AAAP WINTER NEWSLETTER

January 1998

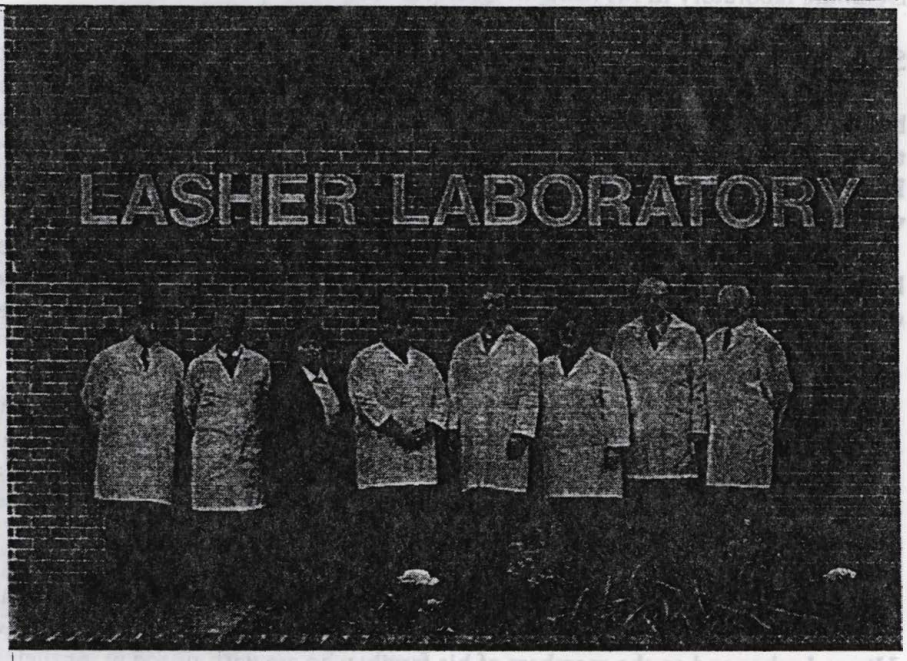
AAAP Annual Meeting

to be held July 25-29 in Baltimore, Maryland

We have selected the Hyatt Regency Baltimore for the AAAP Headquarters. The International Salmonella Symposium, all committe meetings, the AAAP Awards Luncheon, AAAP Board of Directors Meetings and the ACPV Exam will be held in the Hyatt. The AVMA/AAAP-Avian Medicine Scientific Program and Poster session will be held in the Convention Center.

The AVMA Registration and Housing forms are attached. The registration form for the International Symposium on Food-borne Salmonella is also attached. Please send the housing form in early so that you will be guaranteed a room in your hotel of choice.

The meeting format has been changed slightly this year. The International Symposium on Food-borne Salmonella will be held on Saturday, July 25 and Sunday, July 26. *This meeting has a separate registration (form attached) from the AVMA/AAAP Scientific program.* The AVMA/AAAP Scientific Program will begin on Monday, July 27 and run through noon on Wednesday, July 29.



University of Delaware Laboratory Dedicated in Honor of Dr. Hiram N. Lasher

Pictured (l to r) is the staff of Lasher Laboratory anchored by Dr. Mariano Salem and consultant Dr. Vergil S. Davis on the left and benefactor Dr. Hiram N. Lasher and Dr. Edwin M. Odor on the right. (See story on page 2)

The AAAP Board of Directors will meet all day on Thursday, July 23 and Friday, July 24 and again on Wednesday morning, July 29. Anyone with agenda items for the Board meeting should contact the AAAP Business Office.

The preliminary program for the AVMA-Avian Medicine Scientific Program is enclosed.

AAAP Business Office
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Website www.vm.iastate.edu/aaap/

University of Delaware Laboratory dedicated in honor of Dr. Hiram N. Lasher

Dr. Hiram N. Lasher of Millsboro was honored November 21 with the dedication of a new University of Delaware laboratory in his name in Georgetown.

The new Lasher Laboratory, originally constructed to support poultry research by the Agricultural Research Service of the USDA, was transferred to the University when USDA decided to close it.

The Delaware General Assembly and the Sussex County Council provided operating funds to keep the building open, and a major gift from Dr. Lasher has allowed the University to update and renovate the lab so that it can now support the research, outreach and extension programs of the University's Research and Education Center and College of Agricultural Sciences. A new interactive video classroom and conference center will provide new opportunities for innovating programs.

Calling Dr. Lasher "a pioneer in the world of poultry biologics," UD President David P. Roselle, said the gift he and his wife, Bertha, gave in memory of their son, Steven Hiram Lasher, has enabled the University "to continue the vital support of the work that has marked Hiram's career in Southern Delaware and the world."

Roselle said the spirit in which the Lashers made their gift is epitomized in the words of Winston Churchill: "We make a living by what we get, but we make a life by what we give."

Also speaking at the ceremony were a variety of individuals who have helped the course of agriculture in the state, including Frank Greene, associate North Atlantic area director of the ARS of USDA; Delaware Governor Thomas R. Carper; H. Wesley Towers Jr., state veterinarian; Denise Lasher, Hiram and Bertha Lasher's daughter and a 1977 UD graduate; John Nye, dean of the UD College of Agricultural Sciences; John K. Rosenberger, Chairperson of the Department of Animal and Food Sciences at UD; and Mark Isaacs, director of the Research and Education Center in Georgetown.

Formally dedicating the laboratory, UD Trustee John E. Burris said that Lasher has "dedicated his life to the advancement of poultry health on the Delmarva Peninsula and throughout the world....We are indebted to Dr. Hiram Lasher and to the members of his family who are with us today for their leadership, support and commitment to the University of Delaware."

Dr. Lasher came to Delaware in 1948 as a poultry pathologist with the State Board of Agriculture. Since then he has founded three companies and made Delaware an international leader in the development of poultry biologics. In 1950, he founded Delaware Poultry Laboratories in Millsboro and began producing high quality, moderately priced vaccines, as well as providing growers with free, expert diagnostic services and flock management advice. In 1959, his company was bought by Sterling Drug Inc, a major international pharmaceutical conglomerate. It was later renamed Sterwin Laboratories with Lasher as president. He took early retirement in 1979. He then started a venture known as Inter-continental Biologics Inc., which was a state-of-the-art, high-tech production facility, aimed at the world marketplace. His venture attracted the attention of Intervet International which bought the venture and installed Lasher as president, a post he held until he retired in 1982. In 1982, he founded Lasher Associates, Inc. and as president, he continues to serve as a national and international consultant in poultry biologics. His clients range from small businesses to multinational corporations around the world. In addition to his commercial work, Dr. Lasher has shared his ideas and knowledge with the poultry industry generally and with his colleagues individually. He has served on the Poultry Health Committee of the Delmarva Poultry Industry Inc. and on the committee on Transmissible Diseases of the USAHA, and he is a member of the Agriculture Committee for the College of Agricultural Sciences at the University.

His work has won him many honors, including the Delmarva Poultry Industry's Medal of Achievement, the C.A. Bottorff Award, an honorary degree from Delaware Technical and Community College, the Order of Merit and Silver Beaver awards from the Boy Scouts of America and the Order of the First State.

