



AMERICAN ASSOCIATION OF AVIAN PATHOLOGISTS

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AAAP WINTER NEWSLETTER

FEBRUARY 25, 1993

ENCLOSURES FOR YOUR REVIEW

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1993 AVMA-AAAP MEETING IN MINNEAPOLIS

The preliminary program for the **NEWLY EMERGING AND RE-EMERGING AVIAN DISEASES: APPLIED RESEARCH AND PRACTICAL APPLICATIONS FOR DIAGNOSIS AND CONTROL** symposium and the preliminary AVMA-Avian Medicine Scientific program is enclosed. The scientific program begins with the Symposium and the poster paper session on Sunday, July 18 and the platform papers on Monday, July 19 and goes through Wednesday noon. Please note that there will be dual sessions this year. All of these sessions will be held in the Minneapolis Convention Center. The Board meetings and AAAP committee meetings will be held in the Minneapolis Hilton. If money is no object, that may be the best place to stay.

Our **AWARDS LUNCHEON** will be held on Monday, July 19 from noon to 2. Luncheon tickets must be purchased from this office prior to the meeting. A special mailing will be done in May to remind you.

The AAAP Board of Directors will meet all day Friday, July 16 and Saturday, July 17 and again Wednesday morning. Any member having business to bring to the Board is welcome. Those members having special issues needing more time might consider contacting the Business Office by April 1, 1993 to schedule the issue on the agenda.

Continuing Education credits are available for those attending the scientific program. If you wish to obtain these credits, you **must** see Dr. Eckroade at the meeting and give him a business card. Please do not call after the meeting and ask me to remember you were there.

AVMA MEETING RESERVATION FORMS

AVMA meeting registration forms are automatically mailed to all AVMA members in good standing and program participants. **ASSOCIATE MEMBERS OF AAAP AND NON AVMA MEMBERS SHOULD WRITE TO MR. SCHLAX TO OBTAIN REGISTRATION FORMS.**

Mr. Robert Schlax
Convention Manager
AVMA
1931 North Meacham Road
Suite 100
Schaumburg, IL 60173



AWARDS NOMINATIONS

Just another reminder to submit nominations for AAAP awards. Nominations are due by April 16, 1993.

Friends of Mike Rosenstein may wish to write a note or call to say hi to him. He was diagnosed as having carcinoma of the esophagus a few days after returning from the AAVLD/USAHA meeting in November. Mike says that he is doing well and would enjoy hearing from friends. The story that he has a direct telephone line to President Clinton is untrue.



ARCHIVES

Contributions from individuals have been slim. If you have any old AAAP files that would include Correspondence, meeting minutes, bylaws, publications (when authored by the organization), information on conferences and symposia, and photographs (when individuals are identified), please consider sending them to: Manuscripts Curator, Dept of Special Collections, 403 Parks Library, Iowa State University, Ames, IA 50011.

OBITUARIES

Dr. Walter White Sadler, 78, a founding faculty member of the University of California, Davis, School of Veterinary Medicine, died Saturday, October 3, 1992, at his home in Davis, Calif. He had suffered from polio for a number of years. He was born in Biloxi, Mississippi, on December 3, 1913.

Dr. Sadler received his Bachelor of Science degree in 1938 and his Doctor of Veterinary Medicine degree in 1939 from Texas A&M University, College Station, Texas. He also earned a Master of Public Health degree from UC Berkeley in 1958. He joined the UC Davis faculty in 1950 as a poultry pathologist and specialist in food safety.

As a public health veterinarian and authority in the field of food microbiology, Dr. Sadler was widely recognized as a pioneer in the field of veterinary epidemiology. He contributed greatly to the understanding of food-borne disease, particularly in the area of Salmonella infections from poultry to humans.

Dr. Sadler was instrumental in the founding of the School of Veterinary Medicine's Department of Epidemiology and Preventive Medicine which combined the disciplines of veterinary public health, preventive medicine, epidemiology, microbiology and avian medicine. He served as chair of the department from 1970 to 1977.

He also played a major role in the design and management of the school's Master of Preventive Medicine (MPVM) program, which he directed from 1977 to 1983. This professional degree program was launched in 1967 to train veterinarians employed in public health including food safety and regulatory roles in the fields of livestock disease investigation, control and eradication.

He was a member of the American Veterinary Medical Association, the

American College of Veterinary Preventive Medicine, the American Association of Avian Pathologists and the Institute of Food Technologists.

Dr. Herb Carlson died in the Victoria Hospice on August 13, 1992 after a lengthy battle with prostatic carcinoma. Herb was born in Calgary, Alberta on November 28, 1919. Following two years of pre-veterinary training at the University of Washington at Pullman, he entered the Ontario Veterinary College then affiliated with the University of Toronto, graduating with the V.S. and DVM degrees in 1946.

He served with the Alberta Veterinary Services Branch, Alberta Department of Agriculture. Here he helped establish the Auction Market Inspection Program, then moved into poultry diagnostics, becoming Head of the Poultry Diseases Section in 1961. Always interested in furthering his education, he audited courses in pathology at the College of Medicine, then undertook studies leading to an MSc. degree in 1962 at the College of Agriculture, University of Alberta.

A long time proponent and worker for the establishment of a Western Veterinary College, he joined the faculty of the Western College of Veterinary Medicine as Associate Professor of Pathology in 1965 and in 1968 accepted this rank at the Ontario Veterinary College, University of Guelph. At both Universities Herb was active in poultry and comparative pathology, undergraduate and graduate teaching and research including electron microscopy.

Dr. Carlson was awarded the MRCVS by the Royal College of Veterinary Surgeons, London, England while on a one year sabbatical leave to the Commonwealth Bureaux Library and British Library in Weybridge preparing for a book on Avian Pathology.

In 1977, Herb returned to Alberta to become the first Head of the

Aidrie Veterinary Laboratory,
Alberta Department of Agriculture.

In 1980, he accepted the position of Director of the Poultry Branch, with the B.C. Ministry of Agriculture and food at Victoria, continuing until his retirement in, 1983.

Herb was a self-effacing man who made friends with all who came in contact with him at work or at play. He was a good sportsman, excelling in basketball and golf and also an excellent and entertaining speaker. It was always a joy to hear one of his delightful, well balanced "stories". He was an outstanding and faithful husband, father, colleague and friend. He will be missed!

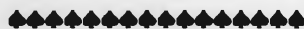
Dr. Frank Craig, 71, of Salisbury, Md died Friday, October 23, 1992 at Peninsula Regional Medical Center. He was a retired senior vice president of Technical Services for Perdue Farms Inc. Dr. Craig earned his B.S. and M.S. degrees at the North Carolina State University. He earned his doctorate in veterinary medicine at the University of Georgia, graduating magna cum laude. Prior to joining Perdue, Dr. Craig was a full professor of poultry science at North Carolina State. Dr. Craig was lauded many times over by professional organizations, fellow academicians and leaders of government; he was respected and revered by all. One of his most outstanding achievements was that of being recognized as the first industry recipient of the USDA's Distinguished service Award for public service.

Dr. Chester Lee, 89, of Ames, IA died of cancer Thursday at the Mary Greeley Medical Center. He received his veterinary medicine degree from Iowa State University in 1927. He became the first extension poultry pathologist at Iowa State in 1945 where he remained until his retirement in 1972.



FOR YOUR INFORMATION

Proceedings of the Third International Symposium on Avian Influenza, held May 27-29, 1992 at the University of Wisconsin-Madison are available at a cost of \$20 (US), including postage and handling. The Proceedings include 450 pages of all of the symposium manuscripts and session discussions. Requests with a check to the US Animal Health Association should be sent to: US Animal Health Association, 1610 Forest Ave, Suite 114, PO Box K227, Richmond, VA 23288.



ANIMAL RESEARCH PROTECTION ACT - On August 26, 1992 President Bush signed into law Public Law 101-624 or the Farm Animal and Research Facilities Protection Act. The following is a summarization of this law. The prohibited acts include: stealing or unauthorized releasing any animal from a research facility; damaging, vandalizing or stealing any property in or on a research facility; the breaking and entering of a research facility with the intent to destroy, alter, duplicate or taking possession of records, data, materials, equipment, or animals; and the aiding, abetting, or inducing of any of the above acts. This law has similar provisions covering animal enterprises which are defined as a commercial or academic enterprise that uses animals in a zoo or aquarium, or for food or fiber production. The penalty for the violation of this law ranges from a fine of \$5,000 - \$25,000 and/or 1 - 20 years of imprisonment, depending

on the severity of the violation. Any person convicted of the violation of this law is to be ordered to make full restitution to the research facility for damages. Any research facility injured in its business or property because of violation of this law has the right to recover actual and consequential damages, and the cost of the suit (attorney's fees), from the person or persons in violation of this law.

The Animal Welfare Committee trusts that knowledge of this federal law will help the AAAP researchers conduct their work in a less threatening environment. If anyone has any particular questions about the law, please call or write.

Respectfully submitted,
John Schleifer, DVM, MS
Chmn., Animal Welfare Resource
Committee

AMERICAN BOARD OF VETERINARY PRACTITIONERS-AVIAN PRACTICE: September 1994, Reno, NV, in conjunction with the annual meeting of the Association of Avian Veterinarians (AAV). Annual certification examination for ABVP-approved candidates. Each applicant for the certification examination must be a graduate of an AVMA-accredited college, have completed an approved residency program or 6 years of approved practice, and be a licensed veterinarian. Applicants are asked to provide letters of reference, evidence of continued study that will document advanced competence in veterinary medical practice, and two detailed manuscripts in a specific format. Completed applications, fees, and supporting material for new applicants must be received no later than August 1, 1993 for the examination at the AAV meeting in September 1994. For application forms and further information, send a self-addressed, stamped envelope to Dr. Bill Utroska, Executive

Secretary, American Board of
Veterinary Practitioners, 100
Guthrie, Southaven, MS 38761.

