. Wagner
4:30 pm	Use of immunohistochemistry and <i>in situ</i> hybridization to define sites of infection in birds inoculated with six pigeon-origin strains of Newcastle disease virus Glaucia Kommers, D. King, B. Seal & C. Brown	West Nile fever- A disease of man and animals Mertyn Malkinson, C. Banet, J. Weisman & V. Deubel
4:45 pm	The effect of chicken backpassage on virulence of Newcastle disease virus isolates primarily of non-chicken origin Daniel King, G. Kommers, C. Brown & B. Seal	Pathogenicity of West Nile virus in chickens Dennis Senne, J. Pedersen, W. Taylor, D. Hutto, A. Wilson & B. Panigrahy
	Adjourn 5:00 PM	Adjourn 5:00 PM



	Tuesday, July 25 Session A	Tuesday, July 25 Session B
	Moderator: Guillermo Zavala	Moderator: Joan Jeffrey
8:00	Analysis of multiple Marek's disease virus genes in recombinant fowlpox virus Lucy Lee, R. Witter & S. Reddy	Plasmid profiles of <i>Escherichia coli</i> of chicken origin and their association with site of origin, biochemical profiles ("biocode"), and lethality for embryonated eggs. Roy Montgomery, Y. Luo, C Boyle & L.Jones
8:15	Efficacy of a live vectored Marek's disease virus GB and Newcastle disease virus F and HN proteins Huw Hughes, G. Sarma, D. Roessler & F. Sterner	Biochemical fingerprints and antimicrobial susceptibility patterns of <i>Escherichia coli</i> isolates from clinical and environmental turkey specimens Sean Altekruze, F. Elvinger, N. Sringinathan, D. Ward & F. Pierson
8:30	Field experience with recombinant (r) HVT (MDV) and rHVT (MDV, NDV) vaccines Ruud Hein & G. Slacum	Arsenite resistance in <i>Escherichia coli</i> isolates of avian origin Penelope Gibbs, R. Wooley & J. Maurer
8:45	The use of serotype 1 MDV as an <i>in ovo</i> vaccine in SPF chickens Yugen Zhang & J. Sharma	The effects of <i>Escherichia coli</i> of different origins on inducing avian cellulitis Kenneth Macklin & R. Norton
	Break 9:00 AM – 9:30 AM	Break 9:00 AM – 9:30 AM
	Moderator: John Glisson	Moderator: Roy Montgomery
9:30	Efficacy of a multivalent <i>in ovo</i> vaccine in commercial chickens Jagdev Sharma, Y. Zhang, D. Jensen, S. Rautenschlein & H. Yeh	Comparison of virulence factors in <i>Escherichia coli</i> associated with cellulitis or colisepticemia in chickens Joan Jeffrey, L. Nolan, R. Singer C. Giddings, L. Elijah, S. Wolfe & K. Tonooka
9:45	Increased protection following <i>in ovo</i> vaccination against infectious bronchitis with a DNA vaccine containing the S1 glycoprotein gene Darrell Kapczynski, D. Hilt & M. Jackwood	Intensive field study of environmental risk factors for cellulitis in broiler chickens Randall Singer, J. Jeffrey & E. Atwill
10:00	Protection studies of infectious laryngotracheitis in chickens immunized with DNA vaccine I-Hsin Cheng, S. Riblet & M. Garcia	Risk factors associated with <i>E. coli</i> infections in Ontario turkeys Bruce Hunter, E. Martin, B. Senai & I. McMillan
10:15	Efficacy if three inactivated vaccines to inclusion body hepatitis and hydropericardium syndrome in broilers in Peru Eliana Icochea, M. Alba, L. Flor & A. Ramirez	Clinical field efficacy study using apralan soluble powder for the control of colibacillosis-related mortality in growing turkeys Bret Rings, G. Moore, A. Zimmerman & T. Campi
	Business Meeting 10:30 AM – 12:00 Noon	Business Meeting 10:30 AM – 12:00 Noon
	Lunch 12:00 Lunch – 1:00 PM	Lunch 12:00 Lunch – 1:00 PM
	Moderator: Dick Witter	Moderator: Tom Campi
1:00	Antigenic and sequence changes produced by passing ALV-J in tissue culture in the presence of neutralizing antibodies Saad Gharaibeh, T. Brown, Y. Kim, N. Stedman, M. Pantin-Vera & J. Verner	Involvement of <i>Iss</i> in avian colibacillosis Shelley Horne, L. Nolan & C. Giddings
1:15	Multiple avian leukosis virus proviral sequences (including subgroup J avian leukosis virus) detected in a single myelocytoma from a 6-week-old meat-type chicken Guillermo Zavala, M. Jackwood & D. Hilt	Monoclonal antibodies for the detection of <i>Iss</i> Steven Foley, S. Horne, M. Robinson, T. Gustad & L. Nolan



