aaap

AMERICAN ASSOCIATION OF AVIAN PATHOLOGISTS

Robert J. Eckroade, Secretary-Treasurer of A.A.A.P.
University of Pennsylvania, New Bolton Center
Kennett Square, PA 19348-1692
(215) 444-4282

JUNE 1, 1991 NEWSLETTER

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1991 AVMA MEETING INFORMATION

Transportation from the airport to downtown Seattle is $5.50 by bus and $24.00 by taxi.

The average daily high temperature in Seattle in July/August is 75 degrees and the low is 56 degrees.

There will be awards given for the best two posters. The posters will be judged on scientific content and presentation respectively. Posters **must** be up by noon on Sunday, July 28 to be eligible for judging.

Remember to reserve your awards luncheon tickets! The luncheon will be on Monday, July 29 from 12-2. Tickets are $20.00 each.

The updated program and function list for the meeting is attached. Since the AVMA program does not have the Avian Medicine section events listed separately this year, you may find it helpful to take this list with you to the meeting.

All meetings of the AAAP Board of Directors and all AAAP committee meetings are open to all AAAP members. See times and locations in the list at the end of the newsletter.

OBITUARIES

Harry E. Gaskill, of 1400 N. Tully Rd, Turlock, CA died February 20, 1991.

HISTORY OF AVIAN MEDICINE

The business office has available for sale a bound collection of the history articles that have been printed in AVIAN DISEASES. The collection is entitled THE HISTORY OF AVIAN MEDICINE IN THE UNITED STATES and is available from the business office for $10.00 per copy.

"Questions from Across the Pond"

I have been studying infectious stunting syndrome (runting and stunting, infectious runting, malabsorption syndrome, pale bird syndrome, helicopter disease) of broiler chickens for a number of years.

I would appreciate help in the following matter:

Have you seen this or a similar disease in layer strains of chickens, turkeys, guinea fowl or other species (pheasant, duck, quail, squab pigeon)? If so, can you provide details, copies of reports etc., which would be suitable for references and indicate the usual prevalence in affected flocks, clinical findings, pathology, studies into the etiology etc?

Have you ever seen pancreatic degeneration in these? If so, could you please supply some HE slides so I can compare it to cases I have seen in chickens in Australia and UK. Also, have you seen intestinal crypt lesions in young affected birds? Would it be possible to obtain HE slides of these lesions so I could compare them to cases I have seen.

Thanking you for your assistance.

Rod Reece, BVsC, MSc FACVSc MRCVS
Houghton Laboratory
Houghton, Huntingdon, PE17 2DA
GREAT BRITAIN

American College of Poultry Veterinarians

The Origin of the American College of Poultry Veterinarians

Discussions concerning the establishment of a specialty college for poultry veterinarians have continued informally within the American Association of Avian Pathologists (AAAP) for the last decade. A proposal was made to the Board of the AAAP and to the Annual AAAP Business Meeting and distributed in the newsletter in 1988. In 1989 after approval by the AAAP Board and presentation at the Annual AAAP Business Meeting, The President of AAAP, Dr. Louis van der Heide appointed Dr. Simon M. Shane as chairman of an ad hoc committee to evaluate "establishing a specialty group to offer diplomate status with a species orientation". Drs. Charles Beard, Frank Craig, Ken Eskelund, Craigmyle Riddell and Graham Purchase were requested to serve on the committee. A letter of intent to form a college was filed with the American Veterinary Medical Association (AVMA) Advisory Board on Veterinary Specialties (ABVS) in December, 1989. The ABVS oversees the formation of new specialty boards on behalf of the AVMA. The actions of the ABVS are subject to ratification by the Council on Education and the House of Delegates of the AVMA. In May, 1990 a questionnaire was sent to all members of AAAP. There was overwhelming support for development of a college. At the 1990 AAAP Board meeting the steering committee was enlarged to include Drs. Donald W. Waldrip, Robert J. Eckroade, G. Ghazikhanian, Gary L. Waters and Birch L. McMurray.

In January, 1991 the AAAP steering committee prepared a petition to form the American College of Poultry Veterinarians (ACPV) and submitted it to the ABVS. The ACPV received provisional approval from the ABVS on March 4, 1991 and the Council on Education of the AVMA subsequently. In the petition Drs. David P. Anderson, Arthur A. Bickford, Oscar J. Fletcher, and H. Graham Purchase were identified as Founder Diplomates of the ACPV. All were already Board Certified in an existing college. Fifteen Charter Diplomates will be selected by the Founder Diplomates to fill positions on the Governing Board of the College and the Examination, Credentials Review and Residency Review Committees.

Objectives of the ACPV

The objectives are to further educational and scientific progress, strengthen and improve instruction at both the professional and post-graduate level, and to establish standards of post-professional training and experience for qualification of specialists in poultry veterinary medicine. Also, they are to promote the professional standing of poultry veterinarians and to certify qualified and competent poultry veterinarians in aspects of veterinary medicine appropriate to breeders, broilers, commercial egg, and turkey production and their ancillary disciplines.

These objectives are part of the proposed Constitution and Bylaws which are subject to ratification by the Charter Diplomates at their first meeting.

Constitution and Bylaws

The proposed Constitution and Bylaws provide for Founder Diplomates, Charter Diplomates, Diplomates and Emeritus Diplomates. Concerning Charter Diplomates the Constitution follows the policies and procedures of the ABVS and indicates the status of "Charter Diplomate may be granted to a small number of individuals at the time a specialty college or board is established. This distinction should be reserved for only the most distinguished and experienced members of the field".

Diplomates are veterinarians who satisfactorily meet the training and experience requirements outlined in the Constitution and who successfully complete the board examination. The major provisions for eligibility include having earned a DVM degree or equivalent and one of the following: (a) have earned the MS, MAM or an equivalent or higher post-graduate degree with major emphasis in poultry veterinary medicine, or (b) have successfully completed at least 2 years in a recognized or approved residency program in poultry veterinary medicine, or (c) have at least 7 years professional experience relevant to poultry veterinary medicine in one or more activities including but not limited to teaching, independent research, service or diagnostics with increasing responsibilities over this period of time. The applicant shall have published in refereed journals at least 2 scientific articles or case reports or must submit 3 case reports of a standard suitable for publication.

It is envisaged that the examination will consist of 2 parts namely the Part 1, qualifying examination will be a written examination and the Part 2, certifying examination will be a practical examination involving specimens, slides, production data, instruments and other materials. The Constitution indicates that candidates must be well informed in relevant aspects of microbiology, immunology, pathology, parasitology, physiology, management, toxicology, epidemiology and preventive medicine. The candidate shall also have an applied knowledge of nutrition, biochemistry, environmental management, poultry housing, processing, food safety and quality, economics and breeding. The candidate must have a comprehensive knowledge of poultry veterinary medicine as applied to at least one sector of the commercial poultry industry which comprises breeders, broilers, commercial eggs and turkeys.

The Constitution also provides for a board member who shall be nominated from among the eligible Diplomates in good standing by the Executive Board of the AAAP.

Procedures for Establishing the ACPV

After advertisements in the Journal of the American Veterinary Medical Association and the quarterly newsletter of the American Association of Avian Pathologists an information packet was distributed widely to all expressing an interest. Applications had to be submitted by May 31, 1991. The Founder Diplomates selected the 15 most qualified applicants and submitted the applications for ABVS for approval. The Founder Diplomates and Charter Diplomates form the organizing committee that will meet at the AVMA Meeting in July, 1991 to establish the organization. It is anticipated the first examinations will be given at the AVMA Meeting in July, 1992.

Difficulties in Selecting Charter Diplomates

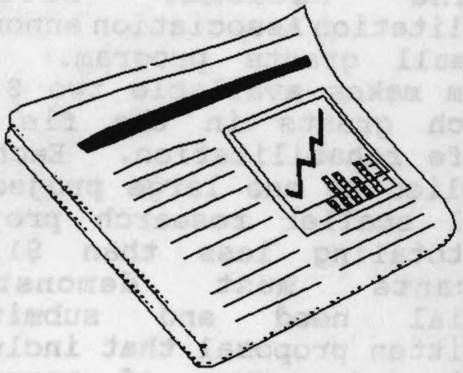
Charter Diplomates that complied with the minimum requirements were selected from among the applicants based primarily on their past contribution to poultry veterinary medicine and their expressed intent to contribute to the ACPV. The following were also considered (a) species namely egg, broiler or breeder chickens or turkeys; (b) discipline namely microbiology, parasitology, toxicology, epidemiology, preventive medicine, nutrition, biochemistry, environmental management, etc.; (c) activity namely research, extension, teaching, service, diagnostics, etc; (d) employer namely federal, state, industry or private practice; (e) geographic distribution namely west, south, east, north, Canada and Mexico; and (f) gender. With all these considerations it was an impossible task to represent all of them among Charter Diplomates and still take the most qualified. However, it was the full intent of the Founder Diplomates to have a balance of these represented. If there were qualified applicants available there was representation from those who work in the chicken house and the elite molecular biologists, those who work in the field with poultry and researchers; those employed by industry and public employees. The Founder Diplomates encouraged everyone who felt they had the necessary qualifications to apply for charter membership. "If you didn't apply, you certainly couldn't be selected".

Concerns Regarding Future Diplomates

There is obviously a great variety of specialization as outlined above. The examination must be written so that there are sufficient questions on the examination so that a person who specialized in one particular area can score above the pass mark. The examination will be intended to allow those who have a real indepth knowledge of poultry veterinary medicine to pass, regardless of which area they specialize in.

Relationship Between AAAP and ACPV

There are many examples of colleges or boards which certify specialists having a very close liaison with academies or societies of members with a common interest. Many people who are well qualified choose not to sit the examination because it will not further their careers. Others do not take the examination because of lack of interest or lack of time. Both those with board or college certification and those without contribute greatly to the academy or association. However, the board or college provides recognition to those who are qualified and wish to sit the examination and these people should benefit from it. Many members of the AAAP are already certified by the American College of Veterinary Microbiologists, the American College of Veterinary Pathologists or the American College of Veterinary Preventive Medicine. The ACPV will provide an opportunity for additional members of AAAP to become board certified based primarily on their knowledge of poultry medicine.