DISEASES OF POULTRY PLANS FOR THE 10TH EDITION

Although the 9th Edition of Diseases of Poultry was published only two years ago, an Editorial Committee for the 10th Edition has already been appointed by Dr. Bill Chase, President of the AAAP. It consists of Drs. H. John Barnes, Charles W. Beard, Larry R. McDougald, Y. M. Saif, and B. W. Calnek (Chairman). Early work on the 10th Edition is already beginning. The committee seeks input from those who use the book:

1. Errors. Typographical errors, errors of omission, and errors of fact all need to be identified. A good way to help us is to make a photocopy of the page on which the error is found with the correction noted.

2. Ideas and suggestions. As we consider the content, style, and format, recommendations from users are welcomed. This could include suggestions regarding new subject matter that should be included (or old material that is no longer relevant and could be dropped), changes in emphasis (either more or less), or manner of presentation.

3. New or replacement photos for illustrations. We are anxious to have the best figures possible. Candidate photos are welcome, and if used, will be properly credited.

4. Reference material. If there is source material that apparently has not been referred to in the present edition, it could be by conscious decision by the author, or perhaps it had not come to their attention. To avoid the latter, suggestions that can be passed on to the author(s) by the editorial committee are welcome.

5. Other. Any other suggestions that readers think would improve the quality and usefulness of the book would also be appreciated.

Suggestions, corrections, etc., should be sent to: B. W. Calnek, Department of Avian and Aquatic Animal Medicine, College of Veterinary Medicine, Cornell University, Ithaca, NY 14853 [FAX: (607) 253-3369]. Those received before July, 1993 will be most useful, since the Committee will be meeting at the AVMA meeting in Minneapolis. Thanks for your help.



COMMITTEE REPORTS

DISEASES OF WILD BIRDS COMMITTEE

Quarterly Wildlife Mortality Report. The following highlights mortality reported to the National Wildlife Health Research Center (NWHRC) from April to June 1992.

Eight duck plague outbreaks were confirmed this quarter in 5 states; all outbreaks involved muscovy and other captive reared ducks. Outbreaks occurred at a variety of locations that included a game farm that raises muscovy and mallard ducks for sale/release, a tidal creek, a suburban housing area lake, a hospital lake, a farm and a large municipal reservoir. At 6 sites, extensive site disinfection and removal of all waterfowl was completed; these sites will continue to be monitored for mortality through next spring at which time sentinel ducks will be placed on the areas to monitor for evidence of duck plague virus.

At least 30 lesser scaup succumbed from Sphaeridiotrema globulus infection in Lake Michigan near Chicago. No other waterfowl were known to be infected but there were only few diving ducks present in the area. Dabbling ducks and geese in the area most likely were not feeding on snails, the most common intermediate host for this

trematode. Sphaeridiotrema was also diagnosed as the cause of death for waterfowl on Brown's Lake in Montana. The disease has previously occurred in both states.

Mortality occurred during late May in purple martins across Kansas, Texas, Missouri and Arkansas. The primary diagnostic finding was emaciation. It is believed the birds died of starvation and mild hypothermia caused by harsh spring weather conditions.

SCWDS reported three mortality events suspected to be a result of exposure to toxins. In Virginia, doves and grackles died following application of Furadan to a nearby agricultural field. Hawks, a gray fox and a raccoon are suspected to have died in South Carolina following ingestion of Temik. The Laboratory of Wildlife Disease Research in Gainesville, Florida, reported Dursban toxicosis in cattle egrets in Alachua County, Florida; ingesta contained crickets.

Approximately 135 common flickers and sora rails were found along the shoreline of Lake Michigan. Mortality is suspected to be storm related, although no other species were found.

Quarterly Wildlife Mortality Report. The following highlights mortality reported to the National Wildlife Health Research Center (NWHRC) from July through September 1992.

Newcastle Disease is the suspected cause of mortality at numerous sites this quarter in the North Central and Great Lakes States. On June 24, NWHRC received reports of greater than expected morbidity and mortality in a double-crested cormorant rookery in Marsh Lake, Minnesota. Cormorant mortality was also detected June 26 in cormorant rookeries on Snake and Little Gull Islands in Green Bay, (Lake Michigan) Michigan. On July 7, NWHRC isolated Newcastle disease virus (NDV) from the cormorants at the Marsh Lake site, and Michigan State University (MSU) reported the isolation of NDV from Lake Michigan

cormorants. The USDA National Veterinary Services Laboratory (NVSL) in Ames, Iowa confirmed that NDV isolates from NWHRC and MSU were velogenic neurotropic NDV. Mortality continued to be reported and carcasses were submitted throughout July and August. NDV was isolated by the Canada Cooperative Wildlife Health Center from cormorants collected on several islands in the North Channel and Georgian Bay of Lake Huron, Canada. NVSL also confirmed the isolation of velogenic neurotropic NDV from a flock of 26,000 turkeys in North Dakota near an area of cormorant mortality at Devil's Lake; the turkey flock was depopulated. NVSL determined that the turkey isolate was the same strain of virus isolated from cormorants in Minnesota and Michigan. Additional epizootics, suspected to be NDV were reported in the Central Flyway States of North and South Dakota and Nebraska and in the Mississippi Flyway, the Apostle Islands in Wisconsin. A confirmed diagnosis of NDV required virus isolation; NDV was considered "suspect" in mortality events involving birds with clinical signs and histologic lesions suggestive of the disease, but the virus was not isolated. NDV was isolated from double-crested cormorants only, even though white pelicans, gulls and terns died during the same time period in nearby areas and demonstrated similar clinical signs as cormorants. The cause of mortality in these species was undetermined, although equivocal histopathology in two pelicans suggests a possible central nervous system disease. Salmonella typhimurium and Salmonella typhimurium (copenhagen) were also isolated from several cormorant and white pelican carcasses. Only in cormorants were these bacteria considered to be contributory to morbidity. Control efforts in the Central and Mississippi Flyways included carcass pickup and disposal on the nesting islands, decontamination and disinfection of

all equipment and clothing used in investigations and control efforts, and cutting and/or burning vegetation on islands where feasible.

Botulism losses were relatively low this year in both number of outbreaks and total losses. Botulism occurred in a variety of environmental conditions. Mud Lake, Minnesota, a large lake formed by a dam, was being drawn down to accommodate spring rains; at Klamath NWR in California waterfowl died on a recently flooded field; at Lake Elsinore, California, botulism occurred following an algae and fish die-off; and at Upper Mississippi NWR in Wisconsin, ducks died adjacent to a restoration project.

Over 150 laughing gulls died under unusual circumstances in a Maryland freight shipping yard. Dock workers found sick and dead gulls piled up in between boxes. Two birds examined histologically had kidney lesions suggestive of exposure to a toxin. Brain cholinesterase levels appeared within the normal range for most gulls. FWS environmental contaminants and law enforcement were unable to identify a source of the toxin.

The Tennessee Wildlife Resources Agency reported the death of over 400 songbirds in Gatlinburg. The birds were found on a foggy morning in lighted parking lots. All birds examined by the Southeastern Cooperative Wildlife Disease Study had evidence of trauma. It is speculated that the fog reduced visibility and caused the birds to fly into objects.

In July, approximately 460 young-of-the-year western grebes died at Swan Lake in Minnesota. Schistosoma related enteritis was seen in some of the birds submitted, however, the diagnosis remains open.

The following information was provided by Dr. B. Panigrahy, National Veterinary Services Laboratory, USDA/APHIS, PO Box 844, Ames, IA 50010.

Neurotropic Velogenic Newcastle Disease in Cormorants and Turkeys

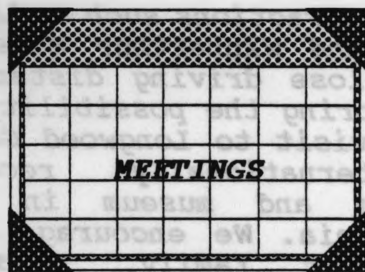
In June, 1992 the US Fish and Wildlife Service's National Wildlife Health Research Center (NWHRC) in Madison, Wisconsin, reported a large die-off of double crested cormorants in west-central Minnesota and northern Michigan. Newcastle disease virus was isolated from tissues submitted to the NWHRC and Michigan State University. The virus was characterized at the National Veterinary Services Laboratory (NVSL), Ames, Iowa as neurotropic velogenic pathotype. The disease was reported to affect primarily young birds less than 6 weeks of age. Clinical signs in affected birds included with and leg paralysis, incoordination, torticollis, and inability to raise the head. It is now estimated that some 3,000 cormorants have died from the disease in 6 states: Michigan, Wisconsin, Minnesota, North Dakota, South Dakota, and Nebraska. In addition, Canadian officials reported on the isolation of a similar pathotype of Newcastle disease virus from cormorants on the north shore of lake Huron in Canada.

In August, 1992 neurotropic velogenic Newcastle disease virus (NVNDV) was isolated from range turkeys near St. Michaels, North Dakota. The flock of 26,000 14-week-old hens were located less than 4 miles from an area where NVNDV was diagnosed in cormorants. The owner had reported seeing cormorants in the field with the turkeys. Approximately 1,000 birds were affected with central nervous system signs and it was estimated that some 500-600 of the affected birds died. This represents the first isolation of velogenic Newcastle disease virus in commercial poultry since

viscerotropic velogenic Newcastle disease virus was isolated from chickens in the Rio Grand Valley in Texas in 1975.