	Tuesday Continued	Tuesday Continued
1:30	The role of non-coding regions in the ALV-J genome on virus replication Robert Silva, B. Lupiani, A. Fadly & H-J Kung	Studies on age susceptibility of stunting syndrome Don Reynolds, A. Ali & J. Oesper
1:45	Biological characterization of two ALV a/j recombinant viruses in chicken Blanca Lupiani, R. Silva, S. Williams, H. Hunt & A. Fadly	Control of <i>Cochlosoma anatis</i> infection in turkeys Magalie Boucher & A. Bermudez
2:00	Tissue tropism of subgroup J avian leukosis virus Susan Williams, K. Conklin, A. Fadly & W. Reed	Field experience with typhlitis in turkey poults David Hermes
2:15	Comparative analysis of the EV-O derived cell line DF-1 and line O, C/E chicken embryo fibroblasts for the isolation and detection of subgroup J avian leukosis virus John El-Attrache, P. Villegas & M. Garcia	Increased mortality in day-old poults associated with ruptured yolk sacs Jose Linares & W. Wigle
2:30	Detection of avian leukosis virus-subgroup J (ALV-J) in microscopic sections using an <i>in situ</i> reverse transcriptase polymerase chain reaction assay (IS-RT-PCR) Tom Brown, M. Pantin, S. Gharaibeh, Y. Kim & N. Stedman	Effect of tylan on hatchability of turkey eggs Gorica Rajcic-Spasojevic
	Break 2:45 PM – 3:00 PM	Break 2:45 PM – 3:00 PM
	Moderator: Tom Brown	Moderator: John Barnes
3:00	Quantification of avian leukosis virus subgroup J (ALV-J) RNA by competitive reverse transcription polymerase chain reaction (C-RT-PCR) Yong Baek Kim, T. Brown, S. Gharaibeh, N. Stedman & M. Pantin	Pododermatitis in turkeys: Survey of U.S.A. and U.K. flocks Steven Clark, G. Hansen, P. McLean & P. Bond
3:15	Heterophil function and resistance to <i>Staphylococcal</i> challenge in chickens naturally infected with avian leukosis virus subgroup J Nancy Stedman, T. Brown & D. Bounous	Prevention of mortality related to leg problems in turkey toms at the end of the grow-out: An economic model Cynthia Philippe, J. Vaillancourt, S. Leeson, J. Barnes, D. Wages, L. Baucom & L. Ivy
3:30	Influence of age at exposure and maternal antibody on subgroup J avian leukosis virus infection in meat-type chickens Aly Fadly & R. Witter	Avian pneumovirus (APV) in wild waterfowl Brian McComb, D. Halvorson, K. Nagaraja, H. Shin & F. Jirjis
3:45	Mitigation of horizontal transmission of subgroup J avian leukosis virus during and immediately following hatching Richard Witter & A. Fadly	Genetic variations in avian pneumoviruses isolated from USA Moses Njenga, A. Heath, D. Halvorson, K. Nagaraja & S. Goyal
4:00	Susceptibility of chicken embryos and hatching chicks to avian leukosis virus-subgroup J (ALV-J): The effects of <i>in ovo</i> antibody Justin Verner, T. Brown, M. Pantin, S. Gharaibeh, Y. Kim, & N. Stedman	Pathogenesis of avian pneumovirus infection in turkeys Faris Jirjis, S. Noll, D. Halvorson, K. Nagaraja & D. Shaw
4:15	Role of nitric oxide on avian tumor virus replication Sanjay Reddy, H-W Seong & L. Lee	Immunosuppression caused by avian pneumovirus (APV) Parag Chary, S. Rautenschlein & J. Sharma
4:30	Pathogenicity studies of four serotype I Marek's disease virus field isolates Jose Ruano, J. El-Attrache & P. Villegas	Studies on susceptibility of broiler chickens to avian pneumovirus of turkeys Hyun-Jin Shin, K. Nagaraja, B. McComb, A. Back & D. Halvorson



Tuesday Continued		Tuesday Continued	
4:45			
	Adjourn 5:00 PM		Adjourn 5:00 PM
	Wednesday, July 26 Session A		Wednesday, July 26 Session B
	Moderator: David Swayne		Moderator: David Rives
8:00	Dual viral infections of pox and ILT in chickens H. L. Shivaprasad, B. Lucio, G. Cooper, B. Charlton, R. Crespo & P. Woolcock		An outbreak of <i>Mycobacterium genavense</i> in a pet bird aviary A. Dhillon, I. Ericks & B. Alisantosa
8:15	A case study of <i>Clostridium botulinum</i> mortality in broiler breeder birds Tami Kelly		The role of various etiologic agents in the pathogenesis of gangrenous dermatitis in broiler chickens Robert Norton, T. Wilder, J. Barbaree, J. Krehling & K. Macklin
8:30	Riboflavin deficiency in commercial California poultry operations Bruce Charlton, G. Cooper, M. Bland, A. Bickford, E. Wallner-Pendleton & G. Cutler		Phylogenetic analysis of adenoviruses isolated in Taiwan from chickens, ducks and pigeons Hsiang-Jung Tsai & C. Tseng
8:45	Electrophoretic approaches to identifying species and detecting population variation in <i>Eimeria</i> from chickens Wayne Woods, D. Richards, K. Whithear & R. Gasser		Impact of Astrovirus infection in commercial turkeys Daniel Karunakaran, S. Schultz-Cherry & D. Reynolds
9:00	Multiple micro-climates in a micro-climate of a cage layer house Radivoje Spasojevic		The role for a novel astrovirus in poult enteritis mortality syndrome Stacey Schultz-Cherry & Matthew Koci
9:15	Evaluation of a single handling/vaccination in broiler breeder pullets and its effect on broiler breeder performance and disease protection Ken Opengart		An unusual case of hemorrhagic enteritis virus infection in market-age turkeys H Shivaprasad, M. DeRosa, G. Cooper & A. Bickford
	Break 9:30 AM – 10:00 AM		Break 9:30 AM – 10:00 AM
	Moderator: Bruce Charlton		Moderator: H. Shivaprasad
10:00	A/chicken/Hong Kong/220/97 (H5N1) HPAIV: Pathogenicity and pathology in Pekin ducks Laura Perkins & D. Swayne		Hemagglutinin-esterase glycoprotein of turkey coronavirus: sequence, functions and immunogenicity Mary Pantin-Vera, T. Brown, M. Jackwood & S. Gharaibeh
10:10	Avian influenza viruses in non-migratory Maryland waterfowl Richard Slemons, W. Hansen, K. Converse & D. Senne		Studies of coronavirus positive turkey farms over time David Rives
10:30	Vaccination effects on prevention and control of avian influenza in broiler breeders and broilers Seyed Mirsalimi		Role of integrated reticuloendotheliosis virus in fowlpox virus pathogenesis Pratik Singh, W. Schitzlein & D. Tripathy
10:45	Assessing egg yolk antibody tests for determining status of influenza infection in chicken eggs and egg products David Swayne		Detection of specific reticuloendotheliosis virus (REV) nucleotide sequences and proteins in putatively REV-integrated fowl poxvirus (FPV) strains. Theodros Tadese & W. Reed
11:00	The role of interferon resistance of the nonstructural protein 1 of avian influenza David Suarez, N. Cauthen & D. Swayne		Role of A-type inclusion gene in the genome of fowlpox virus Deoki Tripathy, S. Viswanathan & W. Schnitzlein
11:15	Open space		The latency site for duck enteritis virus Samia Shawky & K. Schat
	Adjourn 11:30 AM		Adjourn 11:30 AM