Dr. Deoki N.Tripathy
Receives Pfizer Research Excellence Award

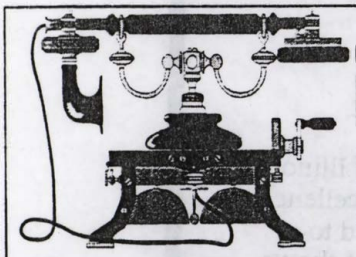
Dr. Deoki N. Tripathy, professor of veterinary pathobiology at the University of Illinois College of Veterinary Medicine, received the Pfizer Animal Health Research Excellence Award at a November 7th ceremony in Urbana, Illinois. The award is presented to a current faculty member for research performed at the University of Illinois that shows promise of attaining or that has attained national recognition. Dr. Tripathy received $1,000 and a plaque.

Dr. Tripathy's research is focused on the development of recombinant viral-vectored vaccines for prevention of diseases in food-producing animals and the development of sensitive diagnostic tests. Dr. Tripathy demonstrated for the first time that a heterologous pox virus promoter can regulate expression of a foreign gene in fowlpox virus. This was an important step in the development of recombinant vaccines and the first such work on the UI campus.

Dr. Tripathy's long and distinguished career has been linked to the College of Veterinary Medicine since he came here on fellowhship in 1964. He has published more than 100 articles and book chapters and has given numerous abstract and presentations at national and international meetings. Dr. Tripathy has been serving as an invited member of a Poxvirus Study Group of Internatioal Committee on Taxonomy of Viruses since 1984. In addition to his teaching and research, Dr. Tripathy is a Diplomate of the American College of Veterinary Microbiologists and the American College of Poultry Veterinarians. He is a member of the Biotechnology Committee of AAAP and the committee on Biologics and Biotechnology of the U.S. Animal Health Association. In 1995, he was awarded a Fulbright research Award. In 1997, Dr. Tripathy received the Pharmacia and Upjohn Animal Health Achievement Award for his distinguished research contribution to Avian Medicine. He currently resides in Urbana, Illinois.

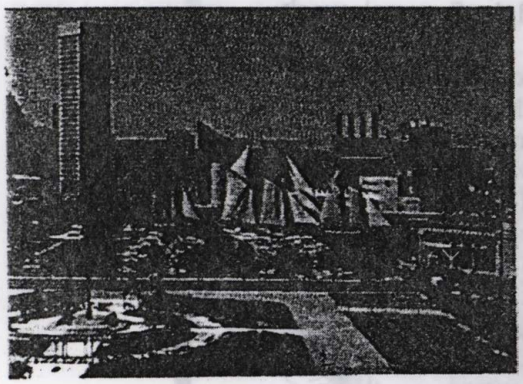
Camden Yards in Baltimore

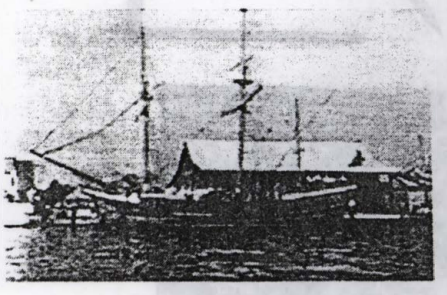
Fort McHenry National Monument and Historic Shrine
(National Park Service)



Antiques

Silent Auction Don't forget the silent auction to benefit the AAAP Foundation which will be held during the Western Poultry Disease Conference in Sacramento, California on March 7-10, 1998. Bring your memorabilia (old books, manuscripts, etc.) and offer it for auction. The highest bidder makes the donation to the AAAP Foundation and becomes the new owner of the goods. The original owner gets the deduction for a contribution. For more information contact Dr. "Rosy" Rosenwald. Phone (530) 753-2563.





The 1998 member rate for "Avian Pathology" is $124.

From the Desk of Dr. Teresa Morishita

Updates from the AVMA Animal Welfare Committee

At our most recent AVMA Animal Welfare Committee meeting held November 5-6, 1997, the committee was asked to consider and take potential action on an issue related to poultry. This issue was to reconsider the AVMA's position statement on "Induced Molting of Layer Birds". This request was made by the Association of Veterinarians for Animal Rights (AVAR) who initiated a letter writing campaign to AVMA. United Poultry Concerns has since joined AVAR in this campaign. As of November 1, 1997, the AVMA has received 108 letters asking that AVMA change its position statement on the induced molting of layer birds.

Committee Action: The AVMA Animal Welfare Committee felt the current position is adequate. The committee decided to take no action on the AVAR and UPC request.

I would like to thank Dr. Marion Hammarlund, Chair, AAAP Animal Welfare Committee, and Dr. Don Bell, University of California, who provided information to help address the "Induced Molting of Layer Birds" issues for our committee.

If there are any issues that AAAP members would like to have the AVMA Animal Welfare Committe address, please contact me at the Department of Veterinary Preventive Medicine, The Ohio State University, 1900 Coffey Road, Columbus, OH 43210

The 47th Western Poultry Disease Conference - will be held March 7-10, 1998 in Sacramento, California. For more information, contact Dr. Richard Chin, CVDLS-Fresno, 2789 S. Orange Ave, Fresno, CA 93725. Phone 209-498-7740 or Lina Layiktez, Conference & Event Services, University of California, Davis, CA 95616. Phone 530-757-3331. Fax 530-757-7943. E-mail lmcaparas@ucdavis.edu.

The New England Poultry Health Conference - will be held March 25-26, 1998 at the Portsmouth Sheraton in Portsmouth, NH. For information contact Dr. H. Michael Opitz, Extension Veterinarian, Cooperative Extension, Animal and Veterinary Sciences, University of Maine. Phone 207-581-2771 or fax 207-581-4430.

The 19th Annual Conference of the Mid-Atlantic States Association of Avian Veterinarians - will be held April 26-28, 1998 in Lancaster, PA. A variety of basic and advanced avian veterinary medical topics will be presented at the conference. This nationally attended conference provides an opportunity to receive high-quality avian veterinary medical continuing education at a reasonable price. The conference offers practical topics, not only for the experienced avian veterinarian, but also for those veterinarians, veterinary students and technicians just starting or having an interest in avian medicine and surgery. Lectures, hands on laboratories covering basic and advanced avian techniques plus specialized procedures are planned. In addition, a day long basic program intended for technicians is scheduled. Continuing education certificates of up to 22 contact hours are available for veterinarians and technicians. For full program and registration information, contact Dr. Keath L. Marx at 540-951-2559 or E-mail figment@bellatlantic.net or web site http://www.virtual-northwest.com/exotic/MASAAV.

10th European Poultry Conference - will be held June 21-26, 1998 in Jerusalem, Israel. The conference is open for scientific contributions on advancement of knowledge in all aspects of poultry science and the poultry industry all over the world. For more information, contact WPSA - Israel Branch, 10th European Poultry Conference, PO Box 50006, Tel Aviv 61500, Israel. Phone 972-3-5140000; Fax 972-3-5175674/ 5140077; E-mail poultry @kenes.ccmail.compuserve.com

The 3rd International Symposium on Food-Borne Salmonella in Poultry - will be held in conjunction with the 1998 meeting of the AVMA in Baltimore, Maryland. Both invited speakers and submitted poster presentations will be included in the program. See enclosed brochure for further information.

The 1998 Poultry Science Association Annual Meeting - will be held August 2-5, 1998 in University Park, PA, at the Penn Stater Conference Center and Hotel. The Pennsylvania State University will host the meeting. More than 1000 people from around the world are expected to attend. Some of the scheduled symposia include:

- The PSA ancillary Scientists pre-meeting symposium on Muscle Growth and Development is scheduled for August 1-2.
- BioPore, Inc. is sponsoring "Managing Poultry Reproduction to Meet Demands for Unique Product Characteristics"
- The PSA Extension Committee has organized an "Effective Poultry Programming in the Next Century" symposium
- A PSA sponsored program entitled, "Reducing the Environmental Impact of Poultry Production: Focus on Phosphorus"
- The PSA Teaching Committee has Developed an Undergraduate Poultry Science Program: Current Successes and Future Concerns symposium.