RESEARCH GRANT AVAILABLE

Preproposals for research projects addressing clinical aspects of exotic and wild birds are now being accepted for consideration for funding by the Association of Avian Veterinarians. Grants are limited to \$20,000 for an individual project. Please contact Adina Rae Freedman, AAV Central Office, PO Box 811720, Boca Raton, FL 33481.



THE MID-ATLANTIC STATES ASSOCIATION OF AVIAN VETERINARIANS 14TH ANNUAL CONFERENCE - To be held April 25-27 near Washington, DC. Up to 20 contact hours of continuing education credit will be available for veterinarians and technicians in diverse avian subjects: behavior, nutrition, diseases, critical care, practice management, ophthalmology, raptors, ratites, etc. Wet labs available include basic techniques, orthopedics and radiology. Registration forms will be mailed 2/93. Contact MASAAV, 1672 Mt Tabor Road, Blacksburg, VA 24060 or phone 703-552-5552 for further information.

NORTHEASTERN CONFERENCE ON AVIAN DISEASES - The 65th meeting of the Northeastern Conference on Avian Diseases (NECAD) will be held June 9-11, 1993 at the University of Delaware, Newark, Delaware.

Generous contributions from industry donors and the American

Association of Avian Pathologists will enable us to develop a program that we trust will be especially informative and affordable.

The scientific program will emphasize important emerging diseases, specifically Marek's Disease and Infectious Bronchitis. Prominent invited speakers will discuss their experiences with these important poultry diseases. Solicited scientific papers and case reports dealing with Marek's disease, infectious bronchitis and other avian diseases will be presented by researchers, diagnosticians and veterinary practitioners from the U.S. and Canada.

Many attractions such as Longwood Gardens and Winterthur Museum are within close driving distance. We are exploring the possibility of an evening visit to Longwood Gardens, an internationally recognized arboretum and museum in nearby Pennsylvania. We encourage you to bring your family. Newark is accessible by car (1 mile from Interstate 95) and plane (30 miles from Philadelphia International Airport).

Please contact Dr. Jack Gelb, Jr., Department of Animal Science and Agricultural Biochemistry, University of Delaware, Newark, DE 19717-1303 for additional information. Phone: (302) 831-2524 Fax: (302) 831-8177.

WVPA CONGRESS - To be held August 16-19 in Sydney, Australia. Plan your trip now to embrace this scientific occasion and take advantage of the opportunities for the vacation of a lifetime. For information contact the congress organizer: Margaret Reid Pty, Ltd, PO Box 341, Neutral Bay NSW 2089, Australia. Phone 612-953-7100, Fax 612-908-1070.

WHO'S GOING TO AUSTRALIA? - It would appear that several of our AAAP members are crossing the pond to attend the WVPA meeting. If you want, let me know that you are going

and I will make a list and share it with all of the others making the trip. Maybe have a pint down under.

14TH AAV ANNUAL CONFERENCE - To be held in Nashville, TN, August 31 - September 4, 1993. For further information, contact the AAV Conference Office, 1625 S. Birch St, Ste 106, Denver, CO 80222. Phone 303-756-8380. Fax 303-759-8861.

THE 44th NORTH CENTRAL AVIAN DISEASE CONFERENCE CALL FOR PAPERS - The meeting will be held October 3-5, 1993 in Columbus, Ohio. A special topic symposium and a general session will be held. Those wishing to give a paper for the general session should submit a title and paper description by June 30, 1993. Send to Dr. Eva Wallner-Pendleton, Veterinary Science Department, University of Nebraska, Lincoln, NE 68583-0907. Fax 402-472-3094. The 1993 symposium topic will be on avian therapeutics, with several invited speakers presenting talks on extralabel drug use, economics of therapy, producer accountability, and more. For additional information please call Dr. Wallner-Pendleton at 402-472-1434.

THE AMERICAN ASSOCIATION OF ZOO VETERINARIANS' 1993 ANNUAL CONFERENCE - To be held at the Marriott Hotel in St. Louis, Missouri, on October 10-15. Special sessions will include: government regulations, zoo veterinarian's role in conservation programs, medicine of Austral-Asian species, and group medicine and herd health. Other program sections will include pathology, parasitology, clinical pathology; reproductive technology and contraception; immobilization, anesthesia and monitoring; case reports, exotic pets and practice tips, reptiles and amphibians; primates, carnivores and small mammals; avian species; and aquatic animals. Additionally there will be a veterinary and graduate student manuscript competition, workshops and a poster session. Scheduled

workshops include: Comprehensive pest control programs, occupational health and safety, endoscopy, ophthalmology, and basic zoo animal medicine. Individuals interested in submitting a manuscript should contact Donald Janssen, DVM, San Diego Zoo, PO Box 551, San Diego, CA 92112. Phone number (619) 557-3933; FAX (619) 557-3959. Deadline for selection of speakers and topics is 20 March 1993. After deadline or for other conference information contact Wilbur Amand, VMD, AAZV Executive Director, 3400 Girard Ave, Philadelphia, PA 19104-1196; phone (215) 387-9094; Fax (215) 387-8733.

28TH NATIONAL MEETING ON POULTRY HEALTH AND PROCESSING - To be held in Ocean City, MD on October 21-22. For further information, contact Delmarva Poultry Industry, RD 2, Box 47, Georgetown, DE 19947-9622. Phone 302-856-9037.

97TH ANNUAL MEETING OF THE AAVLD/USAHA - To be held in Las Vegas, NV on October 23-29, 1993.

EDUCATIONAL OPPORTUNITIES



INTERN PROGRAM IN AVIAN MEDICINE - North Carolina State University College of Veterinary Medicine is offering two internships in avian medicine for 1993/94. Production of poultry and eggs is the leading agricultural industry in North Carolina. The avian medicine intern program is designed to provide a broad experience for each intern in all facets of the poultry industry, with primary emphasis on the prevention, diagnosis, and treatment of poultry diseases. In addition, interns will gain experience in the postmortem diagnosis of pet and wild bird diseases. Avian medicine interns will participate in (1) the design, implementation, and reporting of field trials and

research related to avian diseases and their management, (2) the application and interpretation of laboratory diagnostic technology e.g. serology, microbiology, virology and histopathology, and (3) the use of computers for word processing, database management and statistical analysis. The avian medicine intern program makes use of resources at the College of Veterinary Medicine, NCSU Poultry Science Department and Poultry Extension Service, North Carolina Department of Agriculture Animal Disease Diagnostic Laboratories, and local poultry production facilities. Two interns are selected each year in accordance with guidelines of the Veterinary Internship/Residency Matching Program. Applicants must submit, via the Veterinary Internship/Residency Matching Program, a letter of intent, transcript(s) of university performance, curriculum vitae, and 2 letters of recommendation, by 4 January 1993 to be eligible for internships beginning 1 July 1993. For further information on the NCSU avian medicine internship program and application materials write Dr. Richard Ford, Associate Dean for Hospital Services and Director of Internship and Residency Programs, North Carolina State University, College of Veterinary Medicine, 4700 Hillsborough St., Raleigh, NC 27606. North Carolina State University is an affirmative action/equal opportunity employer.

POSTDOCTORAL AND/OR GRADUATE STUDENT POSITION - A postdoctoral position is available to study molecular pathogenesis and molecular diagnosis of double-stranded RNA viruses in chickens and animals. A Ph.D. degree in microbiology, virology, and molecular biology is required. Candidates with Ph.D. training in avian virology are highly desired. Experience in hybridization, PCR, sequencing, cloning, expression, and basic immunologic techniques is essential. Graduate veterinarians or students from allied biomedical

sciences with interest in pursuing graduate studies in this area are also encouraged to apply.

Please send curriculum vitae, academic transcripts, a statement of career goals, and names and addresses of three references to: Dr. C.C. Wu, Associate Professor 1175 ADDL Purdue University West Lafayette, IN 47907-1175 Purdue University is an affirmative action/equal opportunity educator and employer.

GRADUATE TRAINING POSITION IN POULTRY MEDICINE - The Department of Avian and Aquatic Animal Medicine, College of Veterinary Medicine at Cornell University offers a Research Assistantship for graduates of accredited veterinary colleges who wish to pursue research and advanced studies leading to a PhD degree. Opportunities for training are available in avian immunology, virology, and viral pathogenesis at the molecular and animal levels. United States citizenship or permanent residency is a requirement. The award includes an initial salary ranging from \$18,550 to \$23,150/year, depending on years of relevant experience. Tuition (presently \$9,100/year) also is provided. An award is contingent on acceptance of the student by the Cornell Graduate School. Rotation through 2 or more laboratories within the Department before naming their faculty mentor is encouraged. The Department has excellent research facilities available, including breeding flocks of specific-pathogen-free chickens of known major histocompatibility antigens and facilities for molecular biology studies. Departmental faculty (Drs. B.W. Calnek, B. Lucio, S.A. Naqi and K.A. Schat) have research interests related to pathogenesis of, and host response to viral diseases at the animal, cellular, and molecular levels; development of molecular probes and other diagnostic reagents and methods; and identification of immunologically relevant genes, and

development of recombinant vaccines. For additional information, prospective applicants should contact Dr. B.W. Calnek, Dept of avian And Aquatic Animal Medicine, College of Veterinary Medicine, Cornell University, Ithaca, NY 14853-6401; Phone 607-253-3364. Fax 607-253-3369. The deadline for application is March 1, 1993. Cornell University is an affirmative action/equal opportunity educator and employer. Minority students are especially encouraged to apply.