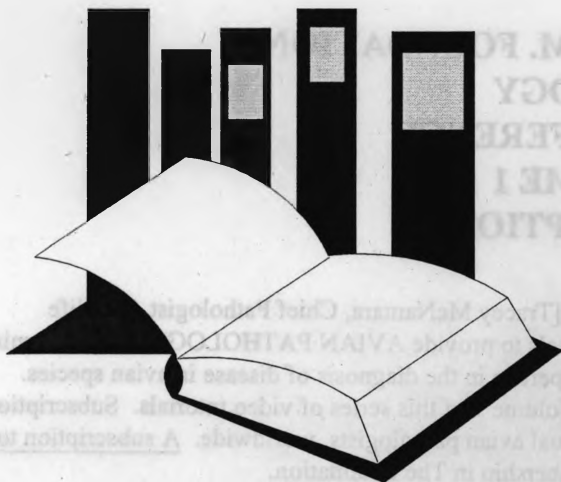


Preliminary AAAP/AVMA Poster Program

- 1) **Genetic variability among chicken anemia viruses in Alabama broiler chicken clinical specimens**
Vicky van Santen, F. Hoerr & L. Lauerman
- 2) **Characterization of infectious bronchitis virus isolates collected in Russia**
Bochkov Yury, S. Lidia, D. Vladimir, B. Alexander, L. Alexander & G. Anatoly
- 3) **Determination of transcription sites for IBV S1 glycoprotein DNA vaccine**
Holly Moore, M. Jackwood, D. Kapczynski, D. Hilt, J. Stanton & C. Brown
- 4) **Nucleotide sequence comparison among field isolates IBDV**
Darl Jackwood & S. Sommer
- 5) **Sequence analysis of segment A polyprotein gene of infectious bursal disease viruses isolated in Korea**
Hyuk Moo Kwon, D. K. Kim & D. Jackwood
- 6) **Sequence analysis of the VP2 hypervariable region of vaccine strains and isolates of infectious bursal disease virus from Russia**
Scherbakova Lidia, B. Yury, D. Vladimir, B. Alexander & G. Anatoly
- 7) **Presence of IBDV viral proteins and genome**
Hung-Yueh Yeh & J. Sharma
- 8) **Modulation of Marek's disease virus infection rate and its effects on tumor formation and splenocyte profiles**
Lucia Garcia-Camacho & D. Bounous
- 9) **Marek's disease-associated encephalitis in commercial leghorn pullets**
James Davis, G. Rowland, & R. Witter
- 10) **Natural coinfection of a domestic chicken (*Gallus gallus domesticus*) with Marek's disease and toxoplasmosis**
Randall Ruble, H. Shivaprasad, P. Wakenell & K. Lam
- 11) **Molecular characterization of MHC haplotypes in broiler breeder chicken lines**
Emily Livant, D. Zheng, L. Johnson & S. Ewald
- 12) **ALV-J diagnosis toward the development of high through PCR**
Pinghua Liu, M. Garcia & N. Ikuta
- 13) **Antigenic analysis of envelope glycoprotein of subgroup J avian leukosis virus**
Aijian Qin, L. Lee, Z. Cui & A. Fadly
- 14) **Comparison and verification of competitive reverse transcription polymerase chain reaction (C-RT-PCR) and real time RT-PCR for avian leukosis virus subgroup J**
Yong-Baek Kim, T. Brown, S. Gharaibeh, N. Stedman, M. Pantin & S. Gullicksen
- 15) **Studies of an avian adenovirus associated with hydropericardium syndrome**
Lobanov Vladislav, B. Vladimir, D. Vladimir & G. Anatoly
- 16) **Comparison of serological methods for the detection of antibody to Newcastle disease virus**
Chinta Lamichhane & L. Jerome
- 17) **Detection of infectious laryngotracheitis in formalin-fixed paraffin-embedded tissues by nested PCR**
Jennifer Humbred, M. Garcia, M. Goodwin & R. Resurreccion
- 18) ***In ovo* administration of fowl pox vaccines**
Alan Avakian, B. Singbeil & D. Grosse
- 19) **Epidemiology & host range of avian pneumovirus**
Kakambi Nagaraja, H. Shin & D. Halvorson
- 20) **Development of immunohistochemical test to detect avian pneumovirus**
Faris Jirjis, S. Noll, D. Halvorson, K. Nagaraja & D. Shaw
- 21) **Variation in turkey coronavirus genes amplified by polymerase chain reaction**
T.L. Lin, A. Akin & C. Wu
- 22) **Comparison of virus isolation, immunohistochemistry and reverse transcriptase polymerase chain reaction for detection of turkey coronavirus**
James Guy, J. Barnes & J. Breslin
- 23) **Infection of turkey breeders with turkey enteric coronavirus**
H. John Barnes & D. Rives
- 24) **Interaction of stunting agent and bacteria in enteric disease**
Akbar Ali & D. Reynolds
- 25) **Detecting *Eimeria maxima* using the polymerase chain reaction**
Tim Cherry, J. McFarland & B. Clack