FOR YOUR INFORMATION

Help put veterinary medicine in the Smithsonian

The Smithsonian's museums have paid little attention to the history of veterinary medicine in the past, but that may be about to change. An exhibition, now in its planning stage, called "Health in America" will include the contributions veterinary medicine has made to human health. Curators expect this show will open in 1996 and continue as a permanent gallery. At the moment, they are trying to build their collections and gather research and illustrative material. I am helping that effort and hope you can participate too.

The collecting criteria are these. For "Health in America," the curator of agriculture is searching for items where veterinary medicine contributed to human health. He holds open a broad interest, though, in collecting veterinariana for other exhibition opportunities. Objects do not necessarily have to be of U.S. origin, but all exhibitions are in the context of American history. Photographs, diaries, instruments, letters, advertisements, equipment, models, etc. need identification by date, place and people involved. Museum researchers can often find these details, but they appreciate all the help they can get from professionals in our field. The Smithsonian always prefers donations for its permanent galleries, but will accept loan terms in some cases. From talks with the curator, I expect the following list of subjects and objects is typical of what he would like to find:

-- items related to the research of Dr. Daniel E. Salmon, CA. 1884-1900's

-- transmission studies of cattle tick fever by Frederick Kilbourne and Cooper Curtice showing first vector-borne disease.

-- meat inspection history: pictures, artifacts, etc.

-- early efforts to control bovine tuberculosis from milk to meat: development of tuberculin tests, milk pasteurization, development of PPD, BCG and isoniazid.

-- origin of U.S. military veterinary services in 1916 and contributions.

-- veterinary medicine in NASA (Charles Barnes, Norman Heidelbaugh, etc.).

-- quarantine signs and warnings (dated).

-- milk ordinance and code origin in 1920's.

-- origin of mass testing of animals.

-- origin of mass vaccinations of animals.

-- work on botulism, etc. by K.F. Meyer.

-- discovery of the viral cause (K.F. Meyer), the transmission by mosquitos (Raymond Kelser), birds as reservoir and vaccine (M.S. Shahan and B. Giltner) for equine encephalomyelitis.

-- Reserpine research (H.E. Earl).

-- Dicumarol research (F.W. Schofield).

-- cancer and cancer producing DNA and RNA viruses (Harry Rubin).
-- human rabies diploid vaccine (T.J. Wiktor).
-- dangers of smoking (Howard Hayes, et al).
-- AIDS research (Myron Essex).
-- bone pinning (Otto Stader).
-- Erythroblastosis, antiglobulin test (R.R.A. Coombs).
-- Prosthetic hip (Harry Gorman).
-- artificial heart transplant (Don B. Olsen).
-- repairing and replacing menisci (Steven Arnoczky).
-- human-animal bond (Leo Bustad, et al).
-- biotechnology, gene splicing, etc.

The above are but a few examples of the great contributions made by veterinarians for human health promotion. Other examples you may have are wanted.

Should you have knowledge of specific items that could be used by the Smithsonian please contact:

G. Terry Sharrer, PhD
Curator, Division of Agriculture and Natural Resources
National Museum of American History
Smithsonian Institution
Washington DC 20560
202-357-2813

Name Change for Laboratory

The USDA, Agricultural Research Service, Regional Poultry Research Laboratory located in East Lansing, MI, USA will, henceforth, be known as the AVIAN DISEASE AND ONCOLOGY LABORATORY.

Research Grants Available

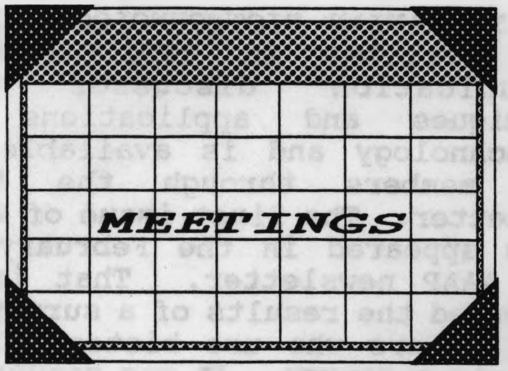
The National Wildlife Rehabilitation Association announces its small grants program. This program makes available two $1,000 research grants in the field of wildlife rehabilitation. Each may be applied to one large project or several smaller research projects each totaling less than $1,000. Applicants must demonstrate financial need and submit a typewritten proposal that includes: name(s) and resume of personnel involved, objectives of the project, a brief description of how the project will be carried out, a brief literature review and an itemized budget.

An annual report on progress is required. It is expected that those receiving NWRA support will present the results of their projects at an NWRA national meeting within 2 years of receipt of the grant.

The deadline for submitting proposals for research grants is December 15 of each year. Recipients will be announced at the NWRA annual meeting in February and in writing.

Proposals should be submitted to:
Mark Pikras, DVM
Tufts University School of Veterinary Medicine
Wildlife Clinic
200 Westboro Road
North Grafton, MA 01536

Canadian Members wishing to renew or obtain membership in the World Veterinary Poultry Association for the years 1991 and 1992 should send $15.00 (Canadian) to: Dr. Lloyd Spencer, Animal Diseases Research Institute, 3851 Fallowfield Rd. PO Box 11300 Station H, Nepean, Ontario K2H 8P9 CANADA.



Perspectives on Food Safety Symposium - To be held on September 5-6, 1991 at the Holiday Inn Crowne Plaza, Arlington, VA. For additional information please contact Dr. Richard Reynnells at 202-447-4087 or Mr. Gary Stefan at 301-443-0830.

The 42nd North Central Avian Disease Conference Call for Papers - Meeting to be held September 14-16, 1991 in Des Moines, IA. Title and Paper description must be received by June 19, 1991. Send to: Dr. Don Reynolds 1802 Elwood Drive, VMRI/College of Vet Med, Iowa State University, Ames, IA 50011. Fax 515-294-1401.

23rd Poultry Science Symposium - Bone Biology and Skeletal Disorders in Poultry - To be held September 18-20, 1991 at Cramond Campus, Moray House College, Edinburgh Scotland. Contact Dr. C.C. Whitehead at 031-440-2726 for more information.

American Association of Zoo Veterinarians 1991 Annual Conference To be held September 28 to October 3, 1991 at the Palliser Hotel in Calgary, Alberta, Canada. For more information, please contact Dr. Wilbur Amand, 215-387-9094.

Symposium on Salmonella - USAHA and AAVLD are sponsors of a Symposium on Salmonella at the time of their annual meetings, October 26 - November 1, 1991. AAAP is also a co-sponsor along with USDA and other organizations. The Symposium will be held on Tuesday, October 29, at the Town and Country Hotel, San Diego, CA. International speakers from WHO, United Kingdom, Germany and Sweden have accepted invitations to be on the program. The purpose of the Symposium is to promote exchange of new information on control programs and new diagnostic methods. There will be no registration fee for the Symposium for registrants attending USAHA/AAVLD programs. There will be a registration fee for those people attending only the Symposium. Program suggestions may be sent to Program Chairman Dr. Bradford Smith, Department of Medicine, School of Veterinary Medicine, University of California - Davis, Davis, CA 95616, Phone 916-752-1363.

Transgenic Animal Models in Biomedical Research Symposium - To be held November 4-5, 1991, at the National Institutes of Health, Bethesda, MD. Program is divided into 6 major sections: 1) production of transgenic animals, 2) neoplasia, 3) diabetes mellitus, 4) atherosclerosis and therapy. Contact Dr. George Migaki, Registry of Comparative Pathology, Armed Forces Institute of Pathology, Washington, DC 20306. Phone 202-576-2452. Fax 202-576-2164. Attendance limited to 100. Reservation deadline October 11, 1991.

XIX World's Poultry Congress - To be held September 20-24, **1992** in Amsterdam, The Netherlands. For more information, Please contact Congress Secretary at 31-020-549-1212 ext 1767.

REPORT OF THE EDITOR

AVIAN DISEASES, Report of the Editor
David P. Anderson

Volume 34 (1990) of AVIAN DISEASES was 1050 pages that included 123 articles, 11 case reports, 13 research notes and 10 pet bird articles. The total pages published were 24% greater than either of the past two years. During the past year we received 192 new manuscripts which is essentially the same as last year. I would predict that Volume 35 will be slightly smaller than last year. Of the manuscripts received approximately 10% are rejected outright and another 37% returned to the authors for revisions. We ended the year publishing approximately 74% of the manuscripts received.

The editorial board continues to do an outstanding job of manuscript review and deserves the appreciation of the association.

1990 - 1991 COMMITTEE REPORTS

Biotechnology Committee
Daral Jackwood, Chair

The 1989-1990 Biotechnology Committee met on July 22, 1990 at our annual meeting which was held in San Antonio, TX. Dr. Dick Witter chaired that meeting in which several new initiatives were discussed. The mission of the committee surfaced; 1. To foster biotechnology among Scientists which use these techniques in their research; 2. To inform and educate members of the AAAP in the methods and potential applications of biotechnology; and 3. To advise government agencies on policy and regulatory issues and thus represent AAAP interests. Approximately 14 poster and oral presentations involving some form of biotechnology were given at the 1990 meeting in San Antonio, TX.

The AVIAN BIOTECHNOLOGY FORUM was initiated in 1991. This communication discusses new techniques and applications of biotechnology and is available to AAAP members through the AAAP newsletter. The first issue of this forum appeared in the February 1, 1991 AAAP newsletter. That issue presented the results of a survey of AAAP members who use biotechnology in their research. It was conducted by members of this committee in 1990. A directory of investigators using biotechnology in avian disease research was also printed in that issue. The Biotechnology Committee thanks M. Purdue, M. Jackwood and S. Palmieri for their efforts in preparing these forums.

The Biotechnology Committee along with other interested AAAP members, organized a symposium on Improved Diagnosis of Avian Diseases Using Molecular Techniques. This topic will be presented to the AAAP Board of Directors in Seattle and if considered appropriate could be given at our 1992 meeting.