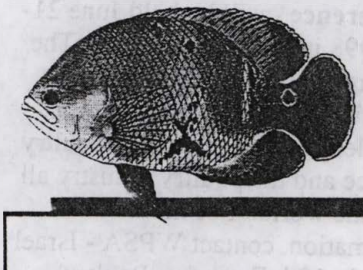
The Annual Meeting includes general sessions covering nutrition, physiology, genetics, pathology, immunology, and management. For registration, housing, symposium, and exhibiting information, contact PSA Headquarters at 1111 North Dunlap Ave, Savoy, IL 61874, phone 217-356-3182, fax 217-398-4119 or e-mail psa@assochg.org. In addition, all annual meeting information can be found at the PSA web site: http://www.psa.uiuc.edu/.

3rd International Raptor Biomedical Conference - will be held August 9-11, 1998 in Midrand, South Africa. The conference will be held in conjunction with the V World Conference on Birds of Prey and Owls (Aug. 4-11) at the ESKOM Training and Exhibition Centre in Midrand and is planned close to the International Ornithological Conference of BirdLife International (Aug. 16-22). The conference will start with practical labs on raptor orthopaedics, raptor ophthalmology and raptor rehabilitation techniques on Sunday August 9. The main conference is scheduled for August 10 and 11. On Monday evening August 10 there will be a poster and free communications session. Proposals for free communications and posters can be sent to the Chairman of the Scientific Committee: J.T. Lumeij, Div of Avian and Exotic Animal Medicine, University Utrecht, Yalelaan 8, 3584 CM Utrecht, The Netherlands, e-mail: J.T.Lumeij@ukg.dgk.ruu.nl. For more information on registration, hotel accommodation, the social program and field trips please contact Local Arrangements Manager Dr. Gerhard H. Verdoorn, P.O. Box 72155, Parkview 2122, South Africa. Phone 27-11-646-4629/8617, fax 27-11-646-4631, E-mail nesher@ global.co.za.

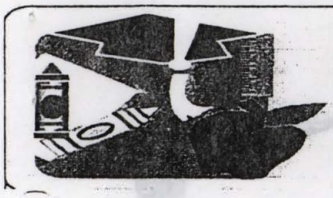
5th European AAV Conference and 3rd Scientific Meeting of the European College of Avian Medicine & Surgery (ECAMS) in cooperation with Italian cultural Association of Companion Animals Veterinarians (SCIVAC) - will be held May 17-22, 1999 in Pisa, Italy. The program will include one day of papers from ECAMS diplomates, practical laboratories and a three day main AAV Conference. For more information, please contact the Organising Secretariat, New Team, Via C. Ghiretti, 2, 43100 Parma, Italy. Phone 39-521-293913, fax 39-521-294036. E-mail newteam.parma@iol.it.

World Vet 99 - will be held September 22-29, 1999 in Lyon, France. Two world congresses: The WVA Congress and The WSAVA/FECAVA Congress are jointly organized. For more information, contact CNVSPA (AFVAC), 40 Rue de Berri, F-75008 Paris, France. Phone 33-1-53-839160 or fax 33-1-53-839169.

Externships - The Raptor Center at the University of Minnesota is offering 3-6 week long externships for senior veterinary students. In this program, United States students are advised to schedule their externships between August 1 and December 31, when the center's caseload reaches its peak and offers the most challenge and variety. Veterinary students from outside the United States may schedule externships any time of the year. Students will be responsible for assisting the residents and senior clinician in diagnosis and surgical/medical treatment of all raptors and trumpeter swans brought to the clinic. Approximately 700 cases are admitted annually. Externs will also be responsible for most necropsies and the completion of a research or writing project that may be submitted for publication. Interested students should send a cover letter stating their purpose for applying to this program, a resume, an official grade transcript from the veterinary curriculum, two letters of recommendation, and available dates to: Jalila Abu, DVM, MSc, The Raptor Center, 1920 Fitch Ave, St Paul, MN 55108, E-mial: abux0002@gold.tc.umn.edu. A limited number of slots are available, so early application is advised.



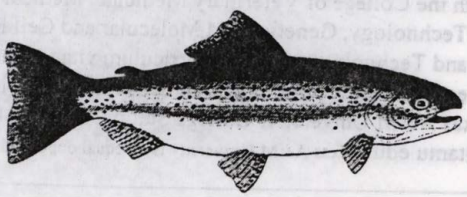
Visiting Professorship - The Raptor Center at the University of Minnesota is seeking applications from individuals interested in researching the pathophysiology, immunological and serological diagnosis, treatment and vaccination for avian aspergillosis. Applicants should have advanced training (Masters or PhD) and work experience in applicable immunodiagnostic methodologies and vaccine technology, and/or pharmacokinetics of antifungal agents currently in use or under development. Preference will be given to persons holding a degree in veterinary medicine. The position will be established as a Professional and Administrative classification (non-tenure track) with an annually renewable contract and an expected duration of up to 3 years. Salary will be commensurate with experience and similar position at this and other institutions in the peer group of the University of Minnesota. Interested persons should contact: Dr. Patrick Redig, Director, The Raptor Center, 1920 Fitch Ave, St. Paul, MN 55108. Phone 612-624-4969; Fax 612-624-8740; e-mail redig001@maroon.tc.umn.edu. The University of Minnesota is an equal opportunity educator and employer.



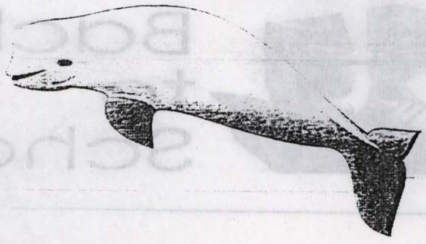
Back to School

Combined Residency/Graduate Program in Avian Health. The Dept of Veterinary Pathobiology, Univ. of Minnesota, wishes to fill a combined residency/graduate program in avian health. Candidates must have a DVM or VMD from AVMA accredited veterinary college. Enrollment in Graduate School is required. One 2-year post-graduate training program in Avian Health designed to prepare the resident for specialty practice in Poultry Medicine, to fulfill the residency requirement of the American College of Poultry veterinarians and to enable the student to pursue a masters degree. The residents time is divided between clinical service (2/3) and professional development time (1/3). The responsibilities in the area of clinical service and teaching including case management/diagnostics, field trips, supervision of veterinary students and participation in meetings and seminars. Major emphasis is placed on poultry pathology, physiology, serology, and clinical evaluation of field problems. There are diverse opportunities to interact with personnel in the layer, broiler and turkey industries. Send a curriculum vitae, letter of interest and three letters of reference by March 30, 1998. Applications will be reviewed continuously until the position is filled or through March 30, 1998, whichever occurs first. Send to Dr. Dave Halvorson, Search Committee Chair, Dept of Vet Pathobiology. College of Vet Med, Univ of Minnesota, 1971 Commonwealth Ave, St Paul, MN 55108. The University of Minnesota is an equal opportunity educator