- 26) **Influence of a tiamulin treatment on detection of DNA-PCR from *Mycoplasma synoviae* infected layers**
Eliana Icochea, A. Saldana, A. Ramirez, N. Noe, R. Gonzales & S. Levisohn
- 27) **Application of polymerase chain reaction (PCR) and restriction fragment length polymorphism (RFLP) for identification of *Mycoplasma gallisepticum* strains from commercial poultry flocks**
Tongrui Liu, M. Garcia, D. Yogev, S. Levisohn, V. Leiting & S. Kleven
- 28) **Field evaluation of *Mycoplasma gallisepticum* vaccines in broiler breeder chickens**
M. Saif, Edin, M. Aly & S. Mousa
- 29) **Isolation and identification of *Ornithobacterium rhinotracheale* from broiler chickens in Korea**
Jong-Ung Yoon, H-J. Kwon, D-W. Lee, Y-K. Ahn & S-J. Kim
- 30) **Persistence of a multiple drug resistance transposon, TN21 is due to its physical linkage to colicin plasmids and disinfectant resistance gene Merb in avian *Escherichia coli***
John Maurer, L. Dasher & C. Hudson
- 31) **C3b and MAC deposition on avian *Escherichia coli* isolates**
Lisa Nolan, C. Giddings, R. Wooley, S. Foley & S. Horne
- 32) **Retrospective study of myocarditis in turkey poults**
H. Shivaprasad, B. Charlton, C. Meteyer, R. Chin, P. Woolcock & R. Crepsio
- 33) **Effects of chicken interferon-gamma on T cell proliferation**
Hung-Yueh Yeh & J. Sharma
- 34) **Experimental *Cryptosporidium baileyi* infections in SPF chickens**
Hayet Abbassi & M. Naciri
- 35) ***Chlamydiosis* in pigeons and pet birds in upper Egypt**
M. Aly & S. Mousa
- 36) **Avian influenza infection in domestic and free-flying water fowls in Assiut province**
S. Mousa & M. Aly
- 37) **Reticuloendotheliosis in Hungarian partridge**
Darrell Trampel
- 38) **Epidemiological and immunological studies on avian paramyxovirus infection in pigeons**
M. Aly
- 39) **NAHMS layers '99: Survey of health and health management practices on U.S. table egg layer operations**
Martin Smeltzer & L. Garber
- 40) **Antimicrobial susceptibility testing: A 10 year summary**
W. Waltman, A. Horne, & K. Mullinax
- 41) **Antibiotic resistant bacteria in rendered products**
Charles Hofacre, J. Maurer, C. Morales, C. Lobsinger & C. Hudson
- 42) **Isolation of quinupristin-dalfopristin-resistant *Enterococcus faecium* from human stool specimens and chickens purchased from grocery stores in the United States: Use of virginiamycin may compromise new human antibiotic**
Shannon Rossiter, K. Joyce, B. Hill & N. Marano
- 43) **Getamicin resistance in human *Salmonella* and enterococci isolates, and chickens enterococci isolates in the United States associated with frequent use of gentamicin in chickens**
Nina Marano, K. Stamey, B. Hill & F. Angulo
- 44) **Frequent isolation of fluoroquinolone-resistant *Campylobacter* from ill humans and chickens in grocery stores in the United States**
Shannon Rossiter, K. Stamey, K. Joyce & F. Angulo
- 45) **Quantitative assessment of disease risk using an audit-based biosecurity evaluation**
Dave Fernandez
- 46) **Investigation of the causes of downgrading carcasses due to breast lesions**
Mac Terzich
- 47) **Composting manure and carcasses: Strategies to contain pathogens and measure their survival**
J. Lloyd Spencer & R. Acorn
- 48) **Using ultraviolet light to improve hatchability and chick quality of broiler hatching eggs**
William Stanley, C. Hofacre & J. Smith
- 49) ***In Vitro* effect of EDTA-Tris and EDTA-Tris-SDS on the efficacy of hatchery disinfectants**
Richard Wooley, J. Sander, J. Maurer & P. Gibbs
- 50) **The effect of heat and 3-nitro on bon quality in heavy meat-type birds**
George Rowland, T. Foutz, A. Griffin & S. Halper
- 51) **Clinical application of carbon fiber for correction of shortening of tendons in some farm animals**
M. Nassef



Avian Medicine: Principles and Application, the well known comprehensive text edited by Branson W. Ritchie, DVM, PhD, Greg J. Harrison, DVM, and Linda R. Harrison and originally published by Wingers Publishing, has been out of print. Now, a limited printing of this original hardcover edition has been sponsored by HBD International. The 1384 page book and the acetate overlay system of the anatomy of an umbrella cockatoo are available separately.