SUMMER INTERNSHIP IN POULTRY MEDICINE FOR VETERINARY STUDENT AVAILABLE - American Cyanamid, a manufacturer and marketer of poultry pharmaceuticals, is seeking a summer intern for 1993. The intern will work primarily with broiler companies assisting the sales and technical staff in monitoring product efficacy in the field and presenting information on our products and on poultry health.

Candidates should have good speaking, writing and people skills, an interest in poultry and be willing to travel throughout the U.S. This position represents an opportunity to gain experience in the poultry industry and exposure to industrial veterinary medicine.

For further information, contact: Fran Prebish, Personnel Supervisor, American Cyanamid Company, One Cyanamid Plaza, Wayne, NJ 07470, Ph 201-831-3378, Fax 201-831-2115.





WANTED

The AAAP Foundation business office is interested in obtaining sets of journals for distribution to underdeveloped countries. Contact Bob Eckroade if you would like to donate your old journals. This is a tax deductible donation.

LOCATIONS FOR PRECEPTORS - The AAAP Foundation is looking for institutions, Diagnostic Labs, Poultry Companies, etc who would be willing to take students who have been awarded the Ken Eskelund Preceptorship Awards.

POULTRY EXPERIENCE OPPORTUNITIES FOR VETERINARY MEDICAL STUDENTS - The University of Wisconsin-Madison, School of Veterinary Medicine wishes to identify individuals, units, companies, or agencies where veterinary medical students may explore career opportunities and gain experience in the poultry industry. Opportunities are needed for summer employment or short term summer visits for first and second year veterinary medical students and for clinical rotations for fourth year veterinary medicine students. Contact DR. B.C. Easterday, School of Veterinary Medicine, 2015 Linden Drive West, Madison, WI 53706. Phone 608-263-6716. Fax 608-263-6573.

POSITIONS AVAILABLE

MOLECULAR/CELLULAR IMMUNOLOGIST - Position immediately available at The Department of Animal Science and Agricultural Biochemistry, College of Agricultural Sciences, University

of Delaware, Newark, DE 19717-1303.

Rank and Salary: Assistant Professor; salary commensurate with training and experience; tenure-track position.

Qualifications: Ph.D. with post-doctoral experience in cellular and molecular immunology. The individual must be able to communicate effectively with academic colleagues, government and industry.

Position Description: Position will be approximately 70% research and 30% undergraduate and graduate student instruction and advisement. The individual selected for the position will be expected to develop an active and contemporary research program in molecular and/or cellular immunology with emphasis on the chicken. Applicants with interests in growth factors, cytokines, and their receptors; development, function, and regulation of immune responses; molecular mechanisms of pathogenesis; and virus/host cell interactions are encouraged to apply. The ability and desire to collaborate with other department faculty and professionals is critical. He/she will also be asked to develop an advanced undergraduate/graduate-level course that is consistent with the individual's background and department's need(s).

Application: Send a letter of application with curriculum vitae and a list of three to five references and a brief description of research interests to: Dr. Robin W. Morgan, Chair, Search Committee Department of Animal Science and Agricultural Biochemistry, 040 Townsend Hall, College of Agricultural Sciences, University of Delaware, Newark, Delaware 19717-1303.

Closing Date: January 15, 1993 or until a suitable candidate is identified.

The University of Delaware is an equal opportunity employer which encourages applications from minority group members and women.

STAFF VETERINARIAN - HYBRID TURKEYS INC, a primary breeding company operating on a world-wide basis invites applications for the position of **STAFF VETERINARIAN.**

Responsibilities will include the therapeutic and disease control program, assistance with the health monitoring program at the diagnostic laboratory level, assistance with in-house quality control and assurance of effective laboratory procedures and techniques.

The successful candidate will be a DVM licensed to practice in Ontario and will also have a post-graduate degree in Poultry Health with emphasis on laboratory diagnostics. In addition, the individual must possess good oral and written skills and have the ability to work as a team player with people on all levels.

The position is located in the Kitchener area with local travel as required.

Please reply to: Hybrid Turkeys Inc, 9 Centennial Drive Kitchener, Ontario N2B 3E9 Attention: Elaine Smith, Manager, Human Resources

POULTRY VIROLOGIST - to work as a Senior Scientist/Project Leader In Poultry Vaccine Research & Development. Position requires PhD in Microbiology or equivalent plus two or more years industry experience working with poultry viruses. Individual will lead a team of 4-6 scientists and technicians researching and developing poultry vaccines. Position offers competitive salary and generous benefits. Interested persons should contact: Jim Fowler, Dunhill Personnel, 2010 Jordan Lane NW, Huntsville, AL 35816. Fax 205-895-9111. Phone 800-468-9214.

TECHNICAL SERVICES VETERINARIAN (POULTRY) - To work as professional services veterinarian for a manufacturer of poultry vaccines. Requires DVM or VMD plus extensive poultry background. M.A.M. or

Poultry Intern Program a plus. Extensive travel required. Must have good communication skills. Position offers competitive salary and generous benefits. Interested persons should contact: Jim Fowler, Dunhill Personnel, 2010 Jordan Lane NW, Huntsville, AL 35816. Fax 205-895-9111. Phone 800-468-9214.

EXTENSION VETERINARIAN (POULTRY) - Cornell University. This is a professional position that will involve development and implementation of a poultry health management and preventive medicine program for the poultry industry of New York State. The incumbent will be expected to: 1) develop and implement comprehensive programs for the surveillance, prevention and control of poultry diseases, 2) integrate the health programs with management programs by direct contact with poultry producers, 3) investigate specific health problems on site, i.e., through farm visits, and coordinate the associated diagnostic activities with the laboratory for poultry disease diagnosis in the Department of Avian and Aquatic Animal Medicine (DAAAM) and with the Diagnostic Laboratory (DL) at the College of Veterinary Medicine at Cornell, 4) serve as the liaison between the DAAAM, the DL poultry industry producers, allied industry representatives, the New York State Department of Agriculture and Markets and Poultry Extension Specialists in the College of Agriculture and Life Sciences, 5) serve as backup for poultry necropsy and related services for the DAAAM, 6) conduct field research, on problems of economic significance, independently and in collaboration with faculty in the DAAAM and DL, 7) produce educational material related to poultry disease control, interact with other extension specialists at Cornell and help organize extension meetings and 8) participate in regional, national and international extension programs as appropriate. Leadership ability and experience, and knowledge appropriate for

national and international interactive representation are expected. Ability to work as a team member is essential. May supervise technical support staff.

Candidates must possess the DVM degree or equivalent, and have experience in poultry disease diagnosis and management. Advanced degrees and/or certification in the American College of Poultry Veterinarians are desirable as is previous experience in veterinary extension and continuing education. Title and salary will be commensurate with ability and experience.

Applicants should send their curriculum vitae, personal bibliography and the names of three persons from whom references may be sought to: Dr. Bruce W. Calnek, Department of Avian and Aquatic Animal Medicine, College of Veterinary Medicine, Cornell University, Ithaca, NY 14853.

Cornell University is an equal opportunity, affirmative action employer/educator.

TENURE-TRACK FACULTY POSITION IN AVIAN MEDICINE - available in the Department of Large Animal Clinical Sciences of the Virginia-Maryland Regional College of Veterinary Medicine, Virginia Tech. Responsibilities: Instructional duties will include leadership and participation in didactic instruction in the professional avian medicine course and the graduate avian medicine program. Service will include participation in the Flock Health Program (investigation, diagnosis, and providing recommendations for solving disease problems) and participation in faculty governance activities research will include both independent and collaborative creative activity in research missions of the College, will be both basic and applied, and will be significantly derived from external grants. Duties will also include leadership in the graduate program. Qualifications include the DVM (or

equivalent degree) and PhD with advanced training and experience in poultry medicine, and expertise and experience in microbiology and immunology. Interpersonal skills in working with colleagues, students and clients will be important. Rank will be at the level of assistant Professor. Salary will be commensurate with qualifications and experience. Starting date is negotiable. Applications should include a letter stating career goals and interests, curriculum vitae, and the names and addresses of 3 references and should be sent to Dr. Craig Thatcher, Dept of Large Animal Clinical Sciences, Virginia-Maryland regional College of Veterinary Medicine, Virginia Tech, Blacksburg, VA 24061-0442. An equal opportunity/affirmative action employer.

POSITIONS WANTED

Position Desired: I have recently graduated from the University of Georgia with a doctorate in Medical Microbiology, and am seeking a research position in the poultry industry. My doctoral research studied methods of immunological intervention to reduce colonization of chickens by Campylobacter jejuni. As a Masters degree candidate at the University of Delaware, I studied differences in clinical manifestations and immunosuppressive abilities between classical and variant infectious bursal disease viruses. Prior to entering graduate school, I was employed as a flock supervisor with a fully integrated poultry company on the Eastern Shore.

I feel my strong background in virology and immunology, coupled with practical poultry industry experience, would be an asset to research programs in the poultry biologicals field. I can be contacted at the following address for a resume or additional information: Michel Y. Carr, #5 Pinecrest Lodge Rd., Athens, GA 30605 Phone: (706) 546-1244.