Residency in Raptor and Avian Medicine - is available at the Raptor Center at the University of Minnesota. Requirements: DVM degree and eligibility or acceptance to the graduate school, University of Minnesota. Applicants should be recent graduates (within 5 years) of AVMA-accredited colleges or schools of veterinary medicine, or equivalent from a foreign institution. Background training and experience in wildlife subjects, experience in rehabilitation of wildlife, especially avian species, and a broad interest in ecology and conservation issues with an intent to improve the veterinary profession in wildlife issues is desirable. Preference will be given to those who have served a one-year internship or have one year experience in an avian practice and articulate a career interest in avian conservation, particularly involving raptors. Duties: As a resident clinician, the holder of this position will be part of a medical team consisting of a senior clinician, one other resident, four veterinary technicians, and over 200 volunteers who provide medical and surgical care for approximately 650 raptors annually. About 20 hours per week, plus on-call duty is assigned to clinical work. The academic portion of the program involves the pursuit of a master's degree (plan A, thesis research, or plan B, review paper). The master's degree can be in one of several areas of clinical sciences such as surgery, anesthesia, microbiology, pharmacology, or toxicology, or may also involve basic research in pathology or physiology, but must involve avian topics. Opportunities: The Raptor Center is internationally recognized for its work in raptor medicine, surgery, public and professional education, and restoration of endangered species. About 700 patients are seen annually, most having sustained traumatic injuries. The program operates from a state of the art facility that contains surgery, radiology, and diagnostic laboratory facilities. Additional facilities and resources are available in the veterinary teaching hospital. Residents interact with other TRC staff conducting public education programs and field work on endangered and threatened species as wel as other faculty and graduate students in the CVM and other allied University of Minnesota units. Salary: $22,500/year, plus benefits and tuition waiver (standard pay scale for residents in the VTH). The position is for three years with annual review and contract renewal. Beginning date: July 1, 1998. Contact: Send a letter of application, transcript of CVM grades, curriculum vitae or resume, and three letters of reference to Dr. Patrick T. Redig, The Raptor Center, 1920 Fitch Ave, St. Paul, MN 55108. Letter of application should contain a statement of how you perceive this residency contributing to your professional goals and the role the veterinary profession can play in wildlife conservation. The University of Minnesota is an equal opportunity educator and employer.



HELP WANTED



Poultry Pathologist/Diagnostician - The Maryland Department of Agriculture (MDA) invites applicants for a position classified as Veterinarian IV at the Animal Health Laboratory in Salisbury, Maryland. Minumum requirements include a DVM or VMD degree from an accredited college/university or one recognized by the American Veterinary Medical Association plus five years post-doctoral experience in veterinary medicine, three years of which must have been in veterinary diagnostic laboratory specialty (some substitution for up to 2 years experience may apply). More extensive experience, advanced degrees, and American College of Veterinary Pathologists or American College of Poultry Veterinarians board certification or eligibility are highly desirable. The successful candidate will serve as Chief of Laboratory Services whose primary responsibility will be to provide expanded and improved diagnostic service to the Department's regulatory Animal Health Program and to the poultry industry of the state. MDA has begun a major effort to join the industry, the universities, and its counterparts in Delaware and Virginia to develop a regional cooperative poultry health system. Other responsibilities will include oversight of the operations of the laboratory which includes diagnostic service for some non-avian species, extensive interaction with other poultry health professionals, and statewide direction of poultry diagnostic activities at the Department's other laboratories. Salary range is $43,032-$56,336 plus benefits. The position is available immediately: starting date is negotiable. Contact Donna Ernsberger at 410-841-5810 to receive an application packet. Completed applications must be received by the Maryland Office of Human Resources no later than 3:00 pm (EST), Friday, February 13, 1998. EEO/ADA

Aquatic/Avian Veterinary Pathologists - The Department of Pathobiology, University of Connecticut has an opening for a Veterinary Pathologist interested in aquatic, wildlife and avian pathology. This is a tenure-track position at the Assistant Professor level and will be available August 1998. Candidate must have a DVM, VMD or equivalent, a PhD with a preference given to individuals certified (or eligible) by the American College of Veterinary Pathologists. The succesful candidate is expected to develop a research and diagnostic program in aquatic animal pathology, participate in the diagnostic pathology service and in undergraduate and graduate teaching. Excellent collaborative opportunities exist with the Northeastern Research Center for Wildlife Diseases, Wildlife Conservation Research Center, Biotechnology Center, Bureau of Aquaculture, Mystic Marine Life Aquarium and the Department of Environmental Protection. Please send a letter of interest, curriculum vitae and names of three references to: Dr. H. E. Whiteley, Dept of Pathobiology, University of Connecticut, 61 N. Eagleville Road., Storrs, CT 06269-3089. Phone 860-486-3736; Fax 860-486-2794. For full consideration, applications should be received by March 1, 1998. The search will remain open until a suitable candidate is identified. The University encourages applications from under-represented groups including minorities and women.

Assistant Professor - The Department of Poultry Science at Texas A&M University currently seeks qualified applicants for the position of Assistant Professor. Candidates must have a PhD with a strong background in nutrition and physiological biochemistry. It is also essential that the candidate demonstrate a research interest in poultry. The applicant must be able to teach undergraduate and graduate courses in nutrition. The individual must be capable of initiating and directing a research and grants program, publishing in scientific journals, and developing communication with the poultry industry of the state. Post doctoral training is preferred. The successful applicant is expected to develop an extramurally funded research program with strong focus on avian nutrition; teach one course each semester at the undergraduate or graduate level; and to serve on graduate student committees and develop an independent graduate student program. The applicant may serve on departmental, college, university and industry committees when his/her expxertise is needed. He/she must be able to relate to and communicate with the Texas poultry industry. A state of the art research and teaching center, and excellently equipped nutrition laboratory, and processing and further processing facilities are available for the candidates programs. The Department of Poultry Science has active graduate student programs and close ties with the College of Veterinary Medicine, Medical Health Science Center, the Intercollegiate Faculties of Nutrition, Food Science and Technology, Genetics and Molecular and Cell Biology, the Center of Animal Biotechnology and the Institute of Biosciences and Technology. Submit curriculum vitae with publication record, brief statement of research and teaching interests, and have three letters of recommendation delivered to: Dr. Lee Cartwright, Chairman, Search Committee, Department of Poultry Science, Texas A&M University, College Station, TX 77843-2472. Phone 409-845-4319; fax 409-845-1921; e-mail a-cartwright@tamu.edu. Texas A&M University is an equal opportunity employer.