Board Specialty Organizing Committee
Simon Shane, Chair

During the past year, members of the Organizing committee communicated frequently on development of a formal petition in accordance with the procedures and policies of the AVMA Advisory Board on Veterinary Specialties (ABVS).

A document was prepared and presented for review during January 1991. The petition included a constitution, justification for establishing the proposed American College of Poultry Veterinarians (ACPV), and defined the criteria for appointment of four Founder Members to initiate the College.

A supplement to the petition was prepared during February 1991 following requests for additional information to support the January 1991 petition.

On March 4, 1991, the ABVS gave provisional approval to the establishment of the American College of Poultry Veterinarians, subject to ratification by the AVMA House of Delegates.

Further development of the College is vested in the four Founder Diplomates, Drs. David P. Anderson, Arthur A. Bickford, Oscar J. Fletcher and H. Graham Purchase. The four Founder Members will select fourteen Charter Members, in accordance with the appropriate policies and restraints imposed by the AVMA Advisory Board on Veterinary Specialties. A notice soliciting application for Charter status was circulated in March 1991 to members of the AAAP and appeared in the April 15th edition of the Journal of the American Veterinary Medical Association. Since the American College of Poultry Veterinarians is now a reality, the Specialty Organizing Committee, appointed in 1989, will relinquish responsibility for further development of the ACPV.

Diseases of Wild Birds Committee
David Ley, Chair

Quarterly Wildlife Mortality Report. The following highlights wildlife mortality reported to the National Wildlife Health Research Center (NWHRC) for October to December 1990. NWHRC received 49 reports this quarter; the main mortality factors were botulism (31%) and avian cholera (24%).

Botulism continued into October with several epizootics. Butte Sink NWR in the Sacramento Valley of California lost an estimated 1,600 birds. An epizootic was reported at Cheyenne Bottoms, Kansas where botulism had not been reported since the late 1960's. Despite the cold temperatures in December, botulism killed 110 mallards along a small creek south of St. Paul, MN. Dredging may have released pre-formed botulism toxin in the soils. Fish were found dead in the same area, however, all were too decomposed for evaluation.

Avian cholera was reported in California at both Sacramento NWR and Lower Klamath NWR. Large losses were incurred at each refuge. Avian cholera was confirmed for the first time at Bitter Lake NWR in New Mexico. Avian cholera began early in the season in the Rainwater Basin of Nebraska; the disease was confirmed in Clay County and later in submissions from mortality occurring in York County. In the Mississippi Flyway, avian cholera caused the loss of 709 snow geese on the Riverton WMA in Freemont County, Iowa, and 26 birds on the Grand Pass Wildlife Area in north central Missouri. This was the first year that this new refuge was available for waterfowl use. Squaw Creek NWR, Missouri lost 500 geese; while avian cholera is suspected, none of the carcasses submitted to NWHRC were diagnosed as having the disease.

The Texas Rice Belt reported mortality in several different areas. Diagnoses of aflatoxicosis and avian cholera have been the most consistent findings. Many sites of a six county area were involved including goose roosting sites. In the Texas panhandle, mortality has been reported from a number of counties with avian cholera confirmed in three major outbreaks.

Relatively warm weather conditions persisting into December triggered outbreaks of acute aspergillosis in mallards in the

Pacific Flyway. Mortality occurred at three different locations in western Montana as well as along the Kootenai River in British Columbia.

California Fish and Game reported a die-off of various species of gulls along the central coast of California. The California Wildlife Investigations Laboratory in Sacramento and NWHRC have been unsuccessful in implicating any single etiological agent.

An estimated 200 tree swallows were found dead in Montrose, Missouri. Necropsy examination showed multiple fractures and bruises. It is suspected that the birds flew into power lines.

A die-off of approximately 200 snow geese and swans near Yakutat, Alaska may have been caused by a storm; however, no definite signs of trauma were seen in the necropsied birds. The case is still undergoing investigation.

Necrotic enteritis was seen in four separate areas this year, the most reported in a single season. North Dakota reported mortality on three areas this fall: Tewaukon and Des Lacs NWRs and near Tuttle. South Dakota reported only one outbreak of the disease at Long Lake near Waubay NWR. Mortality on all of the areas was low in proportion to the population at risk.

Drugs and Biologics Committee
Greg Stewart, Chair

The committee met via correspondence and by responsive survey. The following items are of interest/concern.

Loss of Therapeutic Antimicrobials for Poultry - The loss of ipronidazole and dimetridazole have left the industry with no effective treatment agents. Dimetridazole is still available in Canada. Currently, one legal source of penicillin is left at an escalating price. The availability of same is "spotty" and in a dosage form that is cumbersome. There is no chicken claim for penicillin. The number of sulfaquinoxilone license holders has dwindled to a few with a resultant increase in price. Triple sulfas are not available at present. There are still noises as to the ensuing loss of the nitrofurans family of antimicrobial.

The choices of therapeutic for air sacculitis/E coli septicerina/ CRD are limited to; nitrofurazone, furazolidone, tetracycline(s), sulfaquinoxilone, erythromycin (gram +, coryza and mycoplasma), and tylosin (mycoplasma). Manufacturers are being asked to justify their existing claims on other products or submit a NADA.

Lack of Clearances for Combinations - Two way and three way clearances for coccidiastats in poultry are not being granted in a timely fashion. No growth promotant or therapeutic joint clearances have been approved for two such coccidiastats in turkeys (monensin, halofuginone).

Generic Drug Applications and Regulatory Approvals for Drugs and Biologics - Research and development of new agents or drugs outstrips the FDA and USDA's ability to adequately evaluate and license products. Federal cutbacks are the excuses given for the drawn out procedures. FDA is considering 15-20 generic drugs. None have been approved. The policies and requirements for licensure remain unclear. The animal industries await an end to the regulatory and political "black hole".

There is no clear road map for

licensure of products that are of recombinant bacterial or viral origin used as vectors to express "foreign" proteins. Products will be readied for field testing prior to this being resolved. Special concerns exist over the vectors that may immunize against multiple diseases. The question remains as to which regulatory agency will be responsible for licensing.

Drug Compounding - FDA (CVM) has intent to publish a Compliance Policy Guide on Compounding of Drugs for Veterinary Use. Their policy would not allow veterinarians to compound approved drugs in the course of a veterinarian-client-patient relationship. The AVMA's Drug Advisory Committee (DAC) and the AVMA's Council on Biological and Therapeutic Agents (COBTA) feel that existing regulations and AVMA guidelines are adequate and that only those who manufacture and distribute compounded products should be subject to regulatory action. A definitive answer from the FDA (CVM) is sought.

Extra-Label Drug Use - The rules of the road for extra-label use are not clear. No regulatory action on extra-label use in some species does not mean the same treatment will be granted to other species. The FDA (CVM) needs to define the rules more clearly.

Additional Topics - EPA is considering eliminating the exemption from registration/ licensing for veterinarians who use restricted pesticides. Some states are granting private applicator licenses to veterinarians for this end. Some states now require private applicator licenses for poultry house disinfection product use. Poultry veterinarians are advised to check with their state department of agriculture or state veterinarian.

New movements are afoot in California (proposition 65) to restrict or eliminate the use of common poultry antibiotics. This bears study and observation.

The committee feels that, as a final long term goal, the eradication of LT may have merit. The USAHA plans for eradication have as a foundation the basic tenet that prior to any attempt at eradication, effective surveillance/serology/ diagnostic tools must be in use.

The committee feels that an information exchange (liaison) between the AAAP and key FDA personnel should occur toward the end of clarifying for the practitioner some of the above items. The Livestock Conservation Institute (LCI) is assembling a cross section committee of the animal industries toward two objectives:

1. "To develop a new framework for public policy regulating animal health products. The committee will concentrate on those issues regulated under the Food, Drug and Cosmetic Act."

2. "To communicate this "framework" or "vision" to all segments of the livestock industry for review, further development, consensus, and action."

The effort will address most of the aforementioned topics including also minor species approvals.

Economics and Quantitative Epidemiology Committee
Michael Morris, Chair

Results of last year's survey on poult enteritis were submitted by Dr. David Frame to Turkey World for publication. A survey of the economic impact and epidemiology of Inflammatory Process in broilers was

conducted and the results submitted to Broiler Industry for publication. This information will also be available at the annual committee meeting at the AAAP-AVMA meeting in Seattle. Anyone interested in this committee or these specific conditions is encouraged to attend.

Enteric Diseases Committee
Donald Reynolds, Chair

The following report on the current situation of Salmonella enteritidis was prepared by Drs. Wayne Frerichs and Lee Ann Thomas of the National Veterinary Service Laboratory by the request of the Avian Enteric Disease Committee. We extend our thanks to both Drs. Frerichs and Thomas for preparing this report and making this information available to the AAAP membership.

Salmonella enteritidis - Salmonella enteritidis serotype enteritidis (SE) remains an important cause of foodborne illness in the United States. In fact, foodborne illness due to SE-contaminated eggs has been increasing according to the Centers for Disease Control reports. From 1985 through 1990, 284 SE outbreaks in the United States caused 9,155 illnesses and 47 deaths. More than 70% of these outbreaks have occurred in New England, Mid-Atlantic, and South Atlantic States. In completed outbreak investigations where a food source was identified, contaminated eggs were implicated in 62% of the tracebacks.

The United States Department of Agriculture (USDA) has established a program to reduce SE in poultry. This program has two aims: testing and certification of the primary and multiplier breeding flocks that produce the table-egg layers, and tracebacks and testing of commercial table-egg flocks that are implicated in human outbreaks. Testing and certification is to be done under the National Poultry Improvement Plan or an equivalent State plan. Testing of environmental swabs and tissue samples from flocks linked to human outbreaks is the responsibility of the National Veterinary Services Laboratories. From April 1990 through March 1991, a total of 2,293 environmental swabs and 6,681 composite tissue samples were received. Salmonella enteritidis was isolated from 469 (20%) of the environmental swabs and 154 (2%) of the composite tissue samples. The phage types that have been identified from these isolates are 2, 3, 8 (most common), 13, 13A, 23 and 28.