The book is described as the "Why to, when to, how to..." guide to companion and aviary bird medicine, management and surgery. It provides an introduction for the beginning practitioner and student as well as the state-of-the-art techniques for the experienced avian practitioner and animal health technician.

Although the primary subjects are psittacine birds, a special section on Comparative Medicine and Management addresses passerines,

pigeons, backyard poultry, waterfowl, toucans and ostriches. Among the special features are 48 pages of 430 color photographs, and over one thousand black/white line illustrations and photographs.

Book \$99 (+ \$9 S&H in the continental U.S. - call for international S&H fee)

Acetate overlay system \$15

For further information contact HBD International, Tel 800-346-0269 or 561-279-4233. Fax 561-279-4235. E-mail birdfoods@aol.com.

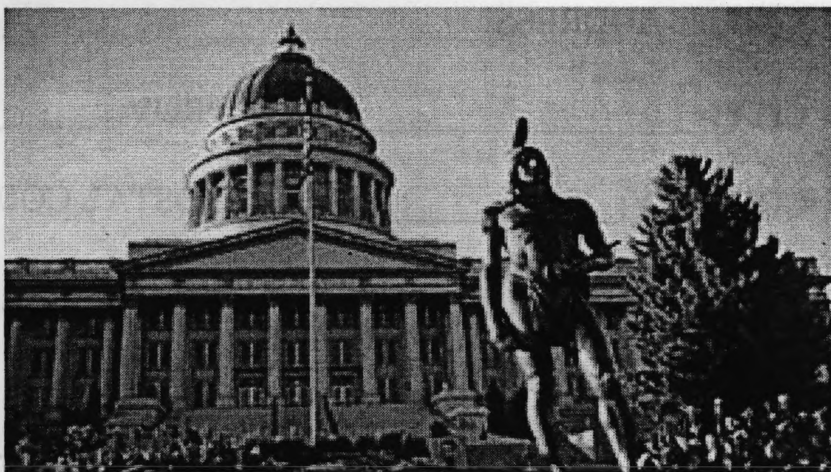
Diseases of Ostriches and other Ratites, F.W. Huchzermeyer. There are times when one wishes to have access to specific information of animal species not native to ones shores. As far as Veterinary Medicine is concerned that need truthfully applies to ratites. The new book on Diseases of Ostriches and Other Ratites authored by FW Huchzermeyer represents a welcome contribution and knowledge enrichment to the management, farming and disease aspects of this animal category. It fills a much needed void with a plethora of valuable and updated information.

The book is organized in three broad areas: Biology - Farming - Diseases of Ostriches and other Ratites. It is both industry and veterinary oriented. It strives to cover everything one wishes to know about ratites in general and ostriches in particular. It is well structured into aspects of marketing, farming, anatomy, physiology, clinical pathology, clinical examination, postmortem examination, therapy and animal behavior. The disease part addresses infectious and non-infectious causes. The book concludes with a listing of over 500 pertinent publications addressing ratites.

The concentrated text of the book is supported by black and white illustrations, color plates and 40 tables with extremely valuable detailed information of physiologic and metabolic data. The tables overcome the need for searching the literature for specific normal or abnormal parameters unique to ratites. In general, the illustrations are of good quality, even the simplified schematic drawings of specific anatomic aspects of ratites.

In summary, the book strives to cover a large spectrum of information on ratite diseases. It is the professional testimony of an expert in the field and reflects a rich experience and knowledge base accumulated over many years of work with ostriches in South Africa. It is well suited for practitioners and should be on the shelf of any veterinarian and farmer dealing with ostriches and ostrich disease problems.

The book is sold by the Librarian, Onderstepoort Veterinary Institute, 0110 "Onderstepoort, South Africa. Price: US\$ 55 (includes shipping). E-mail: alma@moon.oivi.ac.za





**CHARLES LOUIS DAVIS, D.V.M. FOUNDATION
AVIAN PATHOLOGY
VIDEO TUTORIAL REFERENCE
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YEAR 2000 SUBSCRIPTIONS**

"Pathology is the Foundation of all Medicine, for Humans or other Animals" [Tracey McNamara, Chief Pathologist, Wildlife Conservation Society]. The Foundation has developed a series of video tutorials to provide AVIAN PATHOLOGISTS a convenient and enjoyable means of refreshing their knowledge of and enhancing their expertise in the diagnosis of disease in avian species. Commencing with January 2000, The Foundation will begin distribution of Volume 1 of this series of video tutorials. Subscriptions are available to commercial, academic or government institutions and individual avian pathologists worldwide. A subscription to this program does not constitute a Corporate, Institutional, or Individual membership in The Foundation.

For an annual subscription fee of \$200 in North America and \$250 in all other areas of the world, the subscriber will receive a T60 video tutorial dealing with the diseases of avian species, by surface mail, every other month. Volume 1 will include the following video tutorials:

1. Jan. OVERVIEW OF AVIAN PATHOLOGY - Lecture 1, by Dr. H. L. Shivaprasad, CVDLS, Tulare, California
 2. Mar. OVERVIEW OF AVIAN PATHOLOGY - Lecture 2, by Dr. H. L. Shivaprasad
 3. May OVERVIEW OF AVIAN PATHOLOGY - Lecture 3, by Dr. H. L. Shivaprasad
 4. July PATHOLOGY OF RAPTORS, by Dr. John E. Cooper, New Jersey Wild Life Trust, Channel Islands, UK
 5. Sep. DISEASES OF PET BIRDS, by Dr. Robert E. Schmidt, Sacramento, California
 6. Nov. AVIAN CNS & REPRODUCTIVE DISEASES, by Dr. Mick Fulton, Michigan State Univ., East Lansing, Michigan
- Commercial, academic, government institutions or individual avian pathologists who desire to subscribe to volume 1 of THE AVIAN PATHOLOGY REFERENCE LIBRARY MAY MAIL THE ORDER FORM AT THE BOTTOM OF THIS PAGE TO The C. L. Davis Fdn ,6245 Formoor Lane, Gurnee, IL, 60031-4757, USA [Tel: 847-367-4359]. Be certain to include payment with your order and to specify your video signal [] NTSC, [] PAL, [] SECAM, [] MSECAM as well as your correct mailing address. Make checks payable to the C. L. DAVIS FDN. The Foundation also accepts VISA, AMEX, MasterCard and DISCOVER credit cards. Print your credit card number on the order, including its expiration date. The Foundation has no means of supporting this outreach program other than the funds derived from the subscription fee. The Foundation is not in a position to grant free subscriptions.
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49th Western Poultry Disease Conference - to be held March 5-7, 2000 at the Capitol Plaza Holiday Inn in Sacramento, California. Information on the 49th WPDC can be found at the UC Davis Conference and Event Services Web site: conferences.ucdavis.edu.

9th Veterinary Biologics Public Meeting - to be held April 3-4, 2000 at the Scheman Building, Iowa State Center, Ames, Iowa. This meeting is being held to discuss regulatory and policy issues related to the manufacture, distribution, and use of veterinary biological products. The meeting agenda is being planned and suggested topics are requested. For more information, contact Ms. Kay Wessman, Center for Veterinary Biologics, Veterinary Services, APHIS, 510 South 17th Street, Suite 104, Ames, IA 50010. Phone (515) 232-5785. Fax (515) 232-7120. E-mail kay.wessman@usda.gov.

21st Annual Conference of Avian Medicine and Surgery - to be held April 16-18, 2000 in historic Williamsburg, VA. For information, call (540) 951-2559. Fax (540) 953-0230. E-mail office@masaav.org.

Avicola 2000 - to be held May 10-12, 2000 in Buenos Aires, Argentina. For more information, contact Fred Hart/Kathy Gianetti at (301) 493-5500 or fax (301) 493-5705.

3rd International Symposium on Turkey Diseases - to be held June 14-17, 2000 in Berlin, Germany. The purpose of the symposium is to exchange current information and ideas related to turkey diseases through a form of presentations and discussion to assist in a better understanding and efficient control of turkey diseases. The program will cover the following topics: respiratory disease complex, avian influenza, intestinal disorder, immunity in turkeys, turkey meat and public health, and animal welfare. For information, contact Dr. Hafez Mohamed Hafez, Inst of Poultry Diseases, Free University of Berlin, Koserstr 21, 14195 Berlin, Germany. Phone 0049-30-838-3862. Fax 0049-30-838-5824. E-mail hafez@zedat.fu-berlin.de

89th Poultry Science Association Annual Meeting - to be held August 18-20 in conjunction with the XXI World's Poultry Congress and 6th International Marek's Disease Symposium in Montreal, Canada.

XXI World's Poultry Congress and 6th International Marek's Disease Symposium - to be held August 20-25, 2000 in Montreal, Canada. For more information, contact XXI World's Poultry Congress Secretariat, c/o Events

International Meeting Planners Inc., 759 Victoria Square, Suite 300, Montreal, Quebec, Canada H2Y 2J7. Phone: (514) 286-0855. Fax: (514) 286-6066. E-mail info@eventsintl.com

2000 joint conference of the American Association of Zoo Veterinarians and International Association of Aquatic Animal Medicine - to be held September 17-21, 2000 in New Orleans, Louisiana. Joint program sessions include Environmental Issues/Facilities Design, Conservation Medicine/Reports from the Field, Toxicology/Pharmacology/Therapeutics, What's New in Diagnostics?, Nutrition, and Reptiles/Amphibians. AAZV concurrent sessions will be Avian, Large Mammals/Ungulates, Small Mammals/Carnivores/Primates, Case Reports/Practice Tips, Innovations in Training at Home and Abroad, New and Improved Surgical Techniques, and Preventive Medicine/Group and Herd Health. IAAAM concurrent sessions will be Infectious Disease, Immunology/Clinical Pathology, Case Reports, and Pathology. There will also be a poster session, veterinary student paper competitions, and workshops/wet labs. For additional information, please contact Wilbur Amand, VMD, Executive Director/AAZV, 6 North Pennell Road, Media, PA 19063. Phone (610) 892-4812. Fax (610) 892-4813. E-mail 75634.235@compuserve.com.



Job and Training Opportunities

Poultry Pathobiologist

In concert with an initiative supported by the Poultry Industry Council, the Department of Pathobiology, Ontario Veterinary College, University of Guelph, announces the availability of a tenure-track faculty position, at the Assistant or Associate Professor level. The successful candidate will have a degree in veterinary medicine and Ph.D., DVSc, or equivalent advanced education in veterinary pathology, microbiology, or related disciplines, with demonstrable research potential in the pathology and/or pathogenesis of diseases important to the Poultry industry. Duties encompass teaching topics relevant to poultry health in undergraduate and graduate programs, including facilitation of experimental learning by participation in the related activities of the University's diagnostic laboratory. A major responsibility will be development of an extra-murally funded research program, appropriate for graduate and postdoctoral student education, and relevant to the poultry industry of Ontario. The opportunity is also available for collaboration within the CFI funded program in food safety. Candidates should be eligible for licensure to practice veterinary medicine in Ontario. In addition, certification or eligibility for certification by a recognized specialty board, such as the ACVP or ACVM will be viewed positively. It is expected that the successful candidate will collaborate with others in the poultry research team on campus and it is essential that she/he communicate effectively with the poultry industry. Willingness to be an active member of the Department, College, University, and scientific communities would also be expected. The Department has interests in mammalian and comparative pathology, veterinary infectious diseases, and immunology. Faculty have established research programs in a variety of areas funded through provincial, federal, and industrial sources and the Department has an excellent infrastructure to support animal research. Salary is negotiable and commensurate with qualifications.

The University of Guelph is committed to an Employment Equity Program that includes special measures to achieve diversity among its faculty and staff. We therefore, particularly encourage applications from qualified aboriginal Canadians, persons with disabilities, members of visible minorities and women.

In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada.

The deadline for applications is **May 1, 2000** or until a suitable candidate is found. Please send a complete curriculum vitae and the contact information for three references to: **Dr. Patricia E. Shewen, Chair, Department of Pathobiology, University of Guelph, Guelph, Ontario, N1G 2W1 Canada**

Fax: (519) 824-5930; E-mail: pshewen@uoguelph.ca

The appointment is subject to final budgetary approval.



What happens when a chicken
pathologist finds too much time on his
hands

You're Chicken

You're chicken!

Yellow!

Fuzzing peeping fowl

Order chicken!

Fried!

Greasy finger towel

You're egg

Head!

Disdain common folk

Cracked egg

Shell!

With big yellow yolk

You're cock!

Crow!

Other chickies cluck

Free range

Bird!

Sunny side up

You're nest

Egg!

Start new breed

Hatchet chop!

Off!

Now chicken feed

You're chicken!

Cross

The road in haste

Hungry world

Needs

The better taste

You're chicken!

Doug Erbeck

Avian Virologist

The Poultry Diagnostic and Research Center of the College of Veterinary Medicine, University of Georgia, invites applications for a tenure-track position at the rank of assistant professor at the Department of Avian Medicine. Candidates must have a Ph.D. in animal virology. The DVM degree and experience with poultry viruses is desirable. Responsibilities include providing diagnostic services in avian virology, research on the characterization of clinical viral isolates, and instruction in graduate programs at the department. Salary and rank are competitive with other positions of equal status and will be commensurate with qualifications.

Interested persons should submit their curriculum vitae and names of 3 persons who may be contacted as references. Deadline for receipt of applications is June 30, 2000.

Direct inquiries and submit applications to Dr. Pedro Villegas, Department of Avian Medicine, University of Georgia, Athens, GA 30602-4875. Phone: (706) 542-5085, Fax: (706) 542-5630.

Email: pedrov@arches.uga.edu

The University of Georgia is an equal opportunity/affirmative action institution.





Faculty Position in Avian Medicine and Pathology

The Department of Pathobiology, School of Veterinary Medicine, University of Pennsylvania has a new faculty position for a clinician-educator in the Laboratory of Avian Medicine and Pathology located in Kennett Square, Pennsylvania.

The successful candidate must have a DVM or equivalent recognized veterinary degree from an AVMA accredited college of veterinary medicine. In addition, the candidate must have specialty board certification by the American College of Poultry Veterinarians, an advanced degree in epidemiology, pathology or microbiology and a minimum of three years of clinical and diagnostic experience. Experience in teaching, clinical research and completion of a residency training program is highly desirable.

Effective communication and interpersonal skills to work with colleagues, poultry producers, servicemen, students and researchers are essential.

Responsibilities will include: oversight of the necropsy service of cases presented to the Laboratory, involvement in field investigation of new or serious problems of poultry flocks, teaching of veterinary students, participation in continuing education programs for poultry industry personnel, involvement in appropriate clinical research, and publication of this research in peer reviewed journals.

Applicants are invited to submit a letter of application, current curriculum vitae, official transcript or certification of degree(s), together with the names of three references to:

Dr. Mark Haskins, Chair of the Search Committee, University of Pennsylvania, 3800 Spruce Street, Philadelphia, PA 19104-6051. The closing date for applications is March 15, 2000 or until filled. The appointment rank will be commensurate with credentials.

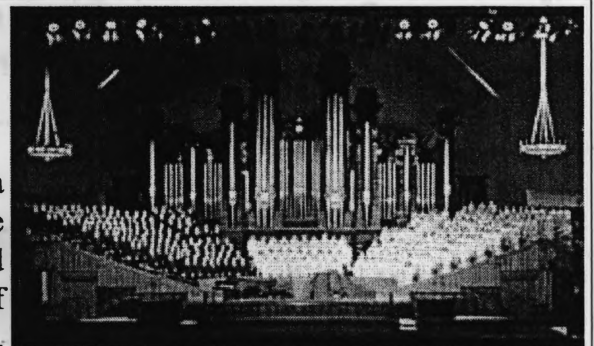
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RESIDENCY TRAINING IN POULTRY MEDICINE AND PATHOLOGY

Two-Year Residency Program in Poultry Medicine.

The Department of Pathobiology, The University of Pennsylvania is seeking applicants for a training position in poultry medicine and pathology to begin July 1, 2000. This position will be located at the New Bolton Center Campus of the University of Pennsylvania, School of Veterinary Medicine, Kennett Square, Pennsylvania. The laboratory is part of the Pennsylvania Animal Diagnostic Laboratory System and is certified by the American Association of Veterinary Laboratory Diagnosticians. This program provides post-veterinary training in diagnostic avian pathology, including gross and microscopic pathology, microbiology, and serology. In addition, training will include clinical evaluation of farm problems related to poultry health management and disease prevention. Opportunities exist to work with all facets of the poultry industry (layers, broilers, breeders and turkeys). This program will enhance the candidate's eligibility for certification by the American College of Poultry Veterinarians. Requirements: Applicants must possess a D.V.M. or equivalent degree. There is no licensure requirement. Salary: \$24,000 for the first year plus benefits. Contact: Dr. Robert J. Eckroade, Head, Laboratory of Avian Medicine and Pathology, New Bolton Center, 382 W. Street Road, Kennett Square, PA 19348-1962. Call or fax for application packet specifying interest in the residency training program. Phone 610-444-4282, FAX 610-925-8106. The closing date to receive completed applications is March 1, 2000.

The University of Pennsylvania is an affirmative action/equal opportunity employer.





AVIAN DISEASE SPECIALIST RESIDENCY PROGRAM

The California Veterinary Diagnostic Laboratory System, School of Veterinary Medicine, University of California, Davis is offering a two-year residency program in avian diseases. This program is designed to provide training in poultry diagnostics and production medicine for those interested in avian diagnostics and clinical poultry veterinary medicine. The training involves extensive poultry diagnostic casework. Casework is supplemented by weekly case conferences, seminars, lectures, and rotations through specialty laboratories including bacteriology, immunology, virology, and toxicology. One position is available at the Turlock branch laboratory. A DVM is required and one year of internship or equivalent experience is preferred.

The current salary for the first year of the residency program is \$32,592.00. Continuation in the program is contingent upon mutual satisfaction on the part of both the resident and the CVDLS.

Applicants must request a special application form and prepare to submit (1) a curriculum vitae, (2) a letter of intent, (3) transcripts from veterinary school(s), and (4) three letters of recommendation to: Sharon Hein, Resident Affairs Coordinator, Administration Office, California Veterinary Diagnostic Laboratory, P.O. Box 1770, University of California, Davis, CA 95617, (530) 752-8709, e-mail: shein@cvdls.ucdavis.edu. Materials are due as soon as possible or by April 30, 2000.

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EACH RESIDENCY PROGRAM BEGINS ON AUGUST 1.

Poultry Health Management Residency Master of Specialized Veterinary Medicine

North Carolina State University College of Veterinary Medicine (NCSU CVM) is offering a unique opportunity for post-veterinary professional development: a combined Residency in Poultry Health Management and Master of Specialized Veterinary Medicine. Successful completion of this 24 month program will result in certification of Residency completion and a non-thesis Master's degree. This program provides post-veterinary training in the identification and control of factors impacting poultry health and production. Goals of the program are to prepare veterinarians for productive roles in the modern poultry industry and provide experiences which will enhance eligibility for certification by the American College of Poultry Veterinarians. Poultry Health Management residents/graduate students will participate in (1) field investigations and research related to poultry health management and disease prevention, (2) application and interpretation of laboratory diagnostic technology e.g. serology, microbiology, and pathology, (3) teaching activities of the Poultry Health Management faculty, 4) production of commercial turkey and broiler flocks at the NCSU CVM Teaching Animal Unit, and (5) use of computers for word processing, presentations, and data management and analysis.

The Poultry Health Management program makes use of resources at the College of Veterinary Medicine, NCSU Poultry Science Department and Poultry Cooperative Extension Service, North Carolina Department of Agriculture Animal Disease Diagnostic Laboratories, and integrated poultry production companies.

Applicants must submit (1) application form, (2) letter of intent, (3) transcripts of university and veterinary college performance, (4) curriculum vitae or resume, and (5) three letters of recommendation to be eligible for the Poultry Health Management program beginning 1 July 2000. For further information and application materials contact the Director of Student Services, Ms. Cindy DeLuca at the College of Veterinary Medicine, North Carolina State University, 4700 Hillsborough St., Raleigh, NC 27606 (phone 919.513.6203; FAX 919.513.6452, email cindy_deluca@ncsu.edu).

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