AAAP/AVMA PRELIMINARY SCIENTIFIC PROGRAM

Monday July 27	Session A	Session B
8:00	*Smiley, Jeffrey R. & Daral J. Jackwood* Comparison of four pathogenic U.S. field isolates of IBDV serially passaged in chick embryos, and genetic stability determination of the VP-2 gene hypervariable regions between original field isolate and egg passaged virus	*Maurer, John J., Penelope S. Gibbs, & Richard Wooley* The contribution of *Escherichia coli's* genetic composition to its virulence as assessed using the chicken embryo model
8:15	*Yao, Kun & Vikram N. Vakharia* Generation of a nonpathogenic infectious bursal disease virus	*Gibbs, Penelope S., Richard E. Wooly, John J. Maurer, Thomas P. Brown, & Nancy L. Stedman* Application of the chicken embryo lethality assay for use in diagnosing pathogenic avian *Escherichia coli*
8:30	*El-Attrache, John, Pedro Villegas, Nilo Ikuta, & Miguel Ruano* Molecular characterization and identification of infectious bursal disease virus field isolates	*White, David G., Lisa Nolan, Michael Moen, & Michelle Kahan* Characterization of cytotoxic necrotizing factor producing avian *Escherichia coli*
8:45	*Wu, Ching-Ching, Aydemir Akin, Tsang Long Lin* A ribosome targeted to RNA polymerase gene of infectious bursal disease virus effectively cleaves and inhibits the viral gene expression	*Montgomery, Roy D., Carolyn R. Boyle, & Thomas L. Lenarduzzi* Chicks hatched from *Escherichia coli*-infected embryos
9:00	*Sellers, Holly, Pedro Villegas, Bruce Seal, & Mark Jackwood* Investigation into the potential reassortment of infectious bursal disease viruses	*Chin, Richard P., Joan S. Jeffrey, & Robert A. Norton* *In vitro* characterization of cellulitis-derived *E. coli* from California Broiler flocks
9:15	*Kim, In-Jeong & Jagdev M. Sharma* Functional characteristics of bursal T cells in chickens exposed to infectious bursal disease virus (IBDV)	*Jeffrey, Joan S., Richard P. Chin, & Robert A. Norton* A comparative study of the in vivo pathogenicity of cellulitis-derived E. coli in broiler chickens
9:30	*Hein, Ruud G. & Stephanie A. Mengel-Whereat* Possible consequences of late infectious bursal disease virus and/or chicken anemia virus infection on the immune system of the chicken	*Morishita, Teresa Y., Pyone Pyone Aye, Brian S. Harr, & Charles W. Cobb* *E. coli* colonization in the liver of broilers and the effect of supplemental probiotics
9:45	**Break** **9:45 AM - 10:15 AM**	**Break** **9:45 AM - 10:15 AM**
10:15	*Fitzgerald, Scott D., Sara J. Kingwill, Willie M. Reed, & Scott P. Taylor* Effects of polyomavirus challenge following combined infection with chicken anemia and infectious bursal disease viruses	*Shivaprasad, H.L. & R. Crespo* Attaching bacteria (*E. coli*) associated with enteritis in turkeys and chickens
10:30	*Gagic, Maja, Jagdev Sharma, Catherine St. Hill, & Hung-Yueh Yeh* Response of the embryos to simultaneous *in ovo* exposure to infectious bursal disease and Marek's disease viruses	*Ruble, Randall P. & Patricia S. Wakenell* Age related trends in antibodies to gram-negative core capsular antigen in vaccine naïve SPF chickens reared in isolation as measured by ELISA
10:45	*Lovell, Eric J.* *In-ovo* and day of age vaccination with inactivated oil emulsion ND and IBD vaccine	*Rajashekara, Gireesh, Alberto Back, Shirin Munir, & Kakambi V. Nagaraja* Studies on the role fimbriae in the pathogenesis of *Salmonella enteritidis* infection using fimbrial gene knockouts

11:00	*Leathers, Valerie L., Tim Jackson, & Kathy A Velek* Infectious bursal disease virus ELISA with improved range and detection of variants - field population study	*Guard-Petter, Jean* Hazard analysis of virulent *Salmonella enterica serovar enteritidis* by assay of outer membrane variation
11:15	*Kwon, Hyuk Moo, D.K. Kim, H.W. Seong, & Y.C. Park* Molecular biological characterization of infectious bursal disease virus isolated in Korea	*Gast, Richard K* An experimental infection model for comparing horizontal transmission of *Salmonella enteritidis* isolates of various phage types (4, 8, 13a, and 14b) in egg-type chickens
11:30	*Kelly, Tami F.* A retrospective study of the influence of the chicken infectious anemia virus on the overall performance of broiler flocks	*Dhillon, A. Singh, Oriki K. Jack, H.L. Shivaprasad, Dennis M. Schaberg, & Daina V. Bandli* Salmonella infection in broiler chicks
11:45	**AWARDS LUNCHEON** **11:45 – 2:00**	**AWARDS LUNCHEON** **11:45 – 2:00**
2:00	*Hoerr, Frederic J., Bruce McMurtrey, Lloyd Lauerman, & Lanqing Li* Application of a diagnostic application of an in situ direct PCR for chicken infectious anemia virus	*Promosopone, Benjamas, Teresa Y. Morishita, Pyone Pyone Aye, Charles W. Cobb, John R. Clifford, & Ardean Veldkamp* *Salmonella typhimurium* colonization in the crop, jejunum, and cecum of broilers and the effects of probiotics and antibodies
2:15	*Wade, Emma D., Mark W. Jackwood, & Deborah A. Hilt* Characterization of epitopes on the IBV spike glycoprotein using monoclonal antibodies produced against the Arkansas and Massachusetts serotypes	*Froyman, Robrecht, Charles L. Hofacre, Bruno Gautrais, & Carol Day* Reduction of Salmonella in broilers using normal gut flora in successive grow-outs
2:30	*Ruano, Jose Miguel, John El-Attrache, & Pedro Villegas* Correlation of a rapid plate hemagglutination assay with the RT-PCR test for identification of infectious bronchitis virus	*Mallinson, Edward T., Christian E. de Rezenda, Russel G. Miller, & Sammy W. Joseph* Influence of the availability of water on the growth of *S. enteritidis* and other Salmonella in poultry litter or manure
2:45	*Callison, Scott A., Mark W. Jackwood, & Deborah A. Hilt* Molecular identification and analysis of foreign isolates of infectious bronchitis virus strains: Comparison with U.S. Isolates	*Lee, M.D., Rahman, S.M., Maier, M.M., Henk, A.D.* The neuraminidase of *Pasteurella multocida* is a conserved antigen effective for vaccination against fowl cholera
3:00	*Naqi, Syed* Immune responses to IBV	*Aye, Pyone P., Teresa Y. Morishita, Elisbeth J. Angrick, & Brian S. Harr* A survey of *Pasteurella multocida* isolates in turkeys
3:15	**Break** **3:15 PM - 3:30 PM**	**Break** **3:15 PM - 3:30 PM**
3:30	*Villegas, Pedro, John El-Attrache, & Miguel Ruano* Protection of commercial infectious bronchitis virus (IBV) vaccines against an IBV variant strain from Georgia	*Olson, Leroy D. & Mark Wilson* DNA fingerprint patterns of *Pasteurella multocida* from the same turkey farm on the same and different years
3:45	*Franz, Gwenllyn M., Phyllis Walls, & Ruud Hein* Efficacy of a mild Arkansas vaccine in chickens infected with "Arkansas-like" infectious bronchitis virus isolates	*Luo, Yugang, John R. Glisson, & Mark W. Jackwood* Sequence analysis of *Pasteurella multocida* major outer membrane protein (OmpH) and application of synthetic peptides in vaccination of chickens against x-73 challenge