The USDA has 3 surveillance programs for gathering information on SE. Data from the spent hen survey and the liquid egg survey will be used to determine prevalence of SE in commercial egg layer houses in the U.S. A survey to determine the incidence of SE in commercial birds in private and USDA quarantine stations was instituted after SE phage type 4 was isolated from parrots in Kansas and Tennessee. This is the first time a survey of this nature has been undertaken. Since August 1990, one SE phage type 8 has been isolated. Twenty-six other serotypes have been identified. The most common isolate to date has been Salmonella typhimurium. Four isolates had previously been encountered in reptiles: S. kokolemle, S. mikawasima, S. oslo and S. weltevreden.

Preceptorship Committee
Michael Rosenstein, Chair

In its second year of operation the Preceptorship committee functioned very smoothly. As in the first year six preceptorships were awarded. These awards help defray

students' expenses when they visit approved preceptorship sites. This year's awards went to students from Florida, Kansas, Washington, Indiana, Mississippi and Louisiana. Since the committee had only eight applications this year, the selection process was a little bit easier. It is discouraging to the committee that we only had eight applications this year. We are counting on the general membership of the AAAP to identify and encourage potential candidates to apply. The program announcements sent to the veterinary colleges may have difficulty filtering down to those interested in avian medicine. All AAAP members can participate in this program by identifying interested students, volunteering to be a preceptorship site, or contributing to the AAAP Foundation to fund additional students. If additional information on the program is needed do not hesitate contacting the chair, Michael Rosenstein.

Reference Antisera Committee
Sharon Hietala, Chair

The members of the AAAP reference antisera committee have not met as a group since the 1990 AAAP meeting. Committee members have provided a list of priorities to be addressed at the next committee meeting scheduled for Seattle.

1) Sources of reference antisera, list of reference antisera suppliers. Several commercial companies as well as USDA Biologics have been contacted concerning commercial production of reference antisera for diagnostic and research use. Their responses and concerns will be provided to the committee for discussion.

2) Standardization of reference reagents and assays between laboratories. This issue is linked to item #1.

3) Mycoplasma agglutination and hemagglutination antigens-reports of lack of assay sensitivity in field use.

4) Evaluation of the two commercial poultry ELISA systems. The two commercial companies have been contacted and have agreed to supply relevant information concerning their products and test interpretation for committee discussion.

As committee chair, I apologize that the committee has not made progress to date, but expect that we will be able to generate useful information in the near future.

Toxic and Miscellaneous Infectious Diseases Committee
David Swayne, Chair

The following topics will be presented and discussed by invited speakers at the committee meeting in Seattle. 1) Ascites in Broilers (Dr. Richard Julian), 2) Cutaneous Squamous Cell Carcinoma in Broilers (Dr. Barry Harmon) and 3) Chicken Anemia Agent (Dr. Karel Schat). Each topic will have a 5-10 minute oral presentation updating recent findings and a 5-10 minute question-and-answer period. All AAAP members are welcome to attend. In addition, the committee will discuss future committee involvement in issues of infectious bursal disease virus classification, terminology and subtyping. The annual written committee report to the AAAP membership will be delayed until after the July meeting.

Tumor Virus Committee
K. A. Schat, Chair

The main activity this year has been the organization of the AAAP/AVMA Symposium on Avian Tumors for Sunday July 28, 1991. Sixteen speakers will address topics on avian leukosis, Marek's disease, reticuloendotheliosis and squamous cell carcinomas. All speakers from universities or research institutes will present papers or posters during the regular program and received travel support from the AVMA. Combined with the support provided by the AAAP, we expect to have a balanced budget for the symposium.

USAHA Liaison Committee
Glenn Snoeyenbos, Chair

Nine resolutions pertinent to poultry health were discussed and passed by one or more committees of USAHA and subsequently approved by the Executive Committee and forwarded to USDA and other appropriate Federal agencies.

RESOLUTIONS

1. Resolved that USAHA sponsor a Salmonella Symposium in cooperation with federal and State agencies. Associations such as National Association of Federal Veterinarians (NAFV), American Association of Food Hygiene Veterinarians (AAFHV), National Association of State Meat and Food Inspection Directors (NASMFID), and the livestock and poultry industries to discuss new diagnostic tests, and review control programs that are being used in other countries involving cattle, swine and poultry.

2. Resolved that USAHA insist that USDA-APHIS take immediate action to enforce the Swine Health Protection Act and stress Federal-State cooperative efforts to eliminate the feeding of dead poultry to swine and urge the poultry industry to utilize the proper disposal of poultry carcasses on the farm or by other recommended procedures.

3. Resolved that USAHA encourage Centers for Disease Control, Dept of Health and Human Services to publish a condensed Salmonella Surveillance Report as early as possible after the end of the reporting year.

4. Resolved that USAHA encourage Food and Drug Administration, Center for Veterinary Medicine and state agencies to develop a salmonella monitoring program to determine the progress of the feed industry in reducing salmonella contamination of animal and poultry feeds.

5. Resolved that USAHA request that USDA should support:

a. Further development of videotapes on (a) farm processing of eggs; and (b) the safe handling and storage of eggs and poultry meat by post-processing distribution warehouses and chain stores.

b. Development of information and program aids by the Economic Research Service, USDA, on costs of disease and economic advantages of biosecurity practices in poultry production.

c. Efforts by the Extension Service and Animal and Plant Health Inspection Service towards (a) implementation of projects to develop biosecurity demonstration projects for poultry and other livestock species; and (b) additional videotapes, similar to those done for poultry, for other livestock operations (pork, beef, veal, and lamb).

6. Resolved that USAHA request USDA to make available all appropriate reagents (plate and HI antigens and control sera) for the diagnosis of Mycoplasma gallisepticum (MG), synoviae (MS) and meleagridis (MM) in both chickens and turkeys.

7. Resolved that USAHA recommend that USDA-APHIS implement an infectious laryngotracheitis eradication program on a State or defined area basis with enough flexibility to encompass all segments of the poultry industry, utilizing the "Guidelines for the Eradication of Infectious Laryngotracheitis (ILT) Encompassing the Broiler Industry, Table Egg Industry, Exhibition and Backyard Poultry" dated March 15, 1990.

8. Resolved that USAHA recommend that APHIS assume a leadership role in working with appropriate state agencies in developing a contingency plan for the quick and effective eradication of Pullorum outbreaks, especially focusing on complex commercial operations. Such a plan should employ 100% testing of suspect hatching egg flocks and prohibit the placement of chicks from any hatching egg flock(s) that have exhibited culture positive reactors, even though those reactors have been removed. Special provisions should be made for the salvage of valuable breeding lines.

9. The USAHA request USDA, APHIS-NPIP to:

Require a state that has been involved in a multiflock distribution of pullorum disease infected poultry to reaffirm the P-T Free status of all their hatcheries and breeding flocks within a nine month period or have their P-T Clean State classification revoked.

Determine the adequacy of NPIP policies, testing requirements and sampling procedures to detect pullorum disease in flocks implicated by trace back investigations of a pullorum disease outbreak.

Veterinary Licensing Committee
Lanny Howell, Chair

As chairman of the veterinary licensing committee, we never had a reason to have a formal committee meeting to date however, I had several discussions with members concerning one situation which should be of interest to all members.

As you know, many states require a minimum number of continuing education credits each year to maintain your veterinary license in that state. It has been brought to our attention that some states now require proof of CE units be submitted at the time of renewing your veterinary license. The State of Georgia is a good example.

All members should check with their state veterinary examining boards to see if this applies to them. If it does apply they should get some documentation as proof they attended additional training that counts toward CE credits.

WANTED TO BUY

Any one with a first or third edition of DISEASES OF POULTRY that they would be willing to sell please contact Dr. Robert Eckroade at 215-444-4282.

POSITIONS WANTED

Research Post Doctorate Position - I am a veterinarian with a PhD from the Academy of Agriculture and Technology, Poland looking for a position in the United States. My interests include livestock and poultry diseases, combine metal toxicity and their interaction with organophosphate insecticide, clinical pathology, histochemistry, histopathology, immunohistopathology electron microscopy and carcinogenesis. Please contact Muhammed Azhar Chishti, 130 Bradford St, Albany, NY 12206. PH 518-432-6035.

POSITIONS AVAILABLE

Dean, College of Veterinary Medicine - North Carolina State University invites applications and nominations for the position of Dean of the College of Veterinary Medicine, which becomes vacant on July 1, 1991, with the retirement of its first Dean. The Dean serves as the chief academic officer of the college which has 124 faculty members in four departments (Anatomy, Physiological Sciences: Companion Animal and Special Species; Food Animal and Equine Medicine; and Microbiology, Pathology and Parasitology). There are presently 276 professional students, 73 graduate students, 22 residents, 10 interns, plus a support staff of 265. Candidates must hold the Doctor of Veterinary Medicine degree or its equivalent and be qualified for appointment as Full Professor in one of the four academic departments. A graduate degree and specialty board certification in veterinary medicine or a relevant field are strongly desired. Candidates should have administrative experience, a strong commitment to excellence in teaching, research, and the service obligations to practitioners, clients and producers and an understanding of future trends in veterinary medical education. Applications should include a detailed curriculum vitae, a letter of intent and the names and addresses of at least five persons who may be contacted for reference. Applications will be reviewed until an acceptable candidate is identified. Interested persons or those who wish to make nominations should submit materials to Dr. Leonard S. Bull, Chair, Search Committee for the Dean of the College of Veterinary Medicine, Dept of Animal Sci, Box 7621, North Carolina State University, Raleigh, NC 27695. North Carolina State University is an affirmative action/equal opportunity employer.