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Tentative Program for AAAP Symposium, July 18, Minneapolis, MN,

" Newly Emerging and Re-emerging Avian Diseases; Applied Research and Practical Applications for Diagnosis and Control"

Section 1 on Mycoplasma--Dr. David Mitchell

8:30-8:50--"Application of PCR in the Diagnosis of Mycoplasma"
by Dr. Lloyd Lauerman

8:50-9:05--"Mycoplasma Profiling" by Dr Mazhar Khan

9:05-9:25--"An Introduction to Mycoplasma iowae" by Dr. Colin Baxter-Jones

9:25-9:45--"An Overview of the Current Mycoplasma Problem" by Dr. Stan Kleven

9:45-10:00--Panel Discussion

10:00-10:30

BREAK

Section 2 on Factors that Impact Disease Interaction--Dr. Roger Harvey

10:30-10:50--"The Interactive Effects of CAA, REO, and IBD Infections"
by Dr. John Rosenberger

10:50-11:10--"The Impact of Management Practices on Poultry Production"
by Dr. Robert Good

11:10-11:30--"Runting, Stunting, Enteritis, and Failure to Thrive"
by Dr. Mark Goodwin

11:30-11:45--"Physiological Basis for Nutritional Modulation of the Immune Response" by Dr. Kirk Klasing

11:45-12:00--Panel Discussion

12:00-1:30

LUNCH

**Section 3 on Pathogenesis and Diagnosis of Reproductive Failure in Hens--
Dr. David Swayne**

**1:30-1:50--"Endocrine Regulation of Ovarian Follicle Growth: Implications
Towards Understanding Follicle Recruitment and Atresia"**
by Dr. Alan Johnson

1:50-2:10--"A Field Perspective of Reproductive Failure in Chickens"
by Dr. Kenton Kreager

**2:10-2:30--"Reproductive Nonperformance in Turkey Hens An Industry
perspective" by Dr Helen Wojcinski**

2:30-2:45--"Diagnosis of Reproductive Failure" by Dr Thomas Brown

2:45-3:00--Panel Discussion

3:00-3:30

BREAK

Section 4 on Rhinotracheitis--Dr. Colin Baxter-Jones

**3:30-3:50--"Isolation, Characterization, and Serological Relatedness of TRT
Viruses from Domestic Poultry" by Dr. Jane K.A. Cook**

**3:50-4:10--"Pathogenesis and Immunity in Laboratory Challenge Studies with
Turkeys and Chickens" by Dr. R.C. Jones**

**4:10-4:30--"TRT Clinical Disease in Turkeys and Chickens--A Worldwide
Perspective" by Dr. Daniel Gaudry**

**4:30-4:45--"TRT and Swollen Head Syndrome of Chickens: The Current Status of
These Diseases in the United States" by Dr. James E. Pearson**

4:45-5:00--Panel Discussion

**PRELIMINARY PROGRAM
ORAL PRESENTATIONS**

MONDAY	SESSION 1	SESSION 2
9:30 am	Alan L. Johnson Vasoactive Intestinal Peptide (9VIP)-Induced Differentiation of Cultured Hen Granulosa Cells	Kirk Klasing Modulation of the Inflammatory and Antibody Response of Chicks by Dietary R-3 Fatty Acids
9:45 am	Jean-Pierre Vaillancourt, et al Cellulitis in Broiler Chickens	Galestan Ghazikhanian, et al Effect of Low Available Phosphorus on Turkey Poults - A Case Report
10:00 am	Martine Boulianne, et al Investigation of the Dark Coloration of Broiler Chicken Carcasses at the Abattoir	James Guy, et al Decreased Egg Production in Turkey Breeder Hens Experimentally Reproduced by Infection with Alphaviruses
10:15 am	Reynaldo Resurreccion A Rapid Laboratory Diagnosis of Infectious Bronchitis under Conditions of High Volume Submission and Short Turn- Around Time	Thomas Brown, et al Serologic Responses of Turkeys, Chickens, and Rheas to Eastern Equine Encephalomyelitis Vaccination
10:30 am	BREAK	BREAK
11:00 am	Mark A. Goodwin Bacterial Typhlitis in Chickens, Turkeys, Quail, and a Peafowl	H.L. Shivaprasad, et al Epidemiologic Study of Poult Enteritis in California Turkey Flocks
11:15 am	Marshall R. Putnam Response to a Malicious Poisoning of a Market Age Broiler Flock	Chris Hayhow, et al Enterovirus Enteritis in Turkeys
11:30 am	Robert Norton, et al Mortality of Turkeys Associated with the Inadvertent Administration of Broiler Starter Feed Containing Salinomycin	Richard Rimler Partial Purification of Cross- Protection Factor(s) from <u>Pasteurella multocida</u>
11:45 am	Dan Domingo, et al Salt Toxicosis in Broiler Chicks	Martin Sevoian, et al The Use of Slow-Release Biodegradable Polymers for Drug, Vaccine and Hormone Biologic Delivery System
12:00 n	AWARDS LUNCHEON	AWARDS LUNCHEON
2:00 pm	Scott Fitzgerald, et al Two Birds with Ovotestes in a Small Flock of Cochin Bantams	M. Suresh, et al Effect of Hemorrhagic Enteritis Virus on Lymphocyte Subpopulations in Turkeys

MONDAY**SESSION 1****SESSION 2**

2:15 pm Daniel Shaw, et al
Rupture of Yolk Sac Associated
with Early Chick Mortality

Brett Hopkins, et al
Histologic Characterization of
Concurrent Infections of
Hemorrhagic Enteritis Virus and
Eimeria melagrimitis in Turkeys

2:30 pm John Brown, et al
The Incidence of Anemia is Now
Diminishing Among Clinically
Ill Georgia Broilers

Iftikhar Hussain, et al
Detection of Hemorrhagic
Enteritis Virus of Turkeys
Using Nucleic Acid
Hybridization

2:45 pm Stephen Davis, et al
Effect of Sarafloxacin on
Mortality Due to E. coli in
Commercial Broilers

Kirklyn Kerr, et al
Chronic Fulminating
Cholangiohepatitis Associated
with Campylobacter Species in
Mature Laying Chickens

3:00 pm **BREAK**

BREAK

3:30 pm Ronald Lippert, et al
Effect of Sarafloxacin on
Mortality Due to E. coli in
Commercial Broilers

Craig Riddell
Hepatitis-splenomegaly in
Leghorn Hens in Western Canada

3:45 pm Dennis Senne, et al
Characterization of NDV
Isolates from Cormorants

Barry Harmon, et al
Preliminary Characterization of
Avian Heterophil Antimicrobial
Peptides

4:00 pm Daniel King
Newcastle Disease Virus
Isolates from Cormorants and
Turkeys in 1992: Evaluation of
Pathogenicity in Chickens

Teresa Morishita, et al
The Microbial Succession of the
Turkey Poult Jejunum

4:15 pm Max Brugh, Jr
Dose/Response Relationships
Defined for Intravenous
Pathogenicity Tests of Avian
Influenza Virus

Thomas Holder
Cooperative Industry and State
Funding for the Control and
Eradication of Catastrophic
Poultry Disease Outbreaks

4:30 pm Shantha Kodihalli, et al
Effect of Avian Influenza Virus
Infection on the Phagocytic
Function of Systemic and
Pulmonary Macrophages

Jean Sander, et al
Effect of Formaldehyde fogging
on Respiratory Tissue and
Broiler Productivity

4:45 pm Michael Perdue
Consistent Occurrence of
Hemagglutinin Variants Among
Avian Influenza Virus Isolates
of the Hg Subtype Suggests Two
Predominant Structural Forms

Seyed Mirsalimi
An Overview of Poult Industry
in Iran

MONDAY**SESSION 1****SESSION 2**

5:00 pm Richard Slemons, et al
Avian Influenza Viruses
Demonstrate a Predilection for
the Pancreas in Infected
Turkeys but not in Infected
Chickens

5:15 pm Elizabeth Laudert, et al
Effect of Avian Influenza Virus
Infection on Growth and
Reproduction Parameters in
Mallard Ducks

Donna Hill, et al
Hatchery Guidelines: A
Practical Approach

Pedro Villegas, et al
Comparison of the Pathogenicity
of Reovirus Strains and
Correlation with the Effect of
Trypsin

TUESDAY

9:30 am Terence Pertile, et al
Studies on Reovirus-induced
Immunosuppression in Chickens

George Anderson, et al
Efficacy of a Cell Free
Trivalent Marek's HVT,
Infectious Bursal Disease and
Quail Pox Vaccine Given by the
Wing Web Route of
Administration

9:45 am Aly Fadly
Induction of Antibodies to
Avian Leukosis and
Reticuloendotheliosis Virus
Using Defective Retroviral
Vectors

Ahmed Ah Mutalib
Influence of Site of
Inoculation of Inactivated
Vaccines on the Immune Response
in Chickens

10:00 am Ching Ching Wu
Diagnosis of Infectious Bursal
Disease by Slot-Blot
Hybridization, Polymerase Chain
Reaction, and Conventional
Antigen Detection Methods

John Glisson
Immune Response to Pasteurella
multocida Isolates Which
Express Antigens of Multiple
Serotypes

10:15 am Frederic Hoerr, et al
Application of Monoclonal
Antibodies for the
Immunohistochemical Diagnosis
of Infectious Bursal Disease

Jagdev Sharma, et al
Reduced Viral Immunodepression
in Chickens Treated with an
Immunomodulator

10:30 am **BUSINESS MEETING**

BUSINESS MEETING

12:30 pm **LUNCH**

LUNCH

1:30 pm David Snyder, et al
A Recombinant Baculovirus
Expressing Infectious Bursal
Disease Virus Antigens Provides
Active and Passive Cross-
Protection of Chickens

Richard Julian, et al
The Effects of Hypoxia and
Hyperoxia on the Incidence of
Spontaneous Turkey
Cardiomyopathy (Round Heart
Disease)

1:45 pm Jack Gelb, et al
Epidemiology of an Outbreak of
Infectious Bronchitis in
Delmarva Chickens: 1990-1993

Kemal Karaca, et al
The Effect of Acemannan on
Chicken Mononuclear Cells

TUESDAY**SESSION 1****SESSION 2**

2:00 pm Martin Smeltzer, et al
Epidemiology of Infectious
Bronchitis in Georgia

2:15 pm Lance Christensen, et al
Efficacy of a Delaware Variant
Type Bronchitis Vaccine, 072
Strain

2:30 pm Roy Montgomery, et al
Modified-Live Infectious
Bronchitis Vaccines and their
Effects on the Head-Associated
Lymphoid Tissue of the Chicken

2:45 pm Mark Jackwood
Immunogenicity of IBV
Glycoproteins Expressed in
Baculovirus

3:00 pm **BREAK**

3:30 pm Syed Naqi, et al
Significance of Genetic
Recombination in the Emergence
of IBV Variants

3:45 pm Michael Ruff
Need for Sensitivity Testing of
Medication Against Avian
Coccidia

4:00 pm Mac Terzich, et al
The Safety, Immunogenicity and
Efficacy of the Live 6/85
Strain of Mycoplasma
gallisepticum (MG) Vaccine

4:15 pm Stan Kleven, et al
Practical Experiences with
Commercial PCR-Based DNA Probes
for Mycoplasma gallisepticum

4:30 pm Maricarmen Garcia, et al
Study of Mycoplasma
gallisepticum Surface Antigens
Using Monoclonal Antibodies

Robert Droual, et al
Local Reaction and Serological
Response in Commercial Layer
Chickens Injected
Intramuscularly in the Leg with
Oil-Adjuvanted Mycoplasma
gallisepticum Bacterin

Lawrence Arp, et al
Local and Systemic Immune
Response to Ocular Immunization
in Turkeys

Girish Sarma, et al
Comparison of the Safety and
Efficacy of Conventional vs.
In-ovo Administration of HVT +
SB-1 Bivalent Marek's Disease
Vaccine in Chickens

Linnea Newman
Live Cholera Vaccination in
Broiler Breeders: Field
Vaccination Technique and
Troubleshooting

BREAK

Lucy Lee
Studies of A Marek's Disease
Virus Gene Homologous to the
Herpes Simplex Virus Gene
Encoding Ribonucleotide
Reductase

Nikki Kinney, et al
Safety and Efficacy of a True
Rispsens CV1988 Marek's Disease
Vaccine

Y. Saif, et al
A Recombinant HVT Containing
Genes From ILTV Protects
Chickens Against Challenge by
ILTV

Stephanie Cook
A Novel HVT Recombinant
Vaccine: HVT Containing Genes
for NDV and MDV Antigens
Protects Day-Old Birds from
Challenge

Olufemi Fatunmbi, et al
Differentiation of Avian Pox
Viruses by Restriction
Endonuclease Analysis

TUESDAY**SESSION 1**

4:45 pm Henry Fan, et al
Differentiation of Mycoplasma gallisepticum Strains by using Polymerase Chain Reaction

5:00 pm Marcus Head, et al
Serological Response of Mycoplasma iowae in Turkeys

5:15 pm Patricia Wakenell, et al
Pathologic Changes in Chicken Embryos Caused by Mycoplasma iners Strain OZ

WEDNESDAY

9:30 am R.C. Jones
TRT Update

9:45 David Swayne, et al
Comparison of the Ability of Orally Inoculated Avian-, Pig- and Rat-Origin Spirochetes to Produce Enteric Disease in 1-day-old Chickens

10:00 am David Rives, et al
Staphylococcosis in Broiler Breeders Resulting from Contaminated Live Fowl Cholera and Fowl Pox/Avian Encephalomyelitis vaccine

10:15 am Alex Bermudez, et al
Determination of the No Effect Level of Fumonisin B1 Containing Fusarium Moniliforme Culture Material Fed to Chickens and Turkeys

10:30 am **BREAK**

11:00 am Don Reynolds, et al
The Effects of Fumonisin Toxin on Lymphocyte Blastogenesis

SESSION 2

Shigeto Yoshida, et al
Expression of the gBh (gBh-2) of Marek's Disease Virus Serotype-2 in Cells Infected with Recombinant Fowlpox Virus

James Davis, et al
Isolation of a Virus Antigenically Related to Avian Nephritis Virus from Brains of Broiler Chicks Exhibiting a Central Nervous System Disorder

Jane Cook
TRT Update

Jubril Olu Hassan, et al
Effects of S. typhimurium vaccine for protection of chicks against challenge with S. enteritidis

Mazhar Khan, et al
Detection of Salmonella spp. and Salmonella enteritidis by DNA Probe and Polymerase Chain Reaction

Richard Gast, et al
Evaluation of the Efficacy of Oil-Emulsion Bacterins for Reducing Fecal Shedding of Salmonella enteritidis by Laying Hens

Peter Holt
Effect of Induced Molting on the Transmission of Salmonella enteritidis in White Leghorn Hens

BREAK

David Henzler, et al
The Frequency and Characterization of Salmonella enteritidis Positive Eggs from S. enteritidis Contaminated Environments

WEDNESDAY**SESSION 1****SESSION 2**

11:15 am H.L. Shivaprasad, et al
Summary of Diagnostic Findings
in Ostriches, 1990-1992

11:30 am Steve Breeding
Ostrich Production and Medicine

11:45 am Daniel Gaudry
Experiences With Very Virulent
IBDV

12:00 n Daniel Gaudry
Experiences with Very Virulent
IBDV

Linda Keller, et al
Characterization of Salmonella
enteritidis Antigens Reactive
with Specific Monoclonal
Antibodies

Lois Bichler, et al
The Infection of Egg-Laying
Hens with Salmonella
enteritidis by Oral Inoculation

Roberta Morales, et al
Economic Costs of Salmonella
enteritidis Control in Laying
Flocks

Sherrill Davison, et al
Field Trials with S.
enteritidis Bacterins

POSTER PRESENTATIONS

1. Cheong Up Choi, et al
Revival of Viral Infectivity of Type II Avian Adenovirus After Genomic DNA Cloning.
2. Mark A. Dekich, et al
Multisystemic Adenovirus Infection in Broiler Chicks with Hypoglycemia and Spiking Mortality.
3. Valthiananthan Sivanandan, et al
Comparison of DAS-ELISA and Virus Isolation Methods for Rapid Diagnosis of Avian Influenza Virus Infection.
4. Karel A. Schat, et al
Sequence Analysis of the Non Cell Culture-Adapted CIA-1 Strain of Chicken Infectious Anemia Virus.
5. In P. Mo, et al
Occurrence of Infectious Bursal Disease with High Mortality in Korea.
6. Gloria E. Avellaneda, et al
In vivo Evaluation of IBV Strains from the USA.
7. Charles A. Dangler, et al
Degenerate Primer-directed, Reverse Transcription-Polymerase Chain Reactions for the Avian Infectious Bronchitis Virus Spike Protein Gene.
8. Delin Ren, et al
Identification of a Marek's Disease Virus Gene Homologous to ICP27 of Herpes Simplex Virus.
9. J. Lloyd Spencer, et al
Type and Distribution of Lesions Induced by Very Virulent Marek's Disease Viruses.

10. Dexin Sui, et al
Marek's Disease Virus Gene Encoding Glycoprotein gH.
11. Richard L. Witter
Comparison of Serotype 1 Marek's Disease Vaccine Strains R2/23 and CVI988/Rispens.
12. Keyvan Nazerian, et al
Protection of Chickens Against Reticuloendotheliosis Virus with the Use of a Recombinant Vaccine.
13. Mona M. Aly, et al
Diagnosis of Reticuloendotheliosis Virus Infection Using Polymerase Chain Reaction.
14. Betty W. Seawell, et al
Efficacy of an Inactivated Infectious Coryza Bacterin Against Challenge with Recent Field Isolates of *Haemophilus Paragallinarum*.
15. Lisa K. Nolan, et al
Characterization of an Avirulent Mutant of a Virulent Avian Escherichia coli Isolate.
16. Antonio J. Piantino Ferreira, et al
Cytotoxic Effects of Chicken Pathogenic Escherichia coli Strains.
17. Antonio J. Piantino Ferreira, et al
Mannose-Resistant Hemagglutinin (MHRA) Produced by Chicken Pathogenic Escherichia coli Strains.
18. Marion J. Morgan, et al
Fowl Cholera in Arkansas Turkeys: A Three Year Survey.
19. K. Paige Carmichael, et al
The Role of Pasteurella multocida lipopolysaccharide in the Pathogenesis of Acute Avian Pasteurellosis.
20. W.D. Waltman, et al
Fowl Cholera Vaccination Programs and Subsequent Outbreaks.
21. Brett A. Hopkins, et al
Selected Lesions of Experimental Fowl Cholera in Turkeys.
22. H. John Barnes, et al
Green Liver Discoloration and Osteomyelitis in Turkeys at Processing.
23. Geraldine R. Bayyari, et al
An Association Between Turkey Green-liver/Osteomyelitis Complex and Actinomycosis-like Pathology.
24. James R. Andreasen, Jr., et al
Heterophil Chemotactic Function During Acute and Chronic Stages of Staphylococcal Tenosynovitis and Osteomyelitis in Chickens.
25. Kenneth M. Lam
A Cytotoxicity Test for the Detection of Campylobacter jejuni Toxin.
26. Michael F. Slavik, et al
A Rinse Culture-PCR Method for Detection of C. jejuni Attached to Chicken Carcasses.

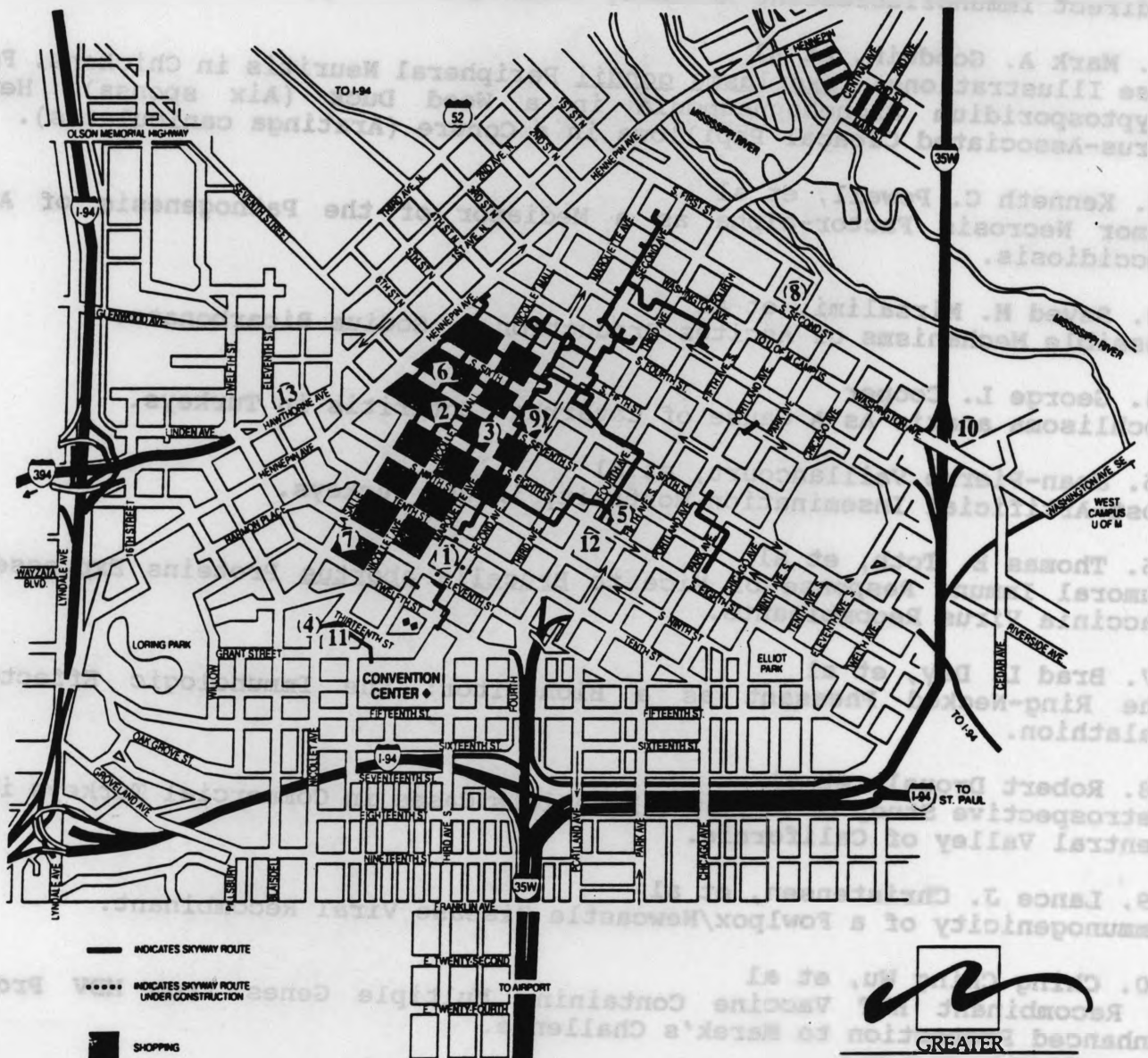
27. Richard J. Meinersmann
Clearance and Antibody Response to Campylobacter jejuni by Chickens.
28. Mark A. Goodwin, et al
Case Illustrations: Intestinal group D Streptococcus Pyogranulomas in a Chicken, and Attaching Enteric Coccoid Bacteria in Turkey Poults with Diarrhea.
29. David J. Caldwell, et al
Scalding Conditions During Processing Alters the Ability of Radiolabeled Salmonellae to Adhere to Broiler Skin Post-Chill.
30. Edward T. Mallinson, et al
Direct Rapid Quantification of Salmonella from Carcasses and Environmental Specimens.
31. W.D. Waltman, et al
Isolation of Salmonella: A Nationwide Survey.
32. Mark A. Wilson, et al
Evaluation of Salmonella pullorum and Salmonella gallinarum Isolates by DNA Fingerprint Profile.
33. Billy Hargis, et al
A Rapid in vitro Radioligand Bioassay for the Evaluation of Compounds Interfering with Salmonella enteritidis Adherence of Processed Broiler Skin.
34. Samuel D. Charles, et al
Identification of Outer Membrane Proteins Specific for Salmonella enteritidis (SE).
35. Michael H. Kogut, et al
Pathogenic Changes in Granulocytopenic Chickens Infected with Salmonella enteritidis.
36. John G. Manning, et al
Antibiotic Abuse Increases the Risk of Resistant Salmonella enteritidis Infection in Poultry.
37. Kakambi V. Nagaraja, et al
Evaluation of Adjuvanted Subunit Protein Vaccines Against Salmonella enteritidis Infection.
38. A. Singh Dhillon, et al
The Use of Non Radioactive Probe to Identify Differences in Salmonella enteritidis Isolates of Poultry and Human Origin.
39. John C. Lawrence, et al
ELISA for the Detection of Antibody to Salmonella enteritidis.
40. Jean G. Petter
In Vitro Growth Characteristics of Salmonella enteritidis.
41. Poosala Suresh, et al
Characterization of Isotype and Source of Antibodies to B. avium Infection in Turkeys.
42. Stephen M. McCarter, et al
A Serological Survey of Antibody Response to Selected Pathogens in Young Turkeys in Georgia.

43. Martin A. Smeltzer, et al
Clinical and Pathological Findings in Young Georgia Chickens with Swollen Heads.
44. Teresa Sperry Tucker, et al
Comparison of Single and Double Immunoenzyme Staining Techniques for use with Computer Assisted Image Analysis.
45. Carlton E. Dean, et al
A Novel Peptide of Humoral Immune System Origin Inhibits Phorbol-Induced DNA Synthesis by Neonatal Chick Bursal Lymphocytes.
46. Daniel Weinstock, et al
Delayed Type Hypersensitivity as a Measure of Cell-Mediated Immunocompetence in Chickens.
47. Lance J. Christensen, et al
Immunogenicity of a Fowlpox/Bursal Disease Viral Recombinant.
48. Pawan K. Agrawal, et al
Cell-Mediated Immune Response of the Gut-Associated Lymphoid Tissue (GALT) in Poultry.
49. Steve W. Breeding, et al
The Effects of Protein Restriction During the Brooding Phase on the Incidence of Spontaneous Turkey Cardiomyopathy.
50. T. Foutz, et al
Evaluation of Angular and Rotation Defects of the Leg in Broilers.
51. Joe N. Beasley, et al
A Histologic Study of Focal Hepatic Lesions in Turkeys.
52. Nikki Kinney, et al
Colonization with a Live Mycoplasma gallisepticum, Strain TS-11.
53. Alan R. Sharpton, et al
The Influence of Antibiotics, Sampling Site, and Time on the Polymerase Chain Reaction for the Diagnosis of Mycoplasma synoviae.
54. Amer N. Silim, et al
Analysis of Conformation-Dependent Mycoplasmal Antigens by a Radioimmunoprecipitation Assay using Monoclonal and Polyclonal Antibodies.
55. Lloyd H. Lauerman, et al
Identification of Avian Mycoplasmas by Restriction Enzyme Analysis of Two-Step Polymerase Chain Reaction Products.
56. Thomas E. Toth, et al
The Effect of LaSota Newcastle Disease Virus on the Cellular Response in the Respiratory System of Chickens to Escherichia coli Aerosol.
57. James F. Davis, et al
Selected Plasma Chemistry Values of Broiler Chickens Experimentally Infected with Three Enteroviruses and a Reovirus.
58. Joan S. Jeffrey, et al
Zygomycotic Ventriculitis Associated With Mortality in Young Ostriches.

59. George N. Rowland, et al
Experimental Rickets in Ratites: Gross, Microscopic and Radiographic Lesions.
60. Lisa A. Newberry, et al
The Titration of Ten Commercial Avian Reovirus Vaccines using a Microtiter Indirect Immunofluorescent Antibody Technique and Egg Embryo Inoculation.
61. Mark A. Goodwin, et al
Case Illustrations: Toxoplasma gondii Peripheral Neuritis in Chickens. Fatal Cryptosporidium Bronchopneumonia in a Wood Duck (Aix sponsa), Herpes Virus-Associated Cloacal Papilloma in a Conure (Aratinga canicularis).
62. Kenneth C. Powell, et al
Tumor Necrosis Factor-alpha as a Mediator of the Pathogenesis of Avian Coccidiosis.
63. Seyed M. Mirsalimi, et al
Possible Mechanisms of Ascites Production by Sodium Bicarbonate.
64. George L. Cooper
Cochlisoma anatis As A Cause of Catarrhal Enteritis in Turkeys.
65. Jean-Pierre Vaillancourt, et al
Post-Artificial Insemination Mortality in Hen Turkeys.
66. Thomas E. Toth, et al
Humoral Immune Response of Mice to Brucella abortus Proteins Expressed by Vaccinia Virus Recombinants.
67. Brad L. Day, et al
The Ring-Necked Pheasant as a Biomonitor: the Immunologic Effects of Malathion.
68. Robert Droual, et al
Retrospective Study of Necrotic Enteritis Cases in Commercial Turkeys in the Central Valley of California.
69. Lance J. Christensen, et al
Immunogenicity of a Fowlpox/Newcastle Disease Viral Recombinant.
70. Ching Ching Wu, et al
A Recombinant HVT Vaccine Containing Multiple Genes from MDV Provides Enhanced Protection to Marek's Challenge.
71. Adrian Mockett
Experiences with the Research and Development of TRT Vaccines.



DOWNTOWN MINNEAPOLIS



— INDICATES SKYWAY ROUTE

..... INDICATES SKYWAY ROUTE UNDER CONSTRUCTION

■ SHOPPING

◆ ENTERTAINMENT/NIGHTLIFE

◆ Minneapolis Convention Center
◆◆ Greater Minneapolis Convention & Visitors Association


GREATER
MINNEAPOLIS
CONVENTION & VISITORS
ASSOCIATION

DOWNTOWN HOTELS

- | | |
|--------------------------------|-------------------------------|
| 1. MINNEAPOLIS HILTON & TOWERS | 8. THE WHITNEY HOTEL |
| 2. RADISSON PLAZA | 9. OMNI NORTHSTAR HOTEL |
| 3. MARQUETTE HOTEL | 10. HOLIDAY INN METRODOME |
| 4. HYATT REGENCY | 11. PARK INN INTERNATIONAL |
| 5. CROWN STERLING SUITES | 12. BEST WESTERN NORMANDY INN |
| 6. MARRIOTT CITY CENTER | 13. REGENCY PLAZA |
| 7. HOTEL LUXEFORD SUITES | |



HOUSING APPLICATION FORM

AMERICAN VETERINARY MEDICAL ASSOCIATION - 130TH ANNUAL MEETING

JULY 17 - 21, 1993 • MINNEAPOLIS, MINNESOTA

HOUSING INSTRUCTIONS:

1. TO ENSURE THAT YOUR REQUEST IS HANDLED QUICKLY AND EFFICIENTLY, PLEASE PRINT OR TYPE ALL INFORMATION REQUESTED.
2. Housing forms must be received at the Housing Bureau by June 18, 1993.
3. NO TELEPHONE RESERVATIONS WILL BE ACCEPTED.
4. Rooms are assigned on a first-come, first-serve available basis.
5. If you are sharing a room send only one form with the names of persons who are sharing, be sure to include all names, include earliest arrival date and latest departure date.
6. If rooms are no longer available in the hotel(s) of your choice, you will be placed in a hotel property based on availability.
7. Allow four weeks for processing. Once your reservation has been processed by the Housing Bureau, you will receive an acknowledgment. NOTE: This is not a confirmation. You will receive confirmation of your reservation directly from the hotel at a later date.
8. Read the acknowledgment form carefully to see if it is correct. If you need to make an immediate change or cancellation, copy the acknowledgment form and mail it back to the Housing Bureau with the change/cancellation indicated, if you need to make changes or cancellation after you have received your hotel confirmation, contact the hotel directly.
9. Room rates quoted are subject to a 12% state and city room tax.
10. Rates for 3 or 4 people in room may be higher than for two people. Contact the hotel for additional information.

HOTEL PREFERENCE

Indicate your choice in preference order.

1st Choice _____

2nd Choice _____

3rd Choice _____

4th Choice _____

TYPE OF ROOM REQUESTED

☐ Single (king bed - 1 person)

☐ Double (king bed - 2 people)

☐ Double/Double
(2 double beds 2 - 4 people)

HOTELS	HOTEL RATES		HEALTH FACILITY	SKYWAY ACCESS	DISTANCE TO CENTER
	Single	Double			
Minneapolis Hilton*.....	\$115.00...	\$140.00.....	Yes.....	Yes.....	2 Blocks
Radisson Plaza.....	\$110.00...	\$120.00.....	Yes.....	Yes.....	6 Blocks
Marquette Hotel.....	\$110.00...	\$118.00.....	No.....	Yes.....	6 Blocks
Hyatt Regency*.....	\$106.00...	\$116.00.....	Yes.....	Yes.....	1 Block
Crown Sterling Suites....	\$106.00...	\$116.00.....	No.....	Yes.....	6 Blocks
Marriott City Center.....	\$104.00...	\$114.00.....	Yes.....	Yes.....	6 Blocks
Hotel Luxeford.....	\$100.00...	\$100.00.....	Yes.....	No.....	8 Blocks
The Whitney Hotel.....	\$ 95.00...	\$ 95.00.....	No.....	No.....	15 Blocks
Omni Northstar Hotel.....	\$ 95.00...	\$ 95.00.....	No.....	Yes.....	5 Blocks
Holiday Inn Metrodome..	\$ 83.50...	\$ 93.50.....	Yes.....	Yes.....	20 Blocks
Park Inn International	\$ 78.00...	\$ 88.00.....	Yes.....	Yes.....	1 Block
Best Western					
Normandy Inn.....	\$ 74.00...	\$ 84.00.....	No.....	No.....	8 Blocks
Regency Plaza.....	\$ 68.00...	\$ 74.00.....	Yes.....	No.....	8 Blocks

*CO-HEADQUARTERS HOTELS

Do you have any physical disabilities the hotel should be made aware of?

Explain: _____

Arrival Date: _____ Time: _____ Departure Date: _____

• FIRST NIGHT'S DEPOSIT REQUIRED! •

A check made payable to "GMCVA" is enclosed. Check #: _____ Amount \$ _____

Please bill my credit card. Check One: ☐ Visa ☐ Mastercard ☐ American Express

Card No.: _____ Exp. Date: _____ Signature: _____

* Your Name: _____

Address: _____ City: _____ State: _____ Zip: _____

Telephone: _____ Affiliation: _____

Sharing room with: _____

* Confirmation will be sent to this person.

RETURN THIS FORM BY JUNE 18, 1993

TO: AVMA HOUSING BUREAU

GREATER MINNEAPOLIS CONVENTION & VISITORS ASSOCIATION

1219 Marquette Avenue • Minneapolis, Minnesota 55403

To: AAAP Members

From: Symposium Subcommittee, Enteric Diseases Committee, AAAP

Greetings from the AAAP Enteric Diseases Committee! The last Enteric Disease Symposium, held at the 1989 AAAP meeting in Orlando, was a great success, and our committee would like to propose to the AAAP Board that we hold the next Enteric Disease Symposium at the 1994 or 1995 meeting. Enclosed is a survey soliciting your views on a number of questions regarding the content of the proposed symposium. We would greatly appreciate receiving your ideas so that we can make this symposium as valuable and successful as the previous one. Please return (mail or fax) the completed survey by May 1, 1993, to:

Dr. T.J. Myers
USDA, APHIS, BBEP
Veterinary Biologics
Room 838
6505 Belcrest Road
Hyattsville, MD 20782
Phone: (301) 436-7760
Fax: (301) 436-5992

Thank you for your input. See you this July in Minneapolis!

AVIAN ENTERIC DISEASE SYMPOSIUM SURVEY

1. Do you feel it would be beneficial to hold an Enteric Disease Symposium at the 1994 or 1995 AAAP meeting? ☐ YES ☐ NO
2. The following outline contains the subjects covered at the 1989 symposium. Which of these topics would you like to hear discussed and updated at the next symposium?
 - A. Mechanisms of Enteric Disease
 - ☐ Digestive physiology ☐ Intestinal immunity
 - ☐ Nutrition ☐ Field perspective
 - B. Protozoal Diseases
 - ☐ Coccidiosis ☐ Cryptosporidiosis
 - C. Viral Diseases
 - ☐ Rotaviruses ☐ Reoviruses ☐ Adenoviruses
 - ☐ Coronaviruses ☐ Small enteric viruses
 - D. Bacterial Diseases
 - ☐ Salmonella ☐ Campylobacter ☐ Listeria
 - ☐ Malabsorption syndrome
3. Our committee has considered focusing most of the proposed symposium on the practical aspects of enteric disease control. Would you find this approach valuable? ☐ YES ☐ NO
4. If the symposium focused on disease control, what specific topics or problems would you like to hear discussed?
5. If you do not feel a discussion of disease control would be beneficial, or that it should only form a part of the symposium, what do you feel should be the focus of the symposium and what specific topics or problems would you like to hear discussed?
6. Please list the names of any individuals you would like to hear as invited speakers and the topics you would like them to address.

February 8, 1993

To: AAAP Members

**From: S. H. Kleven, Corresponding Secretary, U.S. Branch,
World Veterinary Poultry Association**

I am attaching a WVPA membership application form. If you are a member of AAAP and reside in the USA, you will also be eligible for WVPA membership. If you wish to join, please fill out the application form and forward me a check of \$15.00 for 1993 and 1994. Our dues for the parent organization are £3.00 per year, which is now almost \$6 U.S. – this comes to almost \$12 for the two year period. The remainder should cover postage and bank transfer expenses. Current members will be receiving their dues statements soon.

Your membership entitles you to a subscription to Avian Pathology at the WVPA member rate, which is \$56 for next year. The subscription form and check should be sent directly to CARFAX PUBLISHING COMPANY, P.O. Box 2025, Dunnellon, Florida 32630. The non-member subscription rate is \$150. You will also receive periodic newsletters and information.

Please put the dates for the next WVPA Congress on your calendar now. It will be August 16-20, 1993, in Sydney, Australia. You will be receiving further information from me and from the organizing committee as the time draws closer.

**New Membership Application
U. S. Branch
World Veterinary Poultry Association**

Name: _____

Address: _____

Degrees and/or professional qualifications: _____

Date: _____

Return with your check for \$15 for 1993-94 dues to:

**S. H. Kleven
University of Georgia
Department of Avian Medicine
953 College Station Road
Athens, GA 30602-4875**