4:00	*Kapczynski, Darrell R., Mark W. Jackwood, & Deborah A. Hilt* Protection of chickens against infectious bronchitis virus challenge with a DNA vaccine containing the S1 glycoprotein gene	*Scott, Peter C. & K.G. Whithear* A new approach to fowl cholera using aroA mutants of *Pasteurella multocida* as live vaccines
4:15	*Cheng, I-Hsin Ning, Sylva M. Riblet, David L. Suarez, & Maricarmen Garcia* Construction of recombinant plasmid DNA coding for the glycoprotein gB of infectious laryngotracheitis virus and determination of the efficacy of expression in chicken cells	*Droual, Robert, H.L. Shivaprasad, Richard P. Chin, & Rocio Crespo* Respiratory disease in broiler flocks associated with *Bordatella avium*
4:30	*Garcia, Maricarmen, Sylva R. Riblet, & David L. Suarez* Comparison of sequences within the unique short (US) region of vaccine and field strains of infectious laryngotracheitis virus (ILTV) genome	*Lillehoj, Hyun S. & Kwang D. Choi* Molecular and functional characterization of a novel chicken cytokine: its role in gamma/delta T cell growth and coccidia disease resistance
4:45	*Plaza, Hamilton* Purification of infectious laryngotracheitis virus (ILTV) DNA with minimal cellular and mitochondrial DNA cross-contamination	*Venne, Daniel & Alain Villeneuve* The effect of oocyst counts and speciation on turkey results
5:00	**Adjourn**	**Adjourn**
Tuesday July 28	**Session A**	**Session B**
8:00	*Moore, Kristi M. & Robin W. Morgan* Progress using a yeast two-hybrid system to identify proteins interacting with the Marek's disease virus protein, Meq	*Rives, David V. & Donald B. Crumpler* Effect of turkey coronavirus infection on commercial turkey flock performance
8:15	*Lee, Lucy F. & Zhizhong Cui* Characterization of Marek's disease virus phosphorylated protein pp38	*Schultz-Cherry, Stacey L., Matthew Koci, Bruce Seal, & H. John Barnes* Examining the cause(s) of poultry enteric mortality syndrome
8:30	*Liu, Hsiao-Ching, Robert Silva, & Hans Cheng* Reconstitute an infectious Marek's disease virus using bacterial artificial chromosome	*Woolcock, Peter R. & H. L. Shivaprasad* Viruses associated with poult enteritis in California flocks
8:45	*Schat, Karel A., Z. Xing, & R.W. Morgan* Characterization of ICP4 proteins of Marek's disease virus	*Kelley, Laura A., Tom P. Brown, Doris H. D'Souza, AnaPatricia Garcia, & Saad Gharaibeh* Detection of naturally occurring turkey intestinal coronavirus (TCV) in turkey and bovine feces using RT-PCR
9:00	**Break** **9:00 AM - 9:15 AM**	**Break** **9:00 AM - 9:15 AM**
9:15	*Wu, Ping, Lucy F. Lee, & Willie M. Reed* Expression of MDV gH and gL in recombinant baculovirus-infected cells	*D'Souza, Doris H., Thomas P. Brown, Laura A. Kelley, & Saad Gharibeh* Analysis of RT-PCR products obtained using S1 primers for the detection and comparison of turkey coronavirus isolates (TCV)
9:30	*Reddy, Sanjay K & Richard L. Witter* Marek's disease virus replication rates studied by quantitative-competitive PCR	*Guy, James S., H.J. Barnes, J.B. Breslin, & L.G. Smith* Comparison of immunohistochemistry and polymerase chain reaction (PCR) procedures for diagnosis of turkey coronavirus infection

9:45	*Miles, Andrea M. & Robin W. Morgan* Identification of molecular differences among serotype I Marek's disease virus strains	*Garcia, AnaPatricia, Thomas P. Brown, Doris H. D'Souza, Laura A. Kelley, & Saad Gharaibeh* Detection of bovine-origin coronavirus using DNA in situ hybridization
10:00	*Witter, Richard L., Isabel M. Gimeno, Willie M. Reed, & Larry D. Bacon* Induction of acute transient paralysis by virulent Marek's disease virus	*Brown, Tom P., Doris H. D'Souza, Laura A. Kelley, Saad Gharibeh, & AnaPatricia Garcia* Production of mouse monoclonal antibodies reactive for turkey intestinal coronavirus (TCV) isolates and their use in TCV detection
10:15	*Gimeno, Isabel M., Richard L. Witter, & Willie M. Reed* Pathogenesis of transient paralysis syndrome in Marek's Disease: histopathology and clinical lesions	*Gharaibeh, Saad M., Tom P. Brown, Laura A. Kelley, Doris H. D'Souza, & AnaPatricia Garcia* Immunohistochemical localization of turkey intestinal coronavirus (TCV) in histologic sections from experimentally infected turkey poults
10:30	**Business Meeting** **10:30 AM - 12:00 Noon**	**Business Meeting** **10:30 AM - 12:00 Noon**
12:00	**Lunch** **12:00 Noon - 1:00 PM**	**Lunch** **12:00 Noon - 1:00 PM**
1:00	*Garcia-Comacho, Lucia A., Denise I. Bounous, Steve F. Poet, & Randolph L. Brooks* Immunomodulation of NK-like cell activity and its protective effects on Marek's disease	*Stringham, S. Michael, Jean-Pierre Vaillancourt, Donna K. Carver, & H. John Barnes* An assessment relating pest densities with PEMS and turkey coronavirus outbreaks in North Carolina turkey flocks
1:15	*Sharma, Jagdev M., Maja Gagic, Catherine St. Hill* *In ovo* vaccination of chickens with vaccines containing multiple antigens	*Carver, Donna K., Jean-Pierre Vaillancourt, & S. Michael Stringham* Descriptive epidemiology of coronavirus in commercial turkeys in North Carolina
1:30	*Avakian, Alan P., Don Grosse, Chris Williams, Tom Bryan, Pat Wakenell, & Jason Fryer, et al* Efficacy of Marek's vaccination in ovo	*Wages, Dennis P., James S. Guy, & H. John Barnes* The use of controlled exposure of turkey coronavirus to control mortality associated with PEMS
1:45	*St. Hill, Catherine & Jagdev M. Sharma* Localization of HVT in embryonic tissues following *in ovo* vaccination	*Reynolds, Donald L., Serine Akine, Ali Akbar, & Joan Desper* Methods for prevention and control of turkey stunting syndrome
2:00	*Wakenell, Patricia S. & Randall Ruble* Effect of *in ovo* vaccine delivery route on HVT-SB1 efficacy and viremia	*Vaillancourt, Jean-Pierre A., Donna K. Carver, & Mike Stringham* Biosecurity in PEMS affected regions: measures taken and compliance
2:15	*Ratenschlein, S., Yeh, H.-Y., & Sharma, J. M.* *In ovo* vaccination of turkeys with recombinant fowl pox virus (FPV) vaccines against Newcastle disease virus (NDV) infection	*Barnes, H. John, James S. Guy, J. Todd Weaver, & Jean-Pierre Vaillancourt* Susceptibility of chickens to poult enteritis and mortality syndrome
2:30	*King, Daniel, & Bruce Seal* Effects of in ovo inoculation of low virulence Newcastle Disease virus strains on hatchability and chick viability	*Cardona, Carol J. & Willie Reed* Protection against challenge with virulent hemorrhagic enteritis virus (HEV) by a recombinant fowlpox virus expressing the hexon of HEV
2:45	**Break** **2:45 PM - 3:00 PM**	**Break** **2:45 PM - 3:00 PM**
3:00	*Williams, Susan M., Aly M. Fadly, Y Willie M. Reed* Pathogenesis of avian leukosis virus subgroup J in four lines of white leghorn chickens	*Fulton, Richard M., Willie M. Reed, & E. A. Potter* Effect of *Escherichia coli* in hemorrhagic enteritis virus vaccinated turkeys

3:15	*Fadly, Aly M. & Robert F. Silva* Biological characterization of subgroup J avian leukosis viruses isolated from meat-type chickens experiencing myeloid leukosis at various ages	*Hawk, Michele V., James S. Guy, D. Rector, & L. Munger* Pancreatic necrosis associated with adenovirus in broilers
3:30	*Silva, Robert F. & Aly M. Fadley* Molecular characterization of envelope genes from subgroup J avian leukosis virus field isolates	*Riddell, Craig* Inclusion body hepatitis in broilers less than two weeks old
3:45	*Brown, Tom P., Nancy Stedman, & Laura A Kelley* Histopathological lesions in chicken embryos infected with avian leukosis virus -subgroup J (ALV-J)	*Ortiz, Ariel M., Ernesto P. Soto, & Horacio J. Ramirez* Incidence and control of inclusion body hepatitis in Mexico
4:00	*Goodwin, Mark A. & Scott Hefner* "Myeloid leukosis" is a misnomer: Multiple tumor types are found in chickens that have subgroup J ALV infections	*Linares, Jose A., William L. Wigle, & Thomas L. Lester* Type I adenovirus salpingitis in quail breeders
4:15	*Stedman, Nancy L., Tom P. Brown, Denice I. Bounous, Randy L. Brooks,& Laura A. Kelley* Function of lymphocytes in broiler progeny from breeder flocks infected with avian leukosis virus subgroup J (ALV-J)	*Achen, Maya, Teresa Y. Morishita, & Elizabeth C. Ley* Shedding and colonization of *Campylobacter jejuni* in broilers from day of age to slaughter
4:30	*Barbour, Elie K., Mostafa Bouljihad, Wassim Sakr, Ali Eid, & Bassam Hamdar* Dynamics of transforming growth factor B2 and P27 of avian leukosis virus in lymphoid leukosis susceptible and resistant chicken breeders	*Khan, Mazhar I., Amin A. Fadl, & Kumara S. Venkitanarayanan* Salmonella and Campylobacter specific multiplex PCR
4:45	*Tripathy, Deoki N. & Taylor Spangaler* Comparative evaluation of virus isolation and polymerase chain reaction (PCR) for diagnosis of fowlpox	*Nesbit, Elizabeth G., David W. Dreesen, & Margie L. Lee* The use of molecular genetics to study the epidemiology of *Campylobacter jejuni* in broiler houses
5:00	**Adjourn**	**Adjourn**
Wed July 29	**Session A**	**Session B**
8:00	*Perdue, M. L., & D. Suarez* Expression and measurement of function of cloned avian influenza (AI) virus genes in chicken LMH cells.	*Whetzel, Patricia L.,& Dohms, John E.* Use of transposon mutagenesis to identify *Mycoplasma gallisepticum* virulence factors
8:15	*Suarez, David, & Michael Perdue* The effect of different promoters for intramuscularly injected DNA vaccines in chickens	*Dohms, John E.* The local and systematic antibody response of chickens to two *Mycoplasma gallisepticum* cytadhesins
8:30	*Munir, Shirin, David A. Halvorson, Gireesh Rajashekara, & Kapur, Vivek* Development of turkey herpes virus live recombinant vaccine for avian influenza	*Trampel, Darrell W., & Zaher A. Radi* Avidin-biotin immunohistochemical detection of *Mycoplasma gallisepticum* antigens in turkey respiratory tissues
8:45	*Swayne, David, Michael L. Perdue, & David L. Suarez* An H5N1 influenza virus isolated from a child in Hong Kong has lung trophism and high pathogenicity for chickens	*Lockaby, Susan B., Frederic J. Hoerr, Lloyd H. Lauerman, & Bruce P. Smith* Quantitative polymerase chain reaction for detection of *Mycoplasma synoviae* in chick tracheal organ culture

9:00	*Ziegler, Andre F., Sherrill Davison, Helen Acland, & Robert J. Eckroade* Characteristics of H7N2 (nonpathogenic) avian influenza virus infections in commercial Pennsylvania layers, 1997	*Opengart, Ken N., & John E. McCarty* The use of an attenuated *Mycoplasma gallisepticum* (MG) Vaccine (TS-11) to control a widespread MG outbreak in an integrated poultry company
9:15	*Davison, Sherrill, Andre F. Ziegler, & Robert J. Eckroade* A new diagnostic test for avian influenza	*Turner, Kathy S., Stanley H. Kleven, & George N. Rowland* Protection against *Mycoplasma gallisepticum* R strain challenge using live ts-11 vaccine
9:30	**Break** **9:30 AM - 9:45 AM**	**Break** **9:30 AM - 9:45 AM**
9:45	*Panigrahy, Brundaban, Dennis A. Senne, Janice C. Pedersen, & Robert K. Edson* Avian pneumovirus (APV) infection: a new disease of turkeys in the United States	*Sprenger, Stephanie J., Alberto Back, Daniel P. Shaw, Kakambi V. Nagaraja, & David A. Halvorson,* The effect of age on the reproduction of disease due to *Ornithobacterium rhinotracheale*
10:00	*Halvorson, David, K.V. Nagaraja, Sagan Goyal, V. Icapur, Dan Snauv, & Arshad Dan* Pneumovirus - progress on control	*Silim, Amer N.* A severe respiratory problem in turkey breeder flocks associated with *Ornithobacterium rhinotracheale*
10:15	*Julian, Richard J., & Gonzalo Diaz* The relationship between hemoglobin structure, oxygen affinity, avian organic phosphate activity and ascites syndrome in meat-type chickens	*Linares, Jose A., & William L. Wigle* *Staphylococcus aureus* pneumonia in turkey poults
10:30	*Ter Huurne, Agnes A. H. M., Jan M. A. Pol, Dirk J. van Roozelaar, Gerard L. Kok, & Thaweesak Songserm* A comparative sequential study of the pathogenesis of malabsorbtion syndrome in broilers	*Crespo, Rocio, Susan M. Stover, Robert Droual, & Richard P. Chin* Effect of body weight on the incidence of femoral fractures in young adult male turkeys
10:45	*Sandhu, Tirath S. & Samia A. Shawky* Immunosuppressive effects of an atypical duck enteritis virus infection in white pekin ducklings	*Karunakaran, Daniel & Tim Cummings* Turkey flock health monitoring program
11:00	*Sundram, Yoga K. & Mark A. Goodwin* Fibrinopurulent necrotizing fowl poxvirus dermatitis in broilers condemned at processing	*Sander, Jean E., & Jeanna L. Wilson* Comparison of surface contamination of different slat materials used in broiler breeder houses before and after decontamination
11:15	*Norton, Robert A., Sacit F. Bilgili, & Kenneth A. Macklin* Avian cellulitis in broiler chickens - a research update	*Clark, Steven R. & Thim K. Cheng* Efficacy of Lasalocid against different stages of *E. melengrimads* in the turkey
11:30	**Adjourn**	**Adjourn**

PRELIMINARY POSTER PROGRAM

1. **Jackwood, M.W., Hilt, D.A.** Molecular characterization and virus-neutralization experiments on Arkansas-"like" isolates of IBV

2. **Skeeles, J.K., Newberry, L.A., Hopkins, B.A., Beasley, J.N.** Comparison of proventricular lesions from chickens from field submissions with those induced by experimental infectious bursal disease virus infection

3. **Kibenge, F.S., Qian, B., Nagy, E., Cleghorn, J., Wadowska, D.** Assembly of virus-like particles with IBDV VPX in insect cells

4. **Newberry, L.A., Baxter, M.A., Martin, E.M., Kim, K.S., Skeeles, J.K.** Indirect immunogold labeling of infectious bursal disease virus in the proventriculus following experimental challenge

5. **Jackwood, D.J., Sommer, S.E.** Molecular identification of international infectious bursal disease virus strains: Comparison of vaccine viruses and viruses from diseased birds

6. **Abbassi, H., Coudert, F., Cherel, Y., Fort, G., Mancassola, R., Brugere-Picoux, J., Naciri, M.** Effect of infectious bursal disease virus (IBDV) on the development of acquired immunity to *Cryptosporidium baileyi*

7. **Dren, C.N., Koch, G., Kant, A., Hartog, L., Noteborn, M.** Studies on the pathogenesis of chicken anemia virus infection

8. **Nagaraja, K.V., Back, A., Munir, S., Rajashekara, G., Halvorson, D.** Use of integration plasmid to generate site directed mutations in *Salmonella enteritidis* genome

9. **Ono, Y., Mima, K., Sato, K., Nakamura, M.** Re-evaluation and efficacy of oil-adjuvant *Salmonella enteritidis* bacterin

10. **Horne, S.M., Giddings, C.W., Nolan, L.K., Young, K.D., Nguyen, H.V.** Intracellular survival of the avian pathogen *Salmonella typhimurium* var. Copenhagen is facilitated by the FK506 binding proteins

11. **Roland, K.L., Curtiss, III, R., Kane, S.M., Sizemore, D., Campbell, M.** Efficacy of gene-deleted mutant *Salmonella typhimurium* vaccine strains expressing *Escherichia coli* 078 lipopolysaccharide to protect against *E. coli* challenge in chickens

12. **Holt, P.S., Stone, H.D., Gast, R.K., Greene, C.R.** Applying the agar gel precipitin test as a rapid method to detect antibodies against *Salmonella enteritidis* in egg yolks from infected flocks

13. **Munger, L.L., Barnes, H.J.** Tumors associated with avian leukosis serotype J virus

14. **Spencer, J.L.** Application of ELISA for measuring resistance of embryonated eggs to avian leukosis virus

15. **Romero, C.H., Chung, H.Y.** Amplification and restriction analysis of a highly conserved gene of Marek's disease virus to differentiate strains of serotypes 1,2, and 3

16. **Lin, T.L., Loa, C.C., Wu, C.C., Bryan, T.A., Porter, R.E.** Development of enzyme-linked immunosorbent assay for detection of turkey coronavirus

17. **Wooley, R.E., Medders, W.M., Gibbs, P.S., Shotts, E.B.** Mutation rate of avian coliform bacteria pressured with fluoroquinolones

18. **Nolan, L.K., Ebert, J.O., Horne, S.M., White, D.G.** Distribution of *iss* sequence among different avian *Escherichia coli* clones

19. **Matsumoto, M., Awan, M.** Systematic bacterial infections in broilers of market age

20. **Gimeno, I.M., Gonzalez, M., Flores, J.M., Pizarro, M.** Pathological findings in a case of mycobacteriosis in a commercial layer flock from Spain

21. **Back, A., Nagaraja, K.V., Rajashekara, G., Halvorson, D.A.** Selection and use of a highly fimbriated stain of *Salmonella typhimurium* for vaccine

22. **Yazwinski, T.A., McNaughton, J.L., Sims, M.D., Chapman, H.D., Tucker, C.A., Grant, R.J., Schwartz, R.D.** Efficacy of Fenbendazole against nematode parasites of turkeys – combined field and dose confirmation studies

23. **Cummings, T.S., Savage, S.** Feed withdrawal effects on the turkey intestine

24. **Carver, D.K., Vaillancourt, J., Stringham, S.M., Barnes, H.J.** Risk factors associated with excess mortality in turkey flocks raised in PEMS affected regions

25. **Rowland, G.N., Halper, J.T., Hu, W., Foutz, T.L., Kisaalita, W.S., Griffin, A., Smith, J.** Expression of collagen type III in the avian tendon

26. **Foley, S.L., Horne, S.M., Nolan, L.K.** Expression of *Iss* protein

27. **Mirsalimi, S.M., Gharagozoloo, M.J.** Growth and histological examination of an ovarian tumor inducing reproductive organ growth and secondary sex characteristics at 8 weeks of age in commercial broiler breeder hens

28. **Brockus, C.W., Jackwood, M.W., Harmon, B.G.** Characterization of β-defensins in chickens and turkeys

29. **Yeh, H.Y., Sharma, J.M., Winslow, B., Junker, D.** *In vitro* study of effects of gamma interferon on chicken immune cell functions

30. **Sarma, G., Karaca, K., Fan, H.** Efficacy studies on turkey pox virus vaccine

31. **Fan, H.H., Sarma, G., Karaca, K.** Efficacy and safety of live hemorrhagic enteritis virus vaccine in turkeys

32. **Rimler, R.B., Kunkle, R.A.** The Influence of *Bordetella avium* infection on bacteria-induced immunity to fowl cholera

33. **Maurer, J.J., Jun, J., Maier, M.** Development of probes specific to pathogenic avian *Escherichia coli* using random amplified polymorphic DNA

34. **Terzich, M., Quarles, C.L., Kirn, B.** Poultry litter treatment-PLT as an integral part of an on-farm HACCP based pathogen control program

35. **Bounous, D.I., Quist, C.F.** Hematologic and biochemical blood parameters in healthy wild turkey poults

36. **Tessier, M., Boulianne, M., Helie, P.** A case of mycotic discospondylitis in a broiler chicken flock in Quebec

37. **Mallia, J.G., Hunter, B., Vaillancourt, J.P., Martin, S.W., McEwen, S.A.** Intra- and inter-rater agreement in a case control study of turkeys condemned for cyanosis

38. **Klopfenstein, C., Lahaye, L., Boulianne, M.,** Description of the evolution of major causes of broiler chicken condemnations between 1991 and 1997 in Quebec

39. **Hofle, U., Gonzalez, M., Castano. M., Pizarro, M.** Hepatic trematodiasis (Brachylecitum Sp.) in free-living red partridge in Spain

40. **Carr, L.E., Brodie, H.L., Hanson-deGraft, J., Mallinson, E.T., Joseph, S.W.** Animal mortality treatment by composting

41. **Naciri, M., Abbaassi, H., Coudert, F., Cherel, Y., Brugere-Picoux, G.** Experimental reproduction of renal cryptosporidiosis *(C. boulerg)* in SPF chickens after oral inoculation of parasite

42. **Ruble, R.P., Wakenell, P.S.** Gender related vocalization in roosters: Pharmacologic modification and potential side effects

43. **Smeltzer, M.A.** Clinical and epidemiological features of diseases transmitted and associated with spiking male programs

44. **Tablante, N.L., Hueston, W.D., Brunet, P.Y., Odor, E.M., Salem, M.** Risk factors associated with early respiratory disease complex in broiler chickens

45. **Boulianne, M., Tessier, M., Messier, S.** A transversal study: necropsy and microbiology of broiler chicken carcasses condemned at slaughter plant for "septicemia-toxemia"

46. **Hofle, U., Pizarro, M., Blanco, G.M.** Renal pathology of birds of prey

47. **Aye, P.P., Morishita T.Y., Grimes, S., Skowronek, A., Mohan R.** Encephalomalacia in farm-raised emus

48. **Schasteen, C.S.** Poultry treatment with acidified sodium chloride as an antimicrobial spray or dip solution: results of eight university-based studies

49. **Koch, G., Van Roozelaar, D.J., Balk, F., Terr Huurne, A.A.M.H.** Differentiation of virulent and non-virulent strains of Newcastle disease virus within 24h by polymerase chain reaction

50. **Brown, C.C., King, D.J., Seal, B.S.**
Pathogenesis of varying strains of Newcastle disease virus, as studied by *in situ* hybridization