Specialist in Avian Medicine - Assistant/Associate Professor, Tenure Track. College of Veterinary Medicine, Mississippi State University. Primary duties include service and field work, and research in support of the poultry industry. Teaching responsibilities include limited classroom participation with students in the DVM curriculum. Instruction of graduate students is anticipated. Candidates should possess the DVM or equivalent degree and advanced degree(s) and/or training in avian medicine. Candidates with experience in the poultry industry are highly desirable. Salary and rank are dependent on qualifications and experience. Position available immediately. Applications will be accepted until a suitable candidate is found. Qualified applicants are invited to submit a letter of interest, a current curriculum vitae, and the names of three references to: Dr. H. Graham Purchase, Director, Veterinary

Medical Research, College of Veterinary Medicine, PO Drawer V Mississippi State, MS 39762. Mississippi State University is an equal opportunity, affirmative action employer.

Assistant or Associate Professor of Veterinary Pathology - This is a tenure track, eleven month faculty appointment in the Food Animal Health Research Program, Department of Veterinary Preventive Medicine, Ohio State University. Duties include developing and leading a research program on infectious diseases of food producing animals. Participation in teaching and graduate training programs is expected. Collaboration with other researchers is expected and is essential. DVM and PhD degrees are required. Certification or eligibility for certification by the American College of Veterinary Pathologists is desirable. Candidate must be capable of directing a research program leading to scholarly publications. Salary is commensurate with qualifications. Applicants should submit curriculum vitae and names of three references to the chairperson of the search committee: Dr. Y. M. Saif, Food Animal Health Research Program, Ohio Agricultural Research and Development Center, 1680 Madison Avenue, Wooster, OH 44691. PH 216-263-3744. Application deadline is August 1, 1991 or until a suitable candidate is recruited. The Ohio State University is an affirmative action/equal opportunity employer.

Poultry Veterinarian - Poultry veterinarian wanted in central California. Must have a DVM degree and 2-10 years of experience in poultry (broilers). Responsibilities include all medical needs of a large poultry production operation. Company is totally integrated growing of birds to processing, sales and marketing. Salary ($50-75K) is commensurate with experience. Please contact Pat M. Difuria and Associates, 790 W Shaw Ave, Suite 310, Fresno, CA 93704. PH 209-222-5426.

Associate in Avian Pathology - The Schubot Exotic Bird Health Center of the Texas Veterinary Medical Center is offering a position for a veterinarian with post-DVM/VMD training and experience in anatomical pathology and with a specific interest in gaining experience in diagnosis of the diseases of pet, exotic and wild birds. The successful candidate will participate in all activities of the Pet, Exotic and Wild Bird Diagnostic Service which currently attracts 1400 to 1500 diagnostic submission a year. Responsibilities include necropsies and histopathological examinations, collect specimens as appropriate for ancillary post mortem diagnostic purposes., and report results to submitting veterinarians. The associate will also supervise graduate students and other trainees in the performance of necropsies, histopathological examinations and preparation of diagnostic reports. The salary for the one-year appointment (with the possibility of a one-year extension) is dependent upon qualifications and experience. Start date is June 1991. Applicants should submit a curriculum vitae, a letter describing their interest in the field and career objectives, and the names, addresses, and phone numbers of three individuals who are familiar with the applicant's professional abilities and performance. Applications should be sent to: Dr. David Graham, Schubot Exotic Bird Health Center, Texas Veterinary Medical Center, Texas A&M University, College Station, TX 77843.

NEW MEMBERS

BARBIERI Bruno
04,-,-
Avicola Del Norte, SA
Ave Jose Galvez Barrenechea
375 Urb Corpac
San Isidro
Lima
PERU
WORK 51-14-759074
FAX 51-14-759896
HOME 51-14-761370

BAXTER-JONES Colin
04,05,02-10
BUTA
PO Box 727
Lewisburg WV 24901
WORK (304) 647-4312
FAX (304) 647-3038
HOME (304) 645-4695

CHEN Joseph K
04,-,-
7901 Declaration Lane
Potomac MD 20854
WORK (301) 436-5869
HOME (301) 299-2931

EMANUELSON Karen Ann
02,-,-
1394 Morning View Ct
Concord CA 94521
WORK (415) 935-9080
HOME (415)686-4318

HOME Colleen L
02,09,01-02-05
Burtts Corner
NB EOH IB0
CANADA
WORK (506) 453-2210
FAX (506) 453-7918
HOME (506) 363-2444

KARPOVICH Michele M
07,-,-
2213 Nicholby Drive
Wilmington DE 19808
HOME (302) 990-8658

KEELER Calvin Lee, Jr
04,-,-
Department of Animal Science
and Agricultural Biochemistry
040 Townsend Hall
University of Delaware
Newark DE 19717
WORK (302) 451-2521
HOME (302) 453-9121

LEE Young-Zoon
04,-,-
9043 Winthrop Drive
Cincinnati OH 45249
WORK (513) 489-7184
HOME (513) 489-6916

MARSHALL Dana Robin
04,-,-
1626 Lake Drive #186
Haslett MI 48840
WORK (517) 337-6828
HOME (517) 339-0572

MARTINEZ Javier
04,02,10
Laboratory of Avian Medicine and
Pathology
382 West Street Road
Kennett Square PA 19348
WORK (215) 444-4282
FAX (215) 444-5387
HOME (215) 444-3973

MATHIS Greg F
04,-,-7
Rt 2, Box 705
Brock Road
Athens GA 30607
WORK (404) 354-1980
HOME (404) 549-5620

MCFARLAND Michael Dean
04,09,02
Arkansas Livestock and Poultry
Commission
Diagnostic Laboratory
3405 N Thompson
Springdale AR 72764
WORK (501) 751-4869
FAX (501) 751-0358
HOME (501) 756-3214

NOLAN Lisa Kay
02,-,-
#6 The Glenn
Athens GA 30605
WORK (404) 542-5797
HOME (404) 353-8913

PARRA Fernando
04,05,12
Arbor Acres Farm, Inc
Marlborough Road
Glastonbury CT 06033
WORK (203) 633-4681

PAYNE Christine Jayne
04,-,-
260 Animal Science Bldg
Madison WI 53706
WORK (608) 262-1291
HOME (608) 274-4831

RODENBERG Jeffrey H
04,03,10
Solvay Animal Health
1201 Northland Drive
Mendota Heights MN 55120
WORK (612) 681-3839
HOME (612) 773-9888

SINGBEIL Bruce Allen
07,-,-
PO Box 2471CS
Pullman WA 99165
HOME (509) 334-9000

SPASOJEVIC Radivoje
04,-,-
1608 SE 7th Ave
Apt 4
Willmar MN 56201
WORK (612) 235-1080
HOME (612) 235-8053

STRAUB Darren Emery
04,-,-
369 Co Rd 5 SW
West Hwy 12
Box 753
Willmar MN 56201
WORK (612) 235-3113
HOME (612) 235-5837

THOMAS Lee Ann
02,-,-
1416 Big Bluestem #206
Ames IA 50010
WORK (515) 239-8568
HOME (515) 292-2567

WANG Chinling
07,-,-
104 College Station Rd E201
Athens GA 30605
WORK (404) 542-5636
HOME (404) 369-7299

ADDRESS CHANGES

ALLS Alfred A
04,03,07
46 Fawn Drive
Laurel DE 19956
WORK (302) 934-9274

BERMUDEZ Alex J
02,02,03-10
Veterinary Medical Diagnostic Lab
University of Missouri-Columbia
PO Box 6023
Columbia MO 65205
WORK (314) 882-6811

CRESPO Gabriel
02,-,-
Produccion E Inversion Avicola S.A.
Box 1490
Valencia
VENEZUELA

DILLEHAY John
02,03,12
RR 2, Box 2051
Cullman AL 35055
WORK (205) 739-4766

DOMINGO Dan Torres
04,02,13
540 Oglethorp Ave
Apt H-7
Athens GA 30606
WORK (404) 542-5658, (404) 542-1904
FAX (404) 542-5630
HOME (404) 613-8903

FITZ-COY Steve H
04,02,03-10
Dept of Poultry Tech and Mgt
University of Maryland
Eastern Shore
Princess Anne MD 21853
WORK (301) 651-2200 Ext 357

GRASS Earl E
06,-,-
6901 Pintado Ct
Fair Oaks CA 95628

HEYER Gail W
02,02,02
Shore Exotic Bird Service
79 Goetze Street
Bay Head NJ 08742

JEFFREY Joan
02,-,-
California Veterinary Diag Lab Sys
Fresno Branch
University of California
2789 South Orange Ave
Fresno CA 93725
WORK (209) 266-9418

LEAL Simon J
02,-,-
C/O Select Laboratories, Inc
International Dept
PO Drawer 2497
Gainesville GA 30503

MERCADO M German
02,05,07
Granjas Avicolas Rancho Grande
Miguel Aleman Goonte
CD Obregon Sonora 85000
MEXICO
WORK (641) 44545
FAX (641) 40615
HOME (641) 33449

OBALDIA Nicamor III
02,10
Apdo 6-197
El Dorado
PANAMA
WORK (507) 27-4111 Ext 35
FAX (507) 25-4366
HOME (507) 64-3128

SMITH John Andrew
02,02,03
Fieldale Farms Corp
PO Box 558
Baldwin GA 30511

SOLANO Wilfrido
04,03,05-10-07
135 Winchester Way
Athens GA 30606
WORK (404) 535-7025
HOME (404) 354-8886

VANHOOSER Stanley L
02,09,02
Oklahoma Animal Disease Diag Lab
Oklahoma State University
Stillwater OK 74078
WORK (405) 744-6623
HOME (405) 377-4938

YATES Vance J
06,0-,-
40 Springhill Road
Kingston RI 02881
HOME (401) 783-1497

AAAP FUNCTION LIST
SEATTLE SHERATON HOTEL AND TOWERS

Friday, July 26, 1991

8:00 am - 7:00 pm	AAAP Board Meeting 4th Floor Board Room

Saturday, July 27, 1991

8:00 am - 7:00 pm	AAAP Board Meeting Douglas Room
9:30 am - 11:30 am	Diseases of Public Health Significance Cedar Room
12:00 pm - 8:00 pm	Poster Session Set Up Grand Ballroom - Section B

Sunday, July 28, 1991

7:00 am - 5:00 pm	****** Poster Session ****** Grand Ballroom - Section B
8:30 am - 5:00 pm	Avian Tumor Virus Symposium Grand Ballroom - Section C
5:00 pm - 7:00 pm	Biotechnology Committee Douglas Room
6:00 pm - 8:00 pm	Avian Histopathology Group Cedar Room

****** Coffee, juice and pastries will be available in the poster room each morning at 7:00 am

Monday, July 29, 1991

7:00 am - 5:00 pm	****** Poster Session ****** Grand Ballroom - Section B
8:00 am - 9:00 am	Enteric Diseases Committee Cedar Room
8:00 am - 9:00 am	Drugs and Biologics Committee Madrona Room
8:30 am - 9:30 am	Georgia MAM Alumni Group Aspen Room
9:30 am - 5:30 pm	Oral Presentations - Session A Grand Ballroom - Section C
9:30 am - 5:30 pm	Oral Presentations - Session B Grand Ballroom - Section A
12:00 pm - 2:00 pm	**Awards Luncheon** Grand Ballroom - Section A
1:00 pm - 5:00 pm	ACPV Organization Meeting Juniper Room
4:00 pm - 5:00 pm	Reference Antisera Committee Cedar Room
5:00 pm - 6:00 pm	Disease Reporting and Nomenclature Juniper Room
5:00 pm - 6:00 pm	Pet Bird Diseases Committee Cedar Room
5:00 pm - 7:00 pm	Toxic & Miscellaneous Infectious Diseases Committee Aspen Room
6:30 pm - 8:00 pm	History of Avian Medicine Cedar Room
7:15 pm - 8:15 pm	Economics & Quantitative Epidemiology Aspen Room

****** Coffee, juice and pastries will be available in the poster room each morning at 7:00 am

Tuesday, July 30, 1991

7:00 am - 5:00 pm	****** Poster Session ****** Grand Ballroom - Section B
7:30 am - 8:30 am	Skeletal Diseases Committee Juniper Room
8:00 am - 9:00 am	Editorial Board Cedar Room
8:00 am - 9:00 am	Tumor Virus Committee Douglas Room
8:30 am - 9:30 am	Diseases of Wild Birds Juniper Room
9:30 am - 5:30 pm	Oral Presentations - Session A Grand Ballroom - Section C
9:30 am - 2:45 pm	Oral Presentations - Session B Grand Ballroom - Section A
1:30 pm - 5:30 pm	ACPV Organization Meeting Juniper Room
4:10 pm - 5:30 pm	**AAAP Annual Business Meeting** Grand Ballroom - Section C

Wednesday, July 31, 1991

7:00 am - 9:00 am	AAAP Board Meeting Juniper Room
7:00 am - 5:00 pm	****** Poster Session ****** Grand Ballroom - Section B
9:30 am - 12:20 pm	Oral Presentations - Session A Grand Ballroom - Section C
9:30 am - 12:30 pm	Oral Presentations - Session B Grand Ballroom - Section A

****** Coffee, juice and pastries will be available in the poster room each morning at 7:00 am

AVIAN TUMOR VIRUS SYMPOSIUM
Sunday July 28, 1991

8:30 AM	Welcome	D.W. Waldrip AAAP President
Session 1	Lymphoid Leukosis and Avian Leukosis Virus David Swayne and Don Zander, Co-chairs	
8:40 am	Eradication of Avian Leukosis Virus: Techniques and Economical Importance J.L. Spencer	
9:00 am	Eradication of Avian Leukosis Virus by Breeder Companies: Results, Pitfalls and Cost Benefit Analysis W.B. Chase and G.L. Waters	
9:20 am	Discussion on Breeder Experience	
9:30 am	The Use of Vaccines and Transgenic Chickens to Control Avian Leukosis Virus. D.W. Salter	
9:50 am	General Discussion on Lymphoid Leukosis and the Control of Avian Leukosis Virus	
10:00 am	Break	
Session 2	Endogenous Leukosis Virus and Reticuloendotheliosis Virus H.G. Purchase and Linda Keller, co-chairs	
10:30 am	A Review of Endogenous Leukosis Virus and Interactions with Exogenous Avian Leukosis Virus E.J. Smith	
10:50 am	Economical Importance of Endogenous Leukosis Virus J. Gavora	
11:20 am	General Discussion on Endogenous Leukosis Virus	
11:30 am	Reticuloendotheliosis Virus: New Findings and the Impact on the Poultry Industry. R.L. Witter	
11:50 am	Lunch	

Session 3		Marek's Disease Bruce W. Calnek and Dan Weinstock, co-chairs
1:20 pm		Current Status of Marek's Disease in the Field. J.M. Sharma
1:40 pm		The Use of Serotype 2 Vaccines K.A. Schat
2:00 pm		Mechanism of Enhancement of Avian Leukosis Virus by Marek's Disease Vaccines D. Ewert
2:20 pm		Development of New Vaccines and Other Methods for the Control of Marek's Disease L.N. Payne
2:40 pm		The Impact of Chicken Anemia Virus and Other Infections on MD V. von Bulow
3:00 pm		General Discussion on Marek's Disease.
3:10 pm		Break
Session 4		Differential Diagnosis of Lymphoid Tumors, and Squamous Cell Carcinoma Pat Wakenell and Oscar Fletcher, co-chairs
3:30 pm		Differential Diagnosis of Endogenous and Exogenous Leukosis Virus A. Fadly
3:45 pm		Differential Diagnosis of lymphoid Tumors R.L. Witter
4:00 pm		Discussion on the Differential Diagnosis
4:10 pm		The Importance of Squamous Cell Carcinoma in Broilers R. Good
4:25 pm		Pathology of Squamous Cell Carcinomas in Broilers K.A. Langheinrich
4:40 pm		Discussion on squamous cell carcinoma
4:50 pm		Closing Remarks K.A. Schat
5:00 pm		Adjourn

SCIENTIFIC PROGRAM - AVMA
AVIAN SECTION
ORAL PRESENTATIONS
MONDAY-SESSION A

SESSION LEADERS: Yan Ghazikhanian and Alan Avakian

9:30 Application of *Mycoplasma Gallisepticum*-Polymerase Chain Reaction (PCR) Using Clinical Specimens
Elmiro Nascimento Richard Yamamoto Herrad Ortmayer Al Damassa

9:50 Effect of Size and (32) P-Labeling Method on Sensitivity and Specificity of *Mycoplasma Iowae* DNA Probes
Shaohua Zhao Richard Yamamoto

10:05 Efficacy on enzyme-inked immunosorbent assays (ELISA) to detect *M. synoviae, M. gallisepticum* and *M. meleagradis* antibody in turkey sera.
Charles Kelleher Mike Lemar Larry Jerome Martin Blankford

10:30 BREAK

11:00 Safety and Efficacy Testing of a Live *Mycoplasma Gallisepticum* Vaccine
Dennis Page Nikki Kinney

11:20 Laryngotracheitis-Epidemiology of Selected Field Cases
Martin Smeltzer

11:35 Direct Flourescent Antibody Test in the Diagnosis of Infectious Laryngotracheitis- A Summary of Results Of Clinical Cases Over An Eight Year Period.
Reynaldo Resurreccion John Swett Mark Goodwin

11:50 DISCUSSION

12:00 BANQUET

SESSION LEADERS: Max Brugh and Richard Slemons

2:00 Sensitive DNA probes for diagnosis of laryngotracheitis virus
Deoki Tripathy William Schnitzlein

2:15 The characterization of the S protein of a Nephropathogenic Strain of Avian Infectious Bronchitis Virus
Ellen Collisson Rebecca Parr Li Wang
Peggy Billingsley

2:30 Characterization of Monoclonal Antibodies Prepared Against the Spike Protein of Infectious Bronchitis Virus Strains Ark99, Conn46 and M41
Kemal Karaca Syed Naqi

2:50 Effect of Cytoxan R Induced Heteropenia on Respiratory Tract Response of Chickens in Infectious Bronchitis
Richard Fulton Willie Reed H. Thacker

3:00 BREAK

3:30 Effects of Massachusetts Infectious Bronchitis Vaccine on the Head-Associated Lymphoid Tissue of the Chicken
Roy Montgomery Danny Magee William Maslin
Ching-Ching Wu

3:50 Pathogenesis of infectious bronchitis virus infection in the respiratory system of chickens: Role of antibody versus cellular immunity in modulating virus persistence.
Syed Naqi Gertrude Thompson Kemal Karaca

4:10 Comparison of Antibodies Against Infectious Bronchitis Virus, Newcastle Disease Virus, Infectious Bursal Disease Virus, and Reovirus in Broiler Breeder Hens, Egg Yolks, and Broiler Chicks Using a Commerically Available Enzyme-Linked Immunosorbant Assay (ELISA) System.
David Rives Marie Davidian David Ley

4:30 Production and Characterization of Monoclonal Antibodies to Avian Group A Rotavirus
Linda Saif Shien-Young Kang

4:45 The effects of host age on group D rotavirus infections of pheasant chicks.
Don Reynolds Joseph Haynes Jerry Sell

5:00 Morphologic changes of the intestine of pheasants infected with type D rotavirus
Joseph Haynes Donald Reynolds

5:15 The Relationship between Duodenal Mast Cells, Circulating Basophils, and Lesion Formation in Hemorrhagic Enteritis Virus Infection in Turkeys

Kenneth Opengart Peter Eyre Charles Domermuth

SCIENTIFIC PROGRAM - AVMA
AVIAN SECTION
ORAL PRESENTATIONS
MONDAY-SESSION B

SESSION LEADER: Bruce Calnek

9:30 Increased incidence of bursal lymphomas in subgroup A avian leukosis virus-resistant transgenic chickens.
Donald Salter Lyman Crittenden

9:50 Immunogenicity and Field Safety Of Bivalent Vs. Trivalent Marek's Disease Vaccines Combined with a Live Attenuated Strain of Infectious Bursal Disease Virus.
Girish Sarma W. Solano J. Cruz-Coy D. Winkler

10:10 Avian nephritis virus (ANV): Prevalence of antibody in selected poultry flocks in the United States
LeeAnnThomas Donald Reynolds James Pearson
Dennis Senne

10:30 BREAK
(No Session B until 3:30)
12:00 BANQUET

SESSION LEADERS: Bob Good and A. Dhillon

3:30 Aflatoxin-mediated Suppression of Host Immune Response to Coccidial Antigen in Chickens
Hyun Lillehoj R. Cuero V. Stanley V. Duff

3:45 Influence of age on the incidence of furazolidone-induced cardiomyopathy in broilers
Willie Reed John VanVleet

4:00 Salt Toxicity in 13 Week Old Market Turkeys
Dennis Wages Martin Ficken

4:15 Case Report: An outbreak of erysipelas in a commercial psittacine aviary
Victoria Bowes

4:30 Acute Encephalopathy in a Flock of Commercial Toms
Timothy Cummings Marty Ficken Dennis Wages

4:45 An Automated System for Assessment of Virulence of Avian Influenza Virus Isolates and Its Use in Identifying the NS Gene as a Potential Virulence Determinant

Michael Perdue Bailey Mitchell Max Brugh Charles Beard

5:05 An avian leukosis virus of chickens belonging to a new subgroup

Laurence Payne Nathaniel Bumstead Judith Frazier Anne Marie Gillespie Kenneth Howes

SCIENTIFIC PROGRAM-AVMA
AVIAN SECTION
ORAL PRESENTATIONS
TUESDAY-SESSION A

SESSION LEADERS: Mark Jackwood and Syed Naqi

9:30 The ability to replicate in the upper respiratory tract differentiates A/chicken/Alabama/75 from eight waterfowl-origin influenza viruses.
Richard Slemons David Swayne

9:50 Urinary and Respiratory Pathogenicity of Influenza Virus A/Chicken/Alabama/75 in 5-week-old SPF Chickens: Effects of Route of Virus Inoculation
David Swayne Richard Slemons

10:10 Effect of a Single Passage in Chickens on Pathogenicity of A/Chicken/Pennsylvania/1370/83 (H5N2) Influenza Virus
Max Brugh Joan Beck

10:30 BREAK

11:00 Molecular Analysis of Infectious Bursal Disease Viruses
Jody Dybing Frederick Kibenge Patricia McKenna

11:20 Differential Detection of Infectious Bursal Disease Virus Serotypes using cDNA Probes to VP2 Coding Region
Frederick Kibenge

11:35 Detection of Infectious Bursal Disease Virus by Tissue Print Hybridization Using a Biotinylated Oligonucleotide Probe
Joseph Giambrone Terri Hatchcock

11:50 Neutralization of Infectious Bursal Disease Viruses by Monoclonal Antibodies
Sudhir Reddy Amer Silim Diane Frenette

12:05 Effect of infectious bursal disease virus on subpopulations of T lymphocytes in chickens.
Jagdev Sharma Jeff Rodenberg Robert Nordgren Bruce Sewart-Brown Susan Belzer

12:25 LUNCH

SESSION LEADERS: Aly Fadly and Roy Montgomery

1:30 Pathological and immunological changes induced by two isolates of serotype I IBDV in turkeys poults
Daniel Venne Amer Silim Yves Robinson

1:45 A Comparison Pathogenicity Study of Avian Reoviruses S-1133 and Arkansas SS-412
John Skeeles B. Berridge J. Beasley G. Bayyari A. Confer

2:00 Electrophoretic Analysis of Avian Reovirus Field Isolates from Eastern Canada.
Yatri Drastini Frederick Kibenge Patricia McKenna

2:15 Reovirus Associated with Excessive Mortality in Young Quail
Danny Magee Roy Montgomery William Maslin
Ching-Ching Wu Sherman (Skip) Jack

2:30 Profiles of Immunosuppression and Multiple Opportunistic Infections in Two Flocks of Breeder Chickens Raised Consecutively on One Farm
James Davis M. Goodwin C. Lamichhane

2:45 Diagnosis of Infections by the So-called Chick Anemia Agent: The Relationships Between Direct Transmission Electron Microscopy, Anemia, and Virus Isolation.
Mark Goodwin W. Steffens J. Davis K. Latimer
M. Smeltzer

3:00 BREAK

3:30 Physical, Genetic and Antigenic Comparison of Three Novel Animal Viruses with Nonenveloped, Icosahedral Capsids.
D. Todd F. Niagro B. Ritchie N. McNulty G. Allen
W. Curran K. Latimer W. Steffens P. Lukert

3:50 Recent results of research on chicken anemia virus in vivo and in vitro.
Vicco Von Bulow Sonja Kling Roland Rudolph

4:10 BUSINESS MEETING

SCIENTIFIC PROGRAM-AVMA
AVIAN SECTION
ORAL PRESENTATIONS
TUESDAY - SESSION B

SESSION LEADERS: Don Waldrip and Martin Ficken

9:30 *Salmonella enteritidis* infections in humans in the United States, 1985-1990
Morris Potter

9:45 Comparison of Avian and Human Origin Isolates of *Salmonella enteritidis* by DNA Fingerprinting.
Mazher Khan Lynn Hinckley Everett Bryant

10:00 Monitoring For The Risk of *Salmonella enteritidis* Through Testing of Eggs.
David Kradel

10:15 The Epidemiology of *Salmonella pullorum* in an Integrated Broiler Operation
Daryl Johnson Michael David

10:30 BREAK

11:00 Evaluation of immunoglobulin production in plasma, intestinal fluid, and bile of young white leghorn chickens experimentally infected with *Salmonella enteritidis*
Robert Porter Peter Holt

11:20 The Role of *Campylobacter jejuni* in the Pathogenesis of Poult Enteritis
Teresa Morishita Kenneth Lam Richard McCapes

11:35 State Veterinarian in Charge of Avian Health (DVM)
David Henzler Mike Opitz Donna Beane

11:50 Salmonella Control Program in Turkey Breeder Flocks in Minnesota
Benjamin Pomeroy K. Nagaraja Mahesh Kumar

12:10 Antigenic Characteristics of *Pasteurella multocida* Propagated in Iron-Depleted Media.
John Glisson Manuel Contreras I-Hsin Cheng

12:25 LUNCH

SESSION LEADERS: Mike Rosenstein and Fred Hoerr

1:30 Evaluation of Transpositional Mutants of a Pathogenic, Avian *Escherichia coli*.
Lisa Nolan Richard Wooley Kathy Spears John Brown Harry Dickerson

1:45 Evaluation of an Aluminum Hydroxide Adjuvanted *E. coli* Bacterin in Turkeys.
Darrell Trampel Ronald Griffith

2:00 Effects of Staphylococcus Aureus on the Clinical Expression of an Eimeria Maxima Infection in Broiler Chickens
Vincent Guyonnet John Smith Joyce Johnson John Glisson

2:15 Pathogenecity of *Bordetella bronchiseptica* isolates in turkeys
Lawrence Arp

2:30 In vitro effects of a crude *Bordetella avium* cytotoxin preparation on avian T-lymphocytes and macrophages.
Kenneth Powell Micheal Kogut

2:45 END

3:00 BREAK

3:30-4:10 Session A Continues

4:10 BUSINESS MEETING

SCIENTIFIC PROGRAM - AVMA
AVIAN SECTION
ORAL PRESENTATIONS
WEDNESDAY-SESSION A

SESSION LEADERS: Dan Weinstock and Danny Magee

9:30 Natural Killer Cells Mediating Cytotoxicity of Coccidia-infected Epithelial Cells are Induced During Avian Coccidiosis
Hyun Lillehoj

9:50 Purification of chicken interleukin 2 (IL2)
Thomas Myers Hyun Lillehoj

10:10 Criteria for the selection of indigenous African chickens for immunological response to disease
Jonathan Bell Gabriel Agbede Fred Demey
Antoine Verhulst Peter Horst

10:30 BREAK

11:00 Clinical Application of a Vaccine Analysis Program
John Brown Mark Goodwin

11:15 Immunohistochemical Diagnosis of Newcastle Disease
Susan Lockaby Frederic Hoerr

11:35 Toxicity of Aflatoxin, Ochratoxin or T-2 Toxin in Bobwhite and Japanese Quail.
Michael Ruff William Huff Gary Wilkins

11:50 Fumonisin B1 Mycotoxicosis in Chickens
Thomas Brown Danica Marijanovic

12:05 Case Report: Suspected DL methionine toxicosis in turkey poults.
Mark Bohling

12:20 END

SCIENTIFIC PROGRAM-AVMA
AVIAN SECTION
ORAL PRESENTIONS
WEDNESDAY-SESSION B

SESSION LEADERS: Willie Reed and Dennis Wages

9:30 The Relationship Between Oxygen Levels in Low Altitude Poultry Barns and Ascites in Meat-type Chickens.
Richard Julian Brian Wilson Bert West

9:45 Red blood cell rigidity a possible contributing factor to ascites in broiler chickens
Seyed Mirsalimi Richard Julian

10:00 Renal Histopathology in Late-Maturing Leghorn Pullets
Frederic Hoerr Shivaram Rao David Roland

10:30 BREAK

11:00 Condemnations due to Squamous Cell Carcinomas in Broiler Chickens in North Carolina: Incidence, Distribution, and Histologic Evaluation of Lesions
Daniel Weinstock Dennis Wages Sharon Heins

11:20 Pathology of Squamous Cell Carcinomas in Broilers - A review of Incidence and Diagnostic Accuracy at Inspection at the Slaughter Plant
Karl Langheinrich

11:40 Dermal Squamous Cell Carcinoma in Young Chickens
Scott Hafner Barry Harmon G. Rowland
R. Stewart J. Glisson

11:55 Pathogenicity differences in isolated of *Aspergillus fumigatus* in poults given intra air sac inoculation.
Michael Peden Keith Rhoades

12:10 Isolation of a highly pathogenic adenovirus from broiler chickens experiencing the "spiking mortality syndrome" on Delmarva.
David Snyder Chinta Lamichhane M. Goodwin

12:30 END

SCIENTIFIC PROGRAM-AVMA
POSTERS ACCEPTED FOR THE AVIAN SECTION

Effects of Experimental Marble Spleen Disease in Pheasants on T Lymphocyte Transformation In Vitro
Scott Fitzgerald Willie Reed Theodore Burnstein

Use of a Micro-Fluorescent Antibody Test to Quantitate Hemorrhagic Enteritis Virus Growth in Cell Culture
Lisa Newberry John Skeeles Mike Slavik Joe Beasley

One possible factor contributing to more frequent outbreaks of H4 versus H11 influenza in domestic poultry
Peter Condobery Richard Slemons

Detection of Avian Influenza Virus in Surface Water
Elizabeth Laudert V. Sivanandan D. Halvorson

Efficacy of Experimental Animal and Vegetable Oil-Emulsion Vaccines for Newcastle Disease and Avian Influenza
Henry Stone

Sensitivity and Specificity of an Immunohistochemical Method for Detecting Influenza Virus Nucleoprotein in Kidney Tissue
David Swayne Richard Slemons

Comparative Analysis of Three Velogenic Strains of Newcastle Disease Virus
Steven Palmieri Bailey Mitchell

Identification of infectious bronchitis virus by rapid RNA extraction and PCR
Mark Jackwood Hyuk Moo Kwon

Antigenic evaluation of IBDV strains using *in vitro* expression and radioimmunoprecipitation of VP-2 epitopes.
Jacqueline Crisman Daral Jackwood Dolores Lana

Pathogenicity Study of Infectious Bursal Disease Virus Attenuated Passages Using Indirect Fluorescent Antibody Staining in 96-well Plates
Geraldine Bayyari John Skeeles John Story Joseph Beasley

Immunohistochemical Diagnosis of Infectious Laryngotracheitis Using Monoclonal Antibodies
James Guy John Barnes Lynda Smith

Differences among restriction endonuclease DNA Fingerprints of Pennsylvania Field Isolates, Vaccine Strains and Challenge Strains of Laryngotracheitis Virus.
Linda Keller Charles Benson Sherrill Davison
Robert Eckroade

The Humoral Immune Response to Infectious Laryngotracheitis Vaccination as Measured by Enzyme Linked Immunosorbent Assay (ELISA)
Martin Blankfard Sherrill Davison

Outbreaks of Infectious Laryngotracheitis Virus in Broiler Chickens in North Carolina in 1990: A Flock Profile
Donna Carver Sharon Heins Dennis Wages John Barnes

Comparison of Histopathology to Direct Fluorescent Antibody for the Diagnosis of Infectious Laryngotracheitis in Chickens
Mark Goodwin Martin Smeltzer John Brown
Reynaldo Resurreccion Thomas Dickson

Immunogenicity of Fowlpox/Newcastle Disease Viral Recombinant
Vergil Davis Enzo Paoletti Jill Taylor

Rapid PCR Detection and Sequence Analysis of Avian RNA virus Genes in Allantoic Fluid
Michael Perdue John Latimer Max Brugh

An Outbreak of Papovavirus in a Finch Aviary
Patrice Klein Anthony Castro Carol Meteyer

Comparison of Monoclonal Antibody and Polymerase Chain Reaction in the Detection of Psittacine Beak and Feather Disease Virus in Paraffin-Embedded Tissues
Kenneth Latimer F. Niagro B. Rakich B. Ritchie R. Campagnoli

Leukocyte Involvement in the Pathology of Psittacine Beak and Feather Disease
Frank Niagro Kenneth Latimer Branson Ritchie
Phil Lukert Walstine Steffens

Serotyping of Avian Chlamydia Psittacine Isolates with the Microimmunofluorescence Test
Arthur Andersen

Role of endogenous avian leukosis virus (EV) in enhancement of lymphoid by serotype 2 Marek's disease virus
Aly Fadly Richard Witter

Mechanisms of Avian Retrovirus induced Pathogensis
Donald Ewert

The influence of ev6 on the immune response to avian leukosis virus infection in homozygous resistant rapid-feathering progeny of slow and rapid-feathering dams
Eugene Smith Aly Fadly Lyman Crittenden

Stable Transfection of Avian Lymphoblastoid Cells with Expression of Beta-Galactosidase
William Pratt Robin Morgan Karel Schat

Expression of the avian oncogene c-ski in a baculovirus vector
Dolores Lana Stephen Hughes

Attenuated revertant serotype 1 Marek's disease vaccines
Richard Witter

Investigation of severe losses from Marek's disease in vaccinated chickens
J. Spencer Frank Gilka

Characterization of early proteins of turkey herpesvirus
Karel Schat Daniel Weinstock Priscilla O'Connell

Heritability of resistance to a highly virulent and a moderately virulent Marek's disease virus and genetic relationship of the resistance to production
Jan Gavora Lloyd Spencer Hossein Ameli

Effect of cytokines on Marek's disease cell lines
Bruce Calnek Lucy Volpini Barbara Sneath Karel Schat

Thymic Atrophy and Tenosynovitis in Broiler Breeder Chickens
James Davis Mark Goodwin John Brown

Antimicrobial Susceptibility Testing: A 2 Year Summary
Douglas Waltman Alice Horne John Brown
Thomas Dickson

Pathogenic Factors of Chicken *Escherichia Coli* Strains: Comparative Study Among Pathogenic and Apathogenic Strains
Edir Silva Antonio Ferreira

Phagocytic and bacteriocidal activities of turkey and chicken heterophils and monocytes on selected avian bacterial pathogens
John Stabler Tim McCormick Kenneth Powell Michael Kogut

In vitro killing of *Pasteurella multocida* by turkey heterophils and macrophages
Barry Harmon John Glisson Jean Nunnally

Fowl Cholera Epornitic: Antigenic Characterization and Virulence of Selected *Pasteurella multocida* Isolates
Keith Rhoades

Increasing Incidence of Fowl Cholera in Broiler Breeders in Alabama
Charles Roney Boyd Hardin

Attachment and phagocytosis of *Pasteurella multocida* by turkey blood cells
Masakazu Matsumoto

Vaccination of Turkeys with Fractions of Cell-Free Culture Filtrate of *Pasteurella multocida*
Martin Ficken John Barnes Alan Avakian
Muquarrab Qureshi

Comparison of Four Procedures for the Detection of Salmonella from Poultry and the Processing Environment
Peggy Cook T. Woerner R. Apple T. Kral

Restriction endonuclease mapping of multiorigin strains of *Salmonella enteritidis*
Lois Bichler Kakambi Nagaraja Benjamin Pomeroy

Backyard flocks as reservoir of *Salmonella pullorum* and *Salmonella gallinarum* in Morocco
Khalid Bouzoubaa Khalid Leminguer Jonathan Bell

Effect of diacetoxyscirpenol on salmonella challenged broiler chicks
Marcel Elissale Richard Ziprin William Huff
Andrew Yersin Leon Kubena Roger Harvey

Bacteria Involved in Osteomyelitis-Synovitis Lesions in Turkeys At Processing
Nicholas Primm John Barnes

Flow Cytometric Analysis of Hetrophil Phagocytosis in Healthy Chickens and in Chickens with Staphylococcal Tenosynovitis
Claire Andreasen Kenneth Latimer Julie Golden

Acute Airsacculitis in Untreated and Cyclophosamide-Pretreated Broiler Chickens Inoculated with *Escherichia coli* Culture or Cell-Free Filtrate
John Barnes Morella De Rosa Martin Ficken

Mycotoxicoses in Poultry in India
S. Chawla

Blood Oxygen Levels of Fast-Growing and Slow-Growing Meat-Type Chickens and Those with Ascites from Right Ventricular Failure
Richard Julian Mehdi Mirsalimi

Intraendothelial Yeast-Like Organisms Causing Disease in Muscovy Ducks and Other Waterfowl
Chris Randall Richard Julian Terry Beveridge

The roles of wildlife as reservoir for *Borrelia burgdorferi*
Katherine Bishop Mazhar Khan Svend Nielsen John Post

A Case of High Mortality in Domestic Turkeys Due To *Ascaridia dissimilis*
Robert Norton B. Hopkins J. Skeeles J. Beasley T. Yazwinski

Establishment of a 35mm transparency slide bank of Avian Diseases
Jean Sander Richard Davis

A Survey of Gross Necropsy Lesions in the Southwestern Poultry Region form 1989-1991
Alan Sharpton

Monoclonal antibodies developed against *Eimeria brunetti* with in-vivo cross species neutralizing capabilities.
Robert Nordgren Thomas Gore Gary Petersen

High Mortality in Muscovy Ducks and Puffins
A. Dhillon Gordon Hullinger Oriki Jack Nahla El-Mahdy

Puffin Pox virus: Virus Isolation and Identification, Transmission and Cross-challenge Study In Chickens
A. Dhillon Oriki Jack Nahla El-Mahdy

Correlation of Gross and Smear Protection Microscopic Findings in *Eimeria acervulina* Infected Chickens.
Lloyd Keck Adelbert Hamilton Quinton Hanssens

Identification of *Mycoplasma gallisepticum* proteins that induce immunoglobulin location in the upper and lower respiratory tract of chickens
Alan Avakian David Ley

Polymerase Chain Reaction for Detection of *Mycoplasma synoviae*
Lloyd Lauerman Vicky Van Santen Hana Hyman

A Simple Immunodot Paper for Easily Carrying Out Dot-Blotting Assay
Michael Lin

Development of a growth-inhibiting antibody response following intranasal exposure to a temperature-sensitive mutant of *Mycoplasma gallisepticum*
Al DaMassa Kenneth Lam

The use of egg yolk in the Enzyme Linked Immunosorbent Assay to determine the Prevalence of *Mycoplasma gallisepticum* antibody in Pennsylvania layer flocks
Sherrill Davison Kimberly Sprout Robert Eckroade
Stanley Kleven