AMERICAN ASSOCIATION OF VETERINARY LABORATORY DIAGNOSTICIANS, INC.

DECEMBER 1999 NEWSLETTER



E. P. POPE AWARD

Dr. Stan Snyder, immediate Past
President, (left) presents the prestigious E. P. Pope Award to Dr. Don Lein (right) for his noteworthy contributions and service to the Association and the specialty of veterinary diagnostic medicine

2000 Executive Board

PresidentBruce Akey
President-ElectDavid Zeman
Vice PresidentPat Blanchard
Immed. Past PresidentDoris Miller
Secretary/TreasurerArt Bickford
North EastBeverly Byrum
South EastFred Hoerr
North CentralGary Osweiler
South CentralWilliam Edwards
North WestJerry Heidel
South WestFrank Galey
Canada ProvincialGrant Maxie
Canada Federal, Ex-officioW.D.G. Yates
Ex-Officio, NVSLOPEN

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President's Message.....

It was great to see so many colleagues at this year's annual meeting in San Diego. Thanks to the splendid efforts of the Program Committee, David Zeman, Melissa Behr, François Elvinger and Catherine Barr, and the skills of the moderators, the scientific sessions were top notch. Special thanks also to Lorraine Hoffman, Ching Ching Wu, Melissa Libal and Bob Walker for putting together an excellent Plenary Session on Antimicrobial Resistance and Susceptibility Testing, a timely and well received topic. David Zeman and Pat Blanchard came up with the idea of surveying the attendees to get their feedback on the meeting. Some of the most frequently mentioned likes were 1. The pre-meeting workshops, histopathology slides program and bacteriology case presentation sessions were practical and well received. 2. The Antimicrobial Plenary Session was a hit. 3. Grouping all the Graduate Student presentations together. Some of the dislikes most frequently mentioned were 1. Too many sessions which overlapped, particularly this year between AAVLD Scientific Sessions and USAHA committee meetings. 2. Length of time for presentations, 15 minutes was often not enough to do a good job. 3. Need more time set aside for visiting the poster presentations. David Zeman and Pat Blanchard will be working on some scheduling changes for next year to offset the recent changes by USAHA that have created some conflicts for the Scientific Sessions. I am sure they would be happy to have your suggestions.

There were several topics that were prominent at this year's meeting and will continue to push both the AAVLD and the USAHA for action in the coming year. First, the issue of increased antimicrobial resistance in human clinical isolates and the relationship of this phenomenon to the use of antibiotics in animals was highlighted by both organizations with special sessions. Some aspects of this controversy that AAVLD needs to address include the selective reporting of antibiotic sensitivity results to practitioners, standardization of susceptibility test panels and how and if veterinary laboratories will become involved in national surveillance programs monitoring antibiotic resistance trends.

Another prominent issue concerns the globalization of trade and the impact of international regulatory and standards setting organizations such as the World Trade Organization and the Office International des Epizooties. Decisions made by these groups will affect laboratory accreditation standards as well as the standards for individual tests. To keep informed on developments in this area and make sure that the US has well-informed input on the rule-making and standards-setting process, the USAHA has established a special committee. The committee is comprised of the USDA Trade Representative, USDA Chief Veterinary Officer, President and 1st Vice President of USAHA and the President and President-Elect of AAVLD. Expect to receive updates throughout the year and requests for your thoughtful comments on OIE and WTO proposals.

Finally, it appears that AAVLD is overdue for a strategic planning session to consider where we are now and where the organization wants to go in the future. In many ways we have reached a significant point in the development of the organization and are poised to emerge in a more prominent national and international role if we so desire. To this end, I would appreciate hearing what you consider to be the critical issues facing the veterinary diagnostic profession and the AAVLD in the next few years. We will be holding a strategic planning session at the February 2000 winter meeting of the Executive Board as a start.

You can reach me at (804) 786-9202 or better yet, by e-mail at bakey@vdacs.state.va.us.

Dr. Bruce Akey, AAVLD President

From the SECRETARY-TREASURER:

To those who have already paid dues for the year 2000 <u>MANY THANKS</u>. If you have not <u>please pay NOW</u> so that we can complete updated lists for Journal mailing and Membership Directory Publication.

Minutes of the AAVLD Executive Board Meeting

October 8, 1999 - San Diego, California Town and Country Hotel

CALL TO ORDER: President Miller called the meeting to order at 1:10 PM

ATTENDEES: President D. Miller, President Elect B. Akey, Vice President D. Zeman, Past President S. Snyder, Secretary-Treasurer A. Bickford; Directors S. Rowell, G. Osweiler, B. Edwards, J. Heidel, F. Galey, W. Yates, Newly elected officers for 2000- Vice President Pat Blanchard and Directors: F. Hoerr (S. E. Regional), B. Byrum, (N.E. Regional), G. Maxie (Canadian Regional), Newsletter Editor P. Blanchard, L. Thacker, J. Case, T. Treadwell (CDC).

APROVAL OF MINUTES: The minutes of the July 1999 Executive Board meeting in New Orleans were considered for approval. Approval was moved and passed.

SECRETARY-TREASURER'S REPORT: Budgetary status from January 1, 1999 to September 30, 1999 was detailed as follows:

GENERAL OPERATING BUDGET

Checking Account Balance On Hand January 1, 1999: \$100,329.32

 Total Receipts:
 \$94,649.94

 Total Expenses:
 \$129,848.49

Ending Balance September 30, 1999: \$65,130.77

AAVLD SECURITIES

Certificates of deposit as of September 30, 1999: \$26,321.97 Mutual Funds Account as of September 30, 1999: \$187,017.78

TOTAL ASSETS ON HAND as of September 30, 1999 \$278,196.80

AAVLD FOUNDATION

Checking Account Balance September 30, 1999: \$18,405.76

As of September 30, 1999 we had 1,105 active members and 201 paid subscribers to JVDI.

Accountants Williams Keepers of Columbia, MO reviewed the AAVLD accounts for fiscal year 1998- all accounts are in good condition per their review. Current expenses are about \$30,000 more than income and there may be a need for increased dues and/or subscription fees in the future to cover this budgetary deficit. Efforts to increase membership were made by sending a letter to avian diagnosticians who are not AAVLD members. A total of 106 diagnosticians were invited to become members of AAVLD. Seven new memberships have been received since the mailing of the letter.

Approval of the report of the Secretary-Treasurer was moved and passed.

PRESIDENT'S REPORT: Dr. Doris Miller acknowledged and expressed sincere gratitude to all the AAVLD members who made this a successful year. She congratulated our new elected officers for 2000 — Dr. Pat Blanchard, Vice President and Directors Dr. Fred Hoerr, South East Region, Dr. Bev Byrum, North East Region and Dr. Grant Maxie, Canadian Region.

Dr. Miller invited Dr. Traccee Treadwell, Dr. Dick McCapes and Dr. Francois Elvinger to speak to the Executive Board about the following:

A: Dr. Tracee Treadwell of the Center for Disease Control discussed the threat of bioterrorism and asked for help from AAVLD with the surveillance system. She indicated the CDC is looking into ways to circumvent the \$15,000.00/ site fee for select agent registration that would prevent veterinary diagnostic laboratories from taking part in bioterrorism surveillance efforts.

B. Dr. Dick McCapes reported on long range planning by USAHA and USAHA's recommendations for the hiring of an executive secretary for their office in Richmond, VA. They asked AAVLD if they might consider sharing expenses for this position. The following is the Synopsis of Recommendations of the Board of Directors presented by Dr. McCapes:

- 1. Hire a half-time Executive Secretary during 2001 year at salary of \$30,000 and a total estimated cost of \$57.851.
- 2. Increase USAHA 2001 annual dues and annual meeting registration fees to defray the cost associated with the half-time Executive Secretary position as follows:
 - a) Individual members dues Increase from \$75 to \$100
 - b) Official Agency and Allied Organization dues Increase from \$300 to \$600
 - c) Annual meeting registration fee increase for USAHA and AAVLD members from \$180 in 1999 to \$220 and for non-members from \$200 in 1999 to \$230
 - d) Increased dues and fees will provide an estimated \$72,708 of excess revenues to cover the costs of the half-time position
- Appoint a volunteer, non-salaried Secretary for 1999/2000 whose duties would include guiding the
 Association through the transition period leading to the hiring of Executive Secretary in 2001. Expenses associated with the volunteer position to be paid by the USAHA Association
- 4. Past President McCapes will continue to provide support to mutually agreed areas of the transition until October 2000 if deemed necessary by incoming President Zirkle and the Board. Transition associated expenses to be paid by the USAHA Association.
- 5. Separate the Secretary and Treasurer positions in 1999. The Board will make suggestions to the Executive Committee of an individual(s) for appointment as Secretary and to the Nominations and Resolutions Committee of an individual(s) nomination for the office of Treasurer.
- 6. Move to hire a full-time Executive Secretary as soon as we can afford to do so.

C. Dr. Francois Elvinger presented the draft of USAHA Standard Operating Procedures of committees, which can be modified for use by AAVLD. For more information please contact him directly.

ACCREDITATION COMMITEE REPORT: Committee Chair, Dr. Leon Thacker, spoke of proactively looking at recommendations for QA/QC international standards. He also spoke of Wisconsin being given a provisional accreditation in July for 1 year. Dr. Thacker reported that the Accreditation Committee needs to add two new members from Canada to assure compliance with the bylaws. At the Executive Board meeting in July a decision was made that laboratories visited for accreditation may pay for food and lodging if they offer. However, all transportation costs will be picked up by the Accreditation Committee funds. Dr. Thacker also reported that the Accreditation Committee has been invited to do site visits at Oregon State and South Carolina.

FINANCIAL ADVISORY COMMITTEE REPORT: Dr. Thacker reported that there is currently \$175,000 in CD's and mutual funds in reserve accounts compared to \$74,000 in 1993. It was decided to not move CD's or mutual funds at this time and not increase dues due to the fact that AAVLD is a "not for profit agency".

PROGRAM COMMITEE: President-elect, Dr. Bruce Akey noted the abstract books have been printed at Kinko's in San Diego and will be delivered for distribution. The possibility of having the abstracts available on the Web Site prior to the Annual Meeting was discussed. The graduate students' presentations will be together for the first time and LCD Computer Projectors will be available for sessions. Dr. Akey also proposed restructuring committee and scientific sessions for AAVLD and USAHA adding common interest areas in the middle and shortening time periods. There are 40 USAHA committee sessions over 4 days and elimination of 10 sessions would then reduce the annual meeting by one day.

CANADA REPORT: Dr. Yates introduced Dr. Grant Maxie as the new Canadian Regional representative and presented the Canadian Food Inspection Agency Report as follows:

- 1. <u>Disease Updates</u>: There have been approximately 30 confirmed cases of Anthrax in horses and cattle in Alberta this year. Ontario province has also reported their first 3 cases of raccoon rabies which has moved north from the US.
- 2. New Director of Animal Health and Production Division, CFIA. Robert Morrison, DVM, was appointed to this position on 1 September 1999. He reports to Canada's Chief Veterinary Officer, Dr. Brian Evans. Dr. Morrison is responsible for Canadian animal health policy and standards, importation/exportation of animals and animal products, the evaluation and licensing of veterinary biologics, and the regulation of animal feeds. His past experience includes private large animal practice, and being a Provincial Veterinarian.
- 2. <u>OIE.</u> Dr. Norman Willis is Executive Director of Canada's National Centre for Foreign Animal Disease at Winnipeg. Currently he is also President of the International Committee and President of the Administrative Commission for the OIE. As he is the first North American to hold the latter elected position, I asked him for an update on OIE activities The General Session is always held in Paris, France. At the May 2000 session, there will be elections of the heads of all Commissions, as well as of a new Director General to replace Dr. Blancou. Dr. Willis is chairing a working group that is producing the OIE's third Strategic Plan, to run for the period 2000-2005. The Eaton Consulting Group of Boston is assisting in the process of preparing this plan.
- 3. New Member of the AAVLD Executive Board, Dr. Grant Maxie. As a result of an amendment passed several years ago, both federal and provincial veterinarians represent Canada on the Board. We were fortunate to convince Dr. Grant Maxie of Guelph, Ontario, to run for election. Grant is an ACVP Board Certified Pathologist with many years of experience in laboratory work and management, and is currently Manager of the Animal Health Laboratory in Guelph. He is also a contributing author of the well-known textbook Pathology of Domestic Animals by Jubb, Kennedy, and Palmer, and currently co-editing a new edition of that text.

NEWSLETTER EDITOR REPORT: Dr. Pat Blanchard noted that the newsletter is now available on the web, which greatly reduces costs. The expenses for the last issue were \$1200 rather than \$4400 for previous mailings. There are now 825 members who get newsletters via e-mail and 275 receive mail hard copies. We will need to get an individual to take over Emily Sanson's job of formatting the Newsletter in PageMaker.

MEMBERSHIP/CREDENTIAL REPORTS: Dr. David Zeman requested approval to send *The Journal of Veterinary Diagnostic Investigation* 10 year CD ROM to the directors in the British Isles with a letter about the organization to recruit new members. The Board was in agreement as many CD ROM copies are still available. Dr. Zeman discussed sending letters to potential members (especially in Aquaculture) listed in the 1995 edition of the APHIS directory of diagnostic laboratories.

NOMINATION COMMITTEE: Dr. Stan Snyder congratulated Dr. Pat Blanchard (Vice President, 2000), Dr. Fred Hoerr (South East Representative), Dr. Bev Byrum (North East Representative) and Dr. Grant Maxie (Canadian Representative) on their recent election. Dr. Snyder also proposed the list of life membership nominees to be presented to the House of Delegates.

NVSL REPORT: Dr. Art Davis reported there has been a wide search of candidates for the Director of NVSL; they are hoping to have the position filled by March and are currently rotating the directorship. NVSL is working with a new LIMS system, please bear with them. There are foreign animal disease training opportunities planned this year: one international, one for Classical Swine Fever in January 2000 and two for State, University and Military. The latter two will be held March 6-17, 2000 and August 7-18, 2000 at Plum Island, Long Island.

OTHER:

- A. Dr. Zeman spoke of a letter regarding the AAVLD Executive Board Response to the July 1999 Foundation Committee Report---- subjects included- 1. Foundation committee review guidelines 2. Foundation contributor recognition, and 3. Foundation committee promotional funds. These guidelines were approved.
- B. The Executive Committee has created a new ad hoc committee for strategic long range planning. Drs. Blanchard, Zeman and Thacker volunteered to serve and the President will appoint additional members.

OLD BUSINESS:

- A: An AAVLD bylaws change that will allow for a change in dates for dues payment was discussed. This issue will be taken to the House of Delegates by Dr. Andrews, and voted on by members. (See Constitution and Bylaws Committee report on page 17).
- B: Patrons/Exhibitors- This year there was a total of 25 exhibitors which is the most participants we've had in recent years. The number of patrons remains at 7.

NEW BUSINESS:

- A: Dr. Osweiler reported that the AAVLD Web site is running well.
- B: Salary Data Dr. Harrison not present
- C: Dr. Zeman spoke about getting sponsors to pay for guest speakers at the second plenary sessions next year. The second plenary session will focus on the future expectations of diagnostic laboratories by industry, animal agriculture, government and international groups.

ANNCOUNCEMENTS:

- A: The location of the winter meeting was voted on and the decision was made to stay in Las Vegas for 2000, with a possible move to Washington, DC in 2001 to join the USAHA Government Relations Committee Meeting. Dr. Akey stressed the positive aspects of going to Washington to have more insight on what is going on with the Federal Government and raise the visibility of AAVLD.
- B. The Executive board passed unanimously a motion to give Dr. John Shook, Secretary/ Treasurer of the USAHA, a check to be included Sunday night in a surprise presentation in his honor. He will be retiring this year.

ADJOURNMENT: 4:10 PM

POST ADJOURNMENT ADDENDUM: At the July Executive Board Meeting Dr. John Kreeger, JVDI Editor, had raised the issue of hiring an Editorial Assistant to help with the increasing workload of the Journal Office. Dr. Kreeger could not attend this meeting due to illness but President Miller contacted him by telephone and obtained an update on his plans for the position. She then polled Board members and a majority approved funding the position. Dr. Kreeger will update the Executive Board on the position and progress on recruitment at the February Board Meeting.

MINUTES OF HOUSE OF DELEGATES - 1

October 9, 1999 San Diego, California

CALL TO ORDER: President Miller called the meeting to order at 4:10 PM

ROLL CALL: Secretary-Treasurer Bickford called the roll of delegates representing states and provinces and declared a quorum for the conduct of business (36 delegates attending).

REPORT OF SECRETARY-TREASURER: Dr. Bickford presented the financial report as of September 30, 1999 (See Executive Board minutes).

REPORT OF THE PRESIDENT AND EXECUTIVE BOARD: President Doris Miller expressed her thanks to all for their help with preparations for the Annual Meeting and extended special gratitude to AAVLD Committee Chairs. She also presented a brief synopsis of several issues facing AAVLD and USAHA in the coming year.

COMMITTEE REPORTS:

- 1) Constitution and Bylaws: Dr. Andrews presented first notice of changes to the constitution and Bylaws relating to Article VIII Section 6 (Nominating Committee) and Article IX Section 9 (Dues). The full report is presented by Dr. Andrews on Page 17.
- 2) Awards: Report to be presented at 2nd HOD Meeting.
- 3) Membership: Report by Dr. Zeman (page 22).
- 4) Publications: Report by Dr. Meerdink (page 25).
- 5) Foundation: Report by Dr. Meerdink (page 19).

OLD BUSINESS: None **NEW BUSINESS:** None

ADJOURNMENT: President Miller adjourned the meeting at 4:25 PM.

MINUTES OF HOUSE OF DELEGATES - 2

October 11, 1999 San Diego, California

CALL TO ORDER: President Miller called the meeting to order at 11:00 AM

ROLL CALL: Secretary-Treasurer Bickford called the roll of delegates representing states and provinces and declared a quorum for the conduct of business (31 delegates attending).

TRANSFER OF GAVEL: President Doris Miller again thanked all who contributed to making 1999 a successful year and called forward Dr. Bruce Akey to receive the gavel as incoming President. President Akey presented Dr. Miller with a symbolic gavel and a plaque acknowledging her service as President with sincere thanks on behalf of the AAVLD membership (see photo on page 29).

COMMITTEE REPORTS: President Akey called for reports from Standing Committees, particularly those, which had not reported at the October 9th meeting. Reports are presented in detail on the referenced pages of the Newsletter.

- 1) Accreditation: Report presented by Dr. Thacker (page 10).
- **2) Awards:** Past President and Committee Chair Snyder presented the E.P. Pope Award to Dr. Donald Lein (photo cover page) just prior to the HOD meeting. He announced the Graduate Student Awards to Drs. L. Hassan (Cornell University) and Christie Loiacono (University of Missouri) (photos page 29) for their respective presentations entitled "Prevalence of *Listeria monocytogenes* and *Salmonella* Species in Milk Filters on New York Dairy Farms" (Plenary Session) and "An Outbreak of Epizootic Hemorrhagic Disease in Missouri Cattle" (Poster Session). Dr. Snyder also presented the following nominees for Life Membership: Dr. Martin E. Bergeland, Dr. Anthony M. Gallina, Dr. Lloyd Lauerman, Dr. Gaylord E. McKissick, Dr. Stuart L. Nelson Sr., Dr. John C. Shook. Acceptance of these nominees was moved and passed unanimously.

3) Constitution and Bylaws: Dr. Andrews offered the second reading of suggested changes in the composition of the nominating committee and the date of payment of annual dues. Following discussion of the wording of the changes, a motion to accept the Constitution and Bylaws changes was seconded and passed unanimously. The entire report specifying the detailed changes and wording is presented on page 17.

The Nominating Committee changes allow for inclusion of a Canadian member (Region 7).

Dr. Zeman presented the rationale for the change in the date of payment of annual dues. Basically, the suggested change will allow for more timely collection of dues so that directory preparation and mailing lists for Newsletters and Journals can be updated early in the fiscal (calendar) year. Existing Bylaws specify that dues are payable on January 1 and membership lists are purged 3 months later (April 1) which means that 2 issues of JVDI might be mailed to non-paying members and the Directory is delayed until May. Dr. Zeman moved that dues be payable by November 1 in 1999 (for 2000) and by October 1 2000 (for 2001) and the motion was seconded. There was much discussion of the wisdom of two changes and it was moved that Dr. Zeman's motion be amended to specify one change – dues for 2001 will be payable by October 1 in 2000. Dr. Zeman accepted this amendment and the amended motion was seconded and passed unanimously.

OLD BUSINESS: None

NEW BUSINESS: President Akey noted that the AAVLD Executive Board meeting will take place in February in Las Vegas but that future Winter meetings will likely be held in conjunction with the USAHA Government Relations Meeting in Washington, D.C. He reminded the HOD membership of our next Annual Meeting in Birmingham, Alabama on October 20-27, 2000. (Post meeting note: Winter Executive Board meeting will be February 24, 2000 from 1:00 to 5:00 pm at the Gold Coast Hotel in Las Vegas).

ADJOURNMENT: President Akey adjourned the meeting at 11:45 AM.



Year 2000 officers: (left to right) David Zeman (President-elect), Doris Miller (immediate past President), Bruce Akey (President), Pat Blanchard (Vice President) and Art Bickford (secretary and treasurer).

Annual Meeting Committee Minutes

ACCREDITATION COMMITTEE

Over the past year the accreditation committee met for 4 hours on February 17 in Las Vegas, 4 hours on July 11 in New Orleans, 13 hours in San Diego. Site visits made in 1998 were Minnesota, North Carolina, Montana, Oklahoma, South Dakota and Tennessee. Site visits made in 1999 included Connecticut, Florida, Hopkinsville, KY, Lexington, KY, Ohio, College Station, TX, Amarillo, TX. Upcoming visits in 1999 include Indiana/Purdue, Missouri, Guelph, Canada and Nebraska. Visits scheduled for 2000 are Washington State, Wyoming, South Carolina, Oregon State and Arizona.

The Committee has deliberated and discussed extensively quality assurance issues and reviewed ISO/IEC Guide 58, ISO/DIS 17025 General Requirements for the competency of Testing and Calibration Laboratories and the recent Draft of OIE Standard for Management and Technical Requirements for Laboratories Conducting Tests for Infectious Animal Diseases. The latter is in comment period from the OIE with expected action in May 2000. Belinda Goff and Dr. Ann Weigers, the new QA officer of NVSL, have assisted the committee in quality assurance deliberations.

The committee will recommend that President Akey invite two new members from region 7 (Canada) to join the committee as mandated by the constitution. The committee agreed to limit the optional charging of site visit expenses incurred to local expenses incurred by the site visit team.

ADMINISTRATIVE MANAGEMENT PERSONNEL COMMITTEE

Saturday, October 9, 1999 and Sunday, October 10, 1999, Paulletta King, chair.

There were 16 people in attendance representing 11 different laboratories from across the country and Canada.

Ralph Cobb gave a report on the World Association of Veterinary Laboratory Diagnosticians which was

held in College Station, Texas.

Theresa Thompson from the Livestock Disease Diagnostic Center in Lexington, Kentucky gave a presentation on the financial reporting methods she uses in her lab for orders, inventory, and billing. Dennis Downing also demonstrated the LDDC billing program he customized.

Belinda Goff, PhD, a Registered Quality Assurance Professional in Good Laboratory Practices, presented a program on *Quality in Veterinary Diagnostic Labs*. She stressed the importance of standard operating procedures (SOP) for every section of your Diagnostic Lab.

Owen Schroeder gave a very informative electronic tour of the Breathitt Veterinary Center at Murray State University in Hopkinsville, Kentucky.

Geraldine Jessup from the University of California Davis reported on their newly completed Equine Drug Testing Laboratory.

Round table discussions held on other topics included SOPs for administrative processes, quality assurance training sessions that are available, accepting credit cards for accounts receivable payment and the frequency of fee increases and how they are determined.

Linda Yankovich of the Purdue Animal Disease Diagnostic Lab agreed to be the next committee chair. She will take over after the 2000 meeting in Birmingham, Alabama.

Agenda items for next year's meeting include two electronic lab tours - Geraldine Jessup will give us a tour of the 5 California Diagnostic Labs as well as their new Equine Drug Testing Lab, and Ralph Cobb will give a tour of the Texas Veterinary Medical Diagnostic Lab. Everyone in attendance will be asked to present unique ways they use their computer to make their job easier. Additional agenda items should be forwarded to Pauletta King.

ANALYTICAL TOXICOLOGY ADVISORY COMMITTEE

October 9, 1999, Dr. Anant Jain, chair

AAVLD Veterinary Analytical Toxicology Advisory Committee, Analytical Toxicology General Meeting and USAHA Environmental Residue Committee met concurrently.

Classification and ranking of analytical toxicology methods, reporting of results, comments with reports, and certification and professional development of technicians and analytical toxicologists was discussed. It was decided that these items be left to individual laboratories. The laboratories can implement these according to their needs.

Dr. Emmett Braselton discussed the availability of various check samples, which can be used in analytical toxicology laboratory. A list of available check samples is available from Dr. Braselton.

Dr. John Reagor presented a brief history of the analytical toxicology group. The group met for the first time in 1979 at the same hotel (Town and Country, San Diego, CA).

Dr. Mike Simonsen of InteLab Corporation discussed the technology behind headscan, a hand-held meter for screening of blood lead with a disposable sensor. The method requires 18 microliters of whole blood.

Experiences with fumonisin determination, solid phase extraction of biological samples and screening nitrate in forages with a test strip were also discussed.

Screening nitrate in forages with a test strip is now an official first action method of AOAC International. The collaborative study was published in J. AOAC Int. 82, No. 1, 1999, pp. 9-13.

ANIMAL HEALTH INFORMATION SYSTEMS JOINT AAVLD/USAHA COMMITTEE

October 9, 1999. Drs. Bruce Akey and Francois Elvinger, co-chairs

The committee held its second annual meeting as a joint committee of the USAHA and the AAVLD. Attendance fluctuated between approximately 80 and

130 people during the course of meeting with 17 committee members present. Dr. Francois Elvinger welcomed the attendees and gave a brief synopsis of last year's meeting.

Dr. James T. Case from the California Veterinary Diagnostic Laboratory System gave an update on the progress in developing standards for veterinary health information. He outlined the seven characteristics for an integrated health information framework developed for human health by the National Committee for Quality Assurance and their applicability to animal health surveillance. He then described the three information standards currently being worked on by the AVMA Subcommittee on Standards.

Ms. Karla Tomfohrde of MRL Pharmaceuticals presented an overview of an automated antibiotic resistance tracking database "The Surveillance Network" or TSN which collects information from 227 human hospitals every night. The database currently contains over 24 million antibiotic susceptibility test results representing 551 taxa of bacteria and 106 antibiotics.

Dr. Mary Torrence, USDA-CSREES, gave a presentation on the potential wealth of data available from veterinary diagnostic laboratories concerning antibiotic resistance development, food borne pathogens, zoonotic diseases, emerging diseases and bioterrorism threats. Barriers to access to this data include a lack of collaboration, trust and communication between laboratories and regulators, a lack of coordination and integration of data between labs, a lack of resources and the diversity of state and local regions.

Dr. John Hunt, chair of the Committee on Livestock Identification, addressed the membership on the benefits of improved livestock identification systems for animal health reporting. Robust livestock identification systems have been and will be essential for supporting programs on surveillance, control and eradication of specific diseases. Voluntary certification programs that qualify an animal as superior when it originates from a certified disease free operation depend on our ability to identify an animal and relate it to the herd of origin.

Dr. Alberto Laddomada representing the Commission of the European Union (EU) informed the committee on the EU approach to animal disease monitoring and surveillance. A computerized Animal Disease

Notification System (ADNS) was established in 1984 and a new update of the system will be on-line in 2000. Currently information is submitted electronically by member countries to the ADNS on primary and secondary outbreaks of any OIE List A disease and there also are provisions for updating these outbreak reports.

Dr. Bob Kahrs presented the featured Committee Scientific Paper entitled "The International Animal Health Community's Expectations of the U.S. National Animal Health Reporting System (NAHRS)".

Dr. Bruce Akey, Virginia Department of Agriculture and Consumer Services, presented an update on the past year development efforts for the NAHRS. Currently 29 states and Puerto Rico are participating in monthly reporting. Those 29 states represent approximately 55% of the dairy cattle, 57% of the beef cattle, 64% of feedlot cattle, 42% of the hogs, 68% of horses, 64% of the sheep and lambs, 56% of turkeys, 54% of broilers, 66% of commercial egg layers, 85% of the farmed catfish and 93% of the farmed trout in the U. S..

Dr. Richard Breitmeyer, California Department of Food and Agriculture, addressed the committee with a number of concerns about the development of the NAHRS.

Following all presentations, Drs. Laddomada, Kahrs, Breitmeyer and Akey, and Dr. Ammendrup, a second representative of the Commission of the European Union, were asked to participate in a panel discussion on the requirements and concerns for national animal health reporting.

AQUACULTURE JOINT AAVLD/USAHA COMMITTEE

October 9, 1999, Drs. S.W. Jack and Eric Park cochairs

Called to order 9:05am. Dr. Jack circulated an attendance sheet and participants introduced themselves.

Old Business:

AAVLD Accreditation: The accreditation committee received our 1998 proposal. Currently, they are still

addressing this issue but will probably follow OIE standards.

USDA Update: Dr. Otis Miller commented on the developing role of USDA-APHIS in aquaculture. He circulated two publications, Advisory and Assistance for Aquaculture Aquatic Animal Health and VS Aquaculture Strategic Plan. He asked for feedback from the committee on the latter draft document. He pointed out some "milestones" for APHIS and described their interaction with OIE.

New Business:

Regional Reports: Dr. Scott LaPatra summarized the problems and threat of Infectious Salmon Anemia (ISA) already in Canada, but not yet identified in USA. Dr. Jack described two emerging problems in southeastern catfish production (i.e. 'chylous effusions, intussusceptions and mortality syndrome' and trematode infestation.) Dr. Randy White presented issues from Great Lakes region. Most relate to "wild" stocks. An IPN-like virus was identified, producing a regulatory dilemma. A discussion of case definitions followed. Dr. Tom Baldwin presented his expanding efforts with whirling disease and concerns about Piscirickettsiae.

Meeting format: Dr. Jack will research the possibility to expand time for this meeting to include case and/or scientific presentations prior to committee business.

Other: There was a brief discussion of career opportunities for veterinarians in aquaculture and related industries.

Resolutions: Following extended discussion, two resolutions were approved for submission through USAHA channels.

Resolution 1: USAHA encourages USDA/APHIS to seek authority and funding to work with federal natural resource agencies to define risk assessment procedures for aquatic animal diseases of regulatory significance.

Resolution 2: USAHA encourages USDA/APHIS to seek authority and funding to prevent the introduction of foreign animal pathogens and develop programs to control or eradicate any so introduced agents, similar to established control programs for terrestrial species.

BACTERIOLOGY STEERING COMMITTEE

October 9, 1999, Drs. Mitzi Libal and Lorraine Hoffman, Co-Chairs

Dr. Hoffman welcomed five members and 13 guests to the meeting.

Subcommittee reports were given as follows:
Subcommittee on Bacteriology, Mycology, and
Mycoplasmology - Carol Maddox
Subcommittee on Anaerobic Infections - Mitzi Libal
(read minutes for Glenn Songer, who was absent)
Subcommittee on Antimicrobial Susceptibility Testing
- C.C. Wu and David White
Subcommittee on Mycobacteriology – no minutes
submitted (Charles Thoen was absent)

Dr. Hoffman presented information from the AAVLD Publications Committee that met earlier in the day regarding publication of information on the web site. Dr. Gary Osweiler is the new web site editor, Randy Berghefer is the coordinator. The address is www.aavld.org. It was indicated that new procedures to be shared could go directly onto the web site.

Dr. Leon Thacker, chair of the AAVLD Accreditation Committee, came to the meeting in order to address the issue of a Quality Control Document sent from the Bacteriology Steering Committee to the AAVLD Accreditation Committee a few years ago. He reported that AAVLD is to incorporate OIE requirements with our own QA standards. He also indicated that Ann Weigers, the new QA officer for NVSL, had visited with the Accreditation Committee earlier in the day. Dr. Weigers indicated that NVSL's goals on QA are to meet AALA standards. Dr. Thacker said they are considering the addition of a QA specialist or microbiologist on the Accreditation Team in the future.

MRL, a private company that coordinates antimicrobial surveillance data for bacterial pathogens, was discussed. Valerie Patton indicated that Dr. Lein of Cornell supports MRL. There was discussion on how AVMA/producer groups will react if AAVLD supports MRL. A motion was made by Dr. Fales and seconded by Sarah Salmon that the AAVLD Bacteriology Steering Committee will support the services offered by MRL and recommend that diagnostic laboratories become involved in this venue. The

motion passed with the following restrictions:

- 1) AAVLD will have appropriate representation on peer advisory review board responsible for determining who has access to data.
- 2) MRL will address concerns of sample bias.
- 3) National data (i.e. from all regions) will be available before information is released.
- 4) MRL will address concerns of AVMA/producer groups.

Beth Henricson reiterated that she is willing to compile a diagnostic procedures manual. She circulated a survey last year and 11 people responded in support of this effort.

ANAEROBIC INFECTIONS SUBCOMMITTEE

October 8, 1999, Dr. Glenn Songer, Chair.

Thirty-eight attendees were present.

Dr. Songer presented current information regarding *Clostridium perfringens* genotyping and then presented evidence for the role of *Clostridium difficile* as a pathogen of domestic animals.

Dr. Bob Carman from TechLab further discussed the pathogenesis of *C. difficile* along with isolation and toxin identification techniques.

Mr. Spencer Jang discussed the isolation techniques used at UC Davis for *C. difficile* in companion animals.

Dr. Songer briefly discussed plans for the subcommittee to explore development of a compendium of methods in veterinary anaerobic bacteriology to be published as a monograph and/or made available via the Internet (AAVLD web page).

ANTIMICROBIAL SUSCEPTIBILITY TEST-ING SUBCOMMITTEE

October 8, 1999, Drs. David G. White, Ching Ching Wu, Co-Chairs

There were 39 attendees at the meeting.

1. Update on NCCLS VAST meeting and status and revisions of M31-A:

M31-A and M37-A have been published and should be in use by Veterinary Diagnostic Laboratories. *Campylobacter* susceptibility testing methodologies are currently being developed. Interpretive criteria and quality control ranges were approved for florfenicol and difloxacin; quality control ranges for orbifloxacin were approved. QC ranges for *H. somnus* and *A. pleuropneumoniae* have been developed. Antimicrobial susceptibility criteria regarding aquatic bacterial pathogens are currently under development.

2. Full minimal inhibitory concentration (MIC) panel and feedback from users

MIC panels for food animal use are available but are not currently being used by any diagnostic laboratories. Eight labs will be using the panels in the future. The companion/equine panels are currently being used at various diagnostic laboratories. Discussion followed regarding the need for full antimicrobial MIC ranges. A new book titled "Target", written by David Aucoin and published by North American Compendiums, focuses on bacterial MICs and the associated antimicrobial pharmacokinetics. Several members agreed that this book is a good reference book.

3. Report on AVMA Judicious Antimicrobial Susceptibility proposal

The AVMA Judicious Use Committee is comprised of various members of producer groups, government, academia, and AVMA Staff. It makes recommendations to the AVMA Executive Board on issues related to judicious antimicrobial use. A judicious antimicrobial use guideline has been developed by the Committee and has been approved by the AVMA Executive Board. This document was published in the January 1999 issue of JAVMA and can be found in the library. AVMA members can also obtain a copy from the AVMA web site. A proposal to monitor antimicrobial susceptibilities among veterinary pathogens is currently being developed by Dr. Ching Ching Wu in collaboration with many veterinary diagnostic laboratory microbiologists. Many veterinary diagnostic laboratories have responded to a survey conducted by Dr. Wu indicating their commitment to participate in this survey. Contact Dr. Wu at ADDL, Purdue University, if interested. Ten isolates for each of the designated bacterial pathogens from one animal species per month will be requested. Participant labs will also need to spend some time in obtaining critical

information of the samples collected. The funding for this project is still pending.

4. Surveillance Network - Should or could Veterinary Diagnostic Laboratories use it?

Representatives from MRL, Herndon, VA, presented a talk entitled "The Surveillance Network Susceptibilities of Veterinary Bacterial Pathogens". It was well received regarding antimicrobial use in animals and possible human health implications. This data could be used to observe trends of antimicrobial susceptibility among veterinary and food borne bacterial pathogens and to possibly identify new mechanisms of resistance. Participants would be accredited AAVLD laboratories. MIC data would be the preferred method of information and susceptibility information will be interpreted using NCCLS and FDA recommendations. Available data fields would include case #, animal species, animal location, organism identification, source/tissue, test date, report date, and disease diagnosis. Other fields suggested at the meeting include age and production type. MRL is currently seeking funding and support internally and from the industry to pursue this endeavor. It was noted that 66% of the veterinary diagnostic labs are still using qualitative sensitivity testing. Concerns were raised that even though MRL might be able to introduce a system to veterinary labs in the near future, the labs may not have the right kind of data for the intended surveillance system.

5. Division Z in ASM

A new division associated with the American Society for Microbiology (ASM) has been created focusing on animal health microbiology. It is recognized as Division Z, Animal Health Microbiology. There will be two sessions at the next general ASM meeting under the Division Z banner concentrating on issues pertinent to animal health. A home page is currently under development.

6. Round Table issues

Dr. Nora Wineland from APHIS talked about creating a new surveillance network involving diagnostic laboratories close to FoodNet sites. A draft survey will be sent out to prospective participants to determine if this is plausible.

Future issues include: antimicrobial resistance scientific session or susceptibility related workshop (no wet lab) for the future meetings; issues and means related

to standardizing susceptibility testing among the diagnostic laboratories; and the value of MICs to clinicians and veterinarians.

BACTERIOLOGY, MYCOLOGY AND MYCOPLASMOLOGY SUBCOMMITTEE

October 8, 1999, Dr. Carol Maddox, Chair.

There were approximately 60 people in attendance.

Dr. Maddox gave a slide presentation that summarized the results of the 1999 bacteriology and susceptibility check test; a highly interactive discussion followed.

There were questions raised concerning the appropriateness of reporting "all" in vitro susceptibility results to veterinarians. A discussion ensued. Ching Ching Wu suggested that it would be appreciated if participants could be informed in advance of new formats and changes in the test. Dr. Maddox discussed preparation of materials. She expressed the need to be more aware of sample preparation for shipment and method of shipment. Dr. Keefe suggested different bacterial contaminants be used to reduce excessive overgrowth that was experienced in one sample this year. Concerns were expressed that the way organisms were shipped affected their results. Dr. Maddox requested anyone with constructive suggestions on ways to improve next year's test to send them to her at cwm5@psu.edu.

Dr. Maddox emphasized the check test is intended as a learning tool rather than for certification purposes. She asked for volunteers to provide organisms for next year's check test. Volunteers are as follows: Mitzi Libal, TX; Pat McDonough and Val Patton, NY; David Bemis, TN; Deepanka Tewari, PA and Beth Henricson, VA. Drs. Ching Ching Wu and Lorraine Hoffman will assist Carol Maddox in reviewing the check test before it is sent to participants. Dr. Maddox said she would be in touch with the submitters and graders for next year's test. It was agreed that the time for completion and grading of test was appropriate in 1999.

Dr. Maddox announced that the new ASM division "Z" for animal health has been approved. Tim Shryock is the new chair and Robert Walker is the chair-elect.

Saf-T-Pak has a new biological specimen shipping

container that has been approved for infectious agents and bacterial agar plates. Call or email Carol Maddox (cwm5@psu.edu) for details.

Dr. Maddox expressed apologies that Dr. Chietrita DebRoy, director of the Pennsylvania State University's *E. coli* Reference Center, was unable to attend and share information.

Dr. Maddox presented a slide show on recent O157:H7 E. coli outbreaks in New York and Illinois: "What do we do now?" was the question asked. What are reasonable expectations for support of our animal industries in testing for food borne pathogens? Discussion ensued as follows: how many labs can detect E. coli O157:H7? Beth Henricson of the Virginia Lab is gearing up to do surveillance of this organism with funding from USDA. Robert Walker commented that there are virulence factors similar to those in E. coli O157:H7 found in other E. coli pathogens of human and animals which need to be considered. Dr. Maddox commented that it would be short sighted to look only at O157:H7 as the pathogen of interest. Other Shiga-like toxin positive E. coli need to be addressed also. It was noted that when evaluating food samples for E. coli sample size is very important.

Dr. Tom Bunn from NVSL presented an update on shipping regulations for biohazardous materials: Shipping regulations can be obtained from Internet: http://dms.dot.gov/search docket #3971. DOT regulations: Defining infectious substance and diagnostic specimens – rely on CDC regulations. New regulations proposed from those of last year: diagnostic specimens no longer exempt from the requirements however. Risk groups have been identified. Group 1 – unlikely to cause disease in humans or animals – exempt from shipping requirements. Group 2 – do cause disease but unlikely to be serious hazard. Group 3 – a pathogen that causes serious human or animal disease. Exceptions: Group 2, 3, or 4 must be classified as division 6.2 and requires special shipment packaging. Risk group 1 specimensnot necessary for shipping containers to meet the strict criteria. Diagnostic specimens remain exempt as new proposals are pending. William Fales warned that UPS will impose a \$10K fine for shipping of unlabeled hazardous items. Internet site http:// www.gpo.gov can provide more information on regulations but you need to know the regulation

number as you can't search by word. 9CFR: Title 42, part 72, section 3 is the list of CDC regulations and agents for which DOT requires labels.

AAVLD sponsored a mycology workshop on Thursday, October 7. The workshop manual will be available for \$25. The workshop was very informative. Carol Maddox acknowledged Joyce Stringfellow and Dr. Michael Dykstra for their involvement in the workshop.

A new chair for this subcommittee will be needed after next year's meeting. Members should be thinking of viable candidates for the position.

MYCOBACTERIOLOGY SUBCOMMITTEE

October 9, 1999, Dr. Charles Thoen, Chair

Dr. Mitch Palmer presented a paper entitled: "Experimental Transmission of *Mycobacterium bovis* in Deer." The findings revealed that *M. bovis* was transmitted to uninfected penmates within 42 days of co-mingling. Transmission occurs by aerosolization of saliva and nasal secretions and contamination of feed.

A survey of Iowa veterinarians and producers conducted by Drs. S. Robbe and J. Thomson revealed 81% of veterinarians and 78% of producers considered the Johne's vaccine to be effective. Ninety percent of the veterinarians and 74% of the producers support a federally mandated control program.

Dr. Thoen presented a report on the production and bioassay of a *Mycobacterium avium* ss. *paratuberculosis* purified protein derivative for use as a skin test antigen for early diagnosis of Johne's disease.

BLUETONGUE DIAGNOSTICS COMMITTEE

October 9, 1999, Dr. Jim MacLachlan, chair.

Ten committee members and 26 guests were present.

Dr. MacLachlan introduced the session and then updated the Committee on the Code revision that recently were undertaken at the Office International des Epizooties (OIE). Dr. MacLachlan chaired an ad-hoc committee convened by OIE in September 1998 to review the existing Code. That committee

had extensively revised the existing Code, and its recommendations subsequently were accepted by the Code Commission and, in May of 1999, by the 152 voting member countries of OIE. Acceptance, however, was contingent upon further definition of 5 points that were deemed to be still "under study" thus OIE re-convened the ad-hoc committee in September 1999 to respond to these 5 concerns. The committee met and came to resolution on 4 of these points, which included issues such as the acceptance of PCR, the maximal duration of infectious viremia in Bluetongue virus infected cattle, and the design of surveillance monitoring programs. These recommendations have been forwarded to the Code Commission for acceptance. The revised Code now is accessible through the OIE web site, or through Import/Export, USDA-APHIS, in Riverdale, MD.

Dr. Wilson, Arthropod-borne Animal Diseases Research Laboratory, USDA, ARS, presented an overview of Orbivirus diagnostics. He discussed the steps involved and how they affect the specificity and sensitivity of the assay. The sensitivity of the assay varies depending on the protocol. There are a number of reported PCR assays available. Advantages and disadvantages of the available PCR tests in the literature were discussed. Denaturation of the RNA template with methyl mercury hydroxide (MeHgOH) prior to reverse transcription afforded the greatest sensitivity. Denaturation of the RNA template with heat and formamide in a nested-PCR is sufficient to detect viremic animals but is ten-fold less sensitive than denaturation with MeHgOH. The nested-PCR based on segment 6 is the most common and sensitive assay. Assays based on segment 3 and 10 are also used successfully. The tests have been used to detect BTV RNA from a variety of sources including blood, lung, spleen, semen, and insects. These tests are rapid, sensitive and specific. If the tests are run carefully, following standard guidelines, false positives can be avoided. Virus isolation negative but PCR positive blood samples have been reported. This suggests that residual RNA is present after the virus has been cleared. This finding makes an animal negative by two PCR tests, as recommended by OIE, very safe for exportation.

Dr. Brad Mullens reviewed interactions between Culicoides vectors and BTV, with particular emphasis on environmental effects on vector capacity. He outlined steps involved in implicating potential vectors in transmission. Of the over 1,000 species of

Culicoides worldwide just 10 or less have been proven to be capable of transmitting virus. Vector competence is governed by genetic mechanisms thought to function primarily at the level of the midgut barrier but it is subject to modification by environmental conditions. Thus it may be difficult to unequivocally define a particular insect species as competent or incompetent. It also was stressed that vector competence (ability of a vector to support virus infection, replication, dissemination) is only one component of vector capacity, which conceptually integrates the vector population attributes necessary to facilitate or prevent transmission in the field. Recent studies in the field were reviewed. Field infection rate data showed evidence of BTV in insects over a broader seasonal period than that predicted from seroconversion of sentinel calves. The data are consistent with a year-round, low-level transmission pattern facilitated by the superior survival of *C. sonorensis* in winter.

Dr. Eileen Ostlund from NVSL briefly presented results of the latest BTV national serologic survey (included in the USAHA Bluetongue and Bovine Retrovirus Committee report) and virus isolation data.

Dr. James MacLachlan of the University of California introduced a discussion on the future of the committee and, specifically, reduplication of its activities with those of the USAHA Bluetongue and Bovine Retrovirus Committee. A motion was made by Dr. James Evermann and seconded by Dr. Edward Dubovi that the AAVLD Committee on Bluetongue Diagnostics be disbanded and its activities be undertaken within the USAHA Committee on Bluetongue and Bovine Retroviruses. There was little discussion on the motion and it was passed unanimously with a recommendation that Dr. MacLachlan express this conclusion to Dr. Akey.

CONSTITUTION AND BYLAWS COMMITTEE

October 9, 1999, Dr. Andrews, chair Three members and three guests were present.

The following changes to the bylaws were discussed: **ARTICLE VIII**

Committees Section 6. Nominating Committee. Paragraph 2. The committee shall consist of the Immediate Past President, who will serve as Chairman, and three active members selected from three regions of the Association. During even-numbered years, the three members of the committee shall be selected from even-numbered regions Regions 2, 4 and 4 and during the odd-numbered years from Region 1, 3, and 5 odd-numbered regions. Only one of the members chosen may be a regional representative to the Executive Board.

ARTICLE IX

Membership and Dues Section 9. Dues.

Subsection A. Dues are payable on the first day of each fiscal year. The date of payment of annual dues shall be established by a 3/4 vote of the House of Delegates. Members who are three (3) months in arrears in payment of annual dues shall be dropped from the rolls of the Association.

The changes were approved by the committee and will be presented to the House of Delegates. One additional member to the committee will be suggested to the AAVLD President.

ENTERIC DISEASES COMMITTEE

October 9, 1999. Dr. Gerald E. Duhamel, chair

Prior to the meeting, the Chair contacted each committee member and a current list of members that expressed an interest in continuing to serve on this committee was prepared. The current membership list was circulated along with a sign up sheet for any new members with an interest in serving on this committee. Existing members updated their current addresses including e-mail addresses and 17 new names were added to the existing list for a total of 49 members.

Dr. Janet B. Payeur from the National Veterinary Services Laboratories in Ames, IA presented a critical review of current and proposed laboratory tests for Johne's disease diagnosis. The advantages and disadvantages of bacteriological culture methods, the current gold standard, was compared with CF, AGID, ELISA, intravenous Johnin test, intradermal Johnin test, gamma interferon test, nucleic acid detection using PCR, and post-mortem examination. She concluded that antibody-based tests were most useful for detection of animals with advanced clinical disease, but have low sensitivity for detection of animals with subclinical disease. Conversely, bacteriological culture, Johnin skin tests and gamma interferon have greater sensitivity for detection of subclinical disease in animals less than 2-year-old.

Dr. Carol W. Maddox from the Animal Diagnostic Laboratory, Pennsylvania State University, University Park presented an update on current findings and future studies to elucidate the role of *Clostridium perfringens* type A in severe acute hemorrhagic and necrotizing enteritis of adult cattle. A follow up discussion suggested that the problem is widespread in dairy cattle throughout the United States and consistently occurs as either sudden death or diarrhea in cows at any time post-partum. Bulls also have been affected. The results of preliminary studies to determine the role of *C. perfringens* type A with beta-2 toxin were presented (see abstract in 1999 Abstract book page 51).

Spencer Jang of the Bacteriology Section and Dr. K. Gary Magnesian of the Large Animal Clinic both at the Veterinary Medical Teaching Hospital of the University of California-Davis presented an update on laboratory and clinical findings in horses with Clostridium difficile. Toxigenic C. difficile has emerged as an important cause of colitis and diarrhea of adult horses and foals. Routine laboratory identification from intestinal specimens is done by culture using CCFA media and detection of toxin A and a common antigen (glutamate dehydrogenase) by using a commercial EIA. A high prevalence (~40%) of resistance to metronidazole was found among strains isolated from horses but all were sensitive to vancomycin. Neonates can develop diarrhea with C. difficile acting as a primary pathogen without requiring systemic antibiotics as a risk factor as for adults. On the other hand, many neonates that are hospitalized on systemic antibiotics do become colonized with toxigenic strains yet do not develop diarrhea. In one study, among culture positive feces, only 50% were positive for toxin A by EIA while PCR for toxin A and B detected 92%.

Dr. Gerald E. Duhamel of the Department of Veterinary & Biomedical Sciences at the University of Nebraska-Lincoln presented an update on identification of pathogenic *Brachyspira* (formerly *Serpulina*)

species on the basis of intensity and pattern of hemolysis, production of indole, hydrolysis of hippurate, and 16S- and 23S-ribosomal RNA-based PCR. Phenotypic methods correlated well with genotypic identification of spirochetes using *B. hyodysenteriae* 23S-rRNA-specific PCR assay and *B. pilosicoli* 16S- and 23S-rRNA-specific PCR assays.

Dr. Melisse M. Gray of the Veterinary Diagnostic Center at the University of Nebraska-Lincoln presented an overview of current laboratory detection methods and findings using a newly developed ELISA (Syracuse Bioanalytical, Inc., Ithaca, NY) for detection of bovine coronavirus antigen in feces. Data generated at the Diagnostic Laboratories at the University of Nebraska, The Ohio State University and South Dakota State University were presented. She concluded that the soon to be available commercial antigen-capture ELISA provided results comparable to immunoelectron microscopy.

The format of next year's committee meeting was discussed briefly. Invited case and/or scientific presentations on diagnosis of enteric diseases of animals caused by *Helicobacter* species would be of interest. Agenda items dealing with current issues will be solicited from committee members before developing the final agenda.

EPIDEMIOLOGY AND ECONOMICS COM-MITTEE

October 10, 1999, Dr. Jack Schmitz, acting chair.

The Committee met in conjunction with the NCR-168 USDA Epidemiology and Economics of Livestock Diseases research group. Following the introduction of members and guests, Dr. Jack Schmitz laid out the goals of the NCR-168 group to the AAVLD committee members.

Dr. Schmitz explained that the AAVLD committee co-chairs, Drs. Thomson and Turnquist were not available to chair the committee because of other commitments and requested nominations for new chairs of the committee. Drs. Elvinger and Thurmond were nominated to the AAVLD president as co-chairs.

Following these housekeeping items, Dr. Mary Torrence, USDA-CSREES, gave a presentation on Investigative Opportunities in Food Safety. She listed a number of funding sources available from USDA, FDA and CDC. Following a discussion on how to use these potential funds, the NRC-168 group voted to conduct its business meetings in conjunction with the Conference of Research Workers on Animal Disease held yearly in Chicago, IL.

October 12, 1999, Drs. François Elvinger and Mark Thurmond, co-chair nominees

Following the scheduled meeting, the nominated chairs conducted an informal meeting on October 12th from 8-10 a.m., to redefine the mission, position and future activities of the committee. Four members plus one guest were in attendance (Drs. Case, Elvinger, Hietala, Muñoz-Zanzi and Thurmond). The first item was the renaming of the committee to **Epidemiology Committee** of the AAVLD. The mission of the committee was reformulated as follows:

<u>Mission:</u> The mission of the AAVLD Epidemiology Committee is to communicate epidemiologic concepts, techniques and methodologies to improve efficacy and efficiency of veterinary diagnostics and utilization of veterinary diagnostic laboratory information.

In order to inform all AAVLD members of the future activities of the committee and recruit those interested in committing and contributing to these activities, the chairs will contact by mail all AAVLD members listed in the directory with interest in epidemiology.

The goals for the next year will be:

1. Submit a proposed oral presentation with epidemiologic methodological content for the plenary session and for each of the 5 scientific sessions, and request from the Program Committee chair the inclusion as such into the program. Dr. Hietala will prepare the Plenary Session presentation on the Sentinel vs. Surveillance functions of Veterinary Diagnostic Laboratories (30 minutes). Dr. Elvinger will present a similar talk to the International Symposium on Veterinary Epidemiology and Economics in Breckenridge, CO, in August 2000. Presentations are intended to increase awareness of epidemiologic tools among diagnostic professionals, and highlight the role of veterinary diagnostic laboratories in an environment characterized by changes in animal production systems and national and international trade issues.

- 2. Evaluate epidemiologic tools for interpretation of diagnostic results.
- 3. Plan the preparation of a document (monograph or other) on the value of veterinary diagnostic laboratory databases for monitoring and surveillance.

The last 2 items will be program items for next year's committee meeting. The attendees felt that these goals could be realized within the next year.

FOUNDATION COMMITTEE

October 8, 1999, co-chairs Gavin Meerdink and Leon Thacker

Most of the committee members were absent from the annual meeting, thus discussion suggested direction but allowed no majority decision. Mailed correspondence will follow to complete some business prior to the next general meeting.

The financial status of the Foundation includes checking balance of \$18,405.76 and an investment balance of \$43,174.04 for a total of \$61,579.80.

A system for recording cumulative donations of contributors has been established; any errors should be reported. If approved by the entire committee, the categories of contribution will be changed and published in the next report. Though a brochure is part of the Foundation message, an annual letter to members to accompany the mailed ballot was suggested. A system of pledging for member donations is being proposed; accounting mechanisms must be explored. Examples of other donation request instruments (corporate, special fund, etc.) were reviewed and are under development.

Pending final approval by the committee, the FUNDS REQUEST FORM will be adopted to formalize the request and committee approval for Foundation funds.

Results of the entire committee decision on the above discussion points will be published in the Newsletter.

INFORMATICS COMMITTEE

October 8, 1999, James R. Kruse, chair

There were nine members and 26 guests in attendance. The minutes of the previous year were

approved as written. A motion was made and passed by acclamation thanking Dr. James Cases (past Committee Chair) for his outstanding efforts as Committee Chair for the past five years.

There being no old or new business, the committee moved on to presentations by Dr. James Case on standardization of vocabulary and messaging for laboratory data reporting, and by Dr. Craig Carter on the development of Visualab, a lab information system.

Dr. Case brought the group up-to-date on developments regarding LOINC (Logical Observation Identifiers, Names and Codes), SNOMED and Health Level 7. The need for data standardization and data compatibility is a must to allow the successful implementation of the National Animal Health Reporting System. To this end, the labs must address standard data element definitions, automation of reporting procedures for assessing data quality, security, sharing and confidentiality. The three subjects covered by Dr. Case will help to meet these goals.

Dr. Craig Carter of Texas A&M discussed the recently implemented VisuaLab (a LIMS) System at A&M. He gave an overview of the reasons for its need, how the lab proceeded to set up the project and the current state of the new system. Dr. Carter stressed the need for using open tools and open standards for a project of this nature to allow the product to grow and evolve with the needs of the lab. As the VisuaLab System matures, Dr. Carter plans to develop Data Mining of data, include attached image files to the client records and auto e-mail of results.

Both Dr. Case and Dr. Carter volunteered to remain after the meeting adjourned to cover questions of those present.

LABORATORY DIRECTORS COMMITTEE

October 9, 1999, Drs. Leon Thacker and Alex Ardans, co-chairs

There were 49 members and guests in attendance.

Llamas and alpacas

Dr. Robert Frost Lincoln California reviewed the needs of the Llama and Alpaca industry and presented a summary compiled by Dr. Murray Fowler and himself on conditions that had been recognized in those two species.

OIE infectious disease document and laboratory accreditation

Alfonso Torres, Deputy Director Veterinary Service APHIS, reviewed the OIE document on infectious disease that is currently out for comments. The guide that is being proposed will establish minimum standards for animal disease certification required for international trade. He stated that NVSL is preparing to become ISO certified along 17025 standards. A question was posed if NVSL is the only lab recognized internationally to do export testing from the United States could NVSL handle the workload? Dr. Torres responded that this is in the development stages and he did not think that it was the intent of NVSL to be doing the entire country's export testing. An accrediting body, AALA, has been engaged to certify NVSL and it will be certifying test by test. Dr. Grant Maxie commented on the laboratory structure in Canada that in the past had certified provincial labs to ISO standards and that the Canadian Food Inspection Agency (CFIA) had to be registered by the Standards Council of Canada along 9002 standards. Dr. Torres commented that confusion exists in OIE and that there are many ad hoc committees dealing with the new programs. He invited members present to review the document and direct comments to him. Dr. Torres also mentioned that he would welcome interactions with the AAVLD accreditation committee in working together to develop a national strategy for animal health laboratories in the United States.

Equine Influenza surveillance and vaccines

Dr. Jenny Mumford Animal Health Trust Newmarket, England presented a request to the group for increased surveillance for equine influenza. Her key objective was to increase the surveillance and virus isolation by diagnostic laboratories. She reviewed the status of a group that has met on 4 occasions initially to informally consider equine strains for vaccines. The group met recently in Florida as a work group of OIE/WHO to review equine influenza worldwide and to promote safe and effective equine flu vaccines that contain epidemiologically relevant strains. She stressed the need for more isolations in order to provide feedback to vaccine manufacturers and mentioned there is a possibility that the OIE reference laboratories could provide reagents to diagnostic labs to do initial strain typing. Dr. Mumford also reported

that Dr. Tom Chambers, Gluck Center, University of Kentucky was the OIE reference laboratory for the US and would provide strain typing. The St. Jude's Children's Hospital is a World Health Organization site for influenza typing. Several directors commented that it was a challenge to do equine surveillance as many owners/trainers were unwilling to pay for the service. Dr. Mumford will be meeting with equine veterinarian groups to encourage them to submit samples for virus isolation from acute suspect cases.

NAHRS

Dr. Nora Wineland, Centers for Epidemiology and Animal Health in Fort Collins, presented an update of the national animal health reporting system (NAHRS). She stressed that the current reporting does not identify individual states, however, states participating are listed. The report lists occurrence of List A and list B OIE diseases. A primary interest is in diseases foreign to the United States. She commented that a proposal for the reporting structure is out for discussion and comment with a final decision to be made in August 2000. There were comments encouraging additional criteria for definitive agent identification and questions on the need for isolation of organisms. Other comments included the suggestion that it might be time for the country to admit that certain diseases are endemic and to proceed.

Bioterrorism

Dr. Mike Slayter, Florida, reviewed efforts in Florida to deal with bioterrorism. A terrorism summit was held earlier this year in which 300 people attended. He said that with all the agencies represented, everyone spoke in different languages but yet everyone wanted to be included as they had considerable training and resources to offer. Dr. Slayter was the only veterinarian attending the summit and now is on a small committee of 25 to develop an initial plan for the state of Florida. The initial effort will be centered on those programs already in place and to define what is understood about each other.

Dr. Bert Mitchell, Center for Veterinarian Medicine, FDA, commented that diagnostic laboratories were considered to be the eyes and ears in our nation to protect the food supply. He stressed that he felt very confident about the security of chemical plants, however, the same security does not exist in feed mills. He suggested that a special communication system among laboratory directors was needed in which information could be obtained and distributed

rapidly and that such a system may have to be encrypted for links to the FBI. He mentioned that in 2001 it is projected there will be funds for modeling.

Dr. David Huxsoll of Louisiana reviewed a project that is funded through the US Department of Justice (DOJ). The funding for the first year covers assessment of technology and procedures most amenable to rapid identification of potential agents and development of the network at Louisiana State University. Funding for expansion of the network to other laboratories is contingent upon continued support of DOJ. Initially they are going to be targeting diagnostic labs associated with schools of veterinary medicine because of their expanded base of knowledge that could be tapped. He also mentioned development of a communication system that he suggested would have to be electronically tiered with the appropriate firewalls developed and would be linked to the FBI.

Misinformation on raccoon rabies:

Dr. John Andrews of Illinois briefly commented on how information was widely distributed concerning an erroneous rabies diagnosis in Missouri wildlife.

Other:

Several additional items that had been suggested for the agenda will either be carried over until next years' meeting or put on the director's list for input this coming year.

LONG RANGE PLANNING COMMITTEE

October 8, 1999, Dr. Willie Reed, chair

There were five committee members and seven guests in attendance. The committee discussed the following agenda items:

Do we need to expand the scientific program (provide a home for epidemiology, companion animal and exotic animal testing, endocrinology, and clinical pathology)? The committee feels that the annual scientific program is a very important undertaking by the organization and is one of the two most important benefits to the membership. Therefore, the Long Range Planning Committee recommends that the Executive Committee establish ongoing ways to gather input from members on how the program can be continuously improved to meet membership needs. This may be accomplished through the development of an evaluation instrument,

distributed at the end of each scientific session or included with the annual dues notice. The AAVLD Listserv and newsletter may also be used to solicit input. The committee felt that including papers in areas such as epidemiology, endocrinology, clinical pathology, companion animal and exotic animal testing, as well as other areas could enhance the scientific program. The committee recommends to the Executive Committee that the program chairperson be charged with seeking papers in these areas. The committee also felt that including symposia on topics of interest to a broad component of the membership with invited speakers could enhance the scientific program. A source of funding for symposia may be through the AAVLD Foundation.

Funding of the AAVLD Foundation. The Long Range Planning Committee continues to believe that additional efforts should be devoted to seeking donations from estates/trusts that otherwise would be given to the government in taxes. An ongoing, coordinated approach to soliciting funds is necessary if the Foundation is to become a viable entity. It is necessary that a formal process be developed for obtaining advertisers, patrons, and exhibitors to support the journal and annual scientific meeting. To accomplish these objectives, the Long Range Planning Committee once again strongly recommends that the Executive Committee appoint an ad hoc committee that is diverse in composition in terms of length of service to AAVLD, for the purpose of developing a strategic approach for gaining contributions to the AAVLD Foundation and sponsorship of the organization's journal and annual scientific meeting. Past AAVLD Presidents could play an important role in soliciting funds for the Foundation. Part of the strategy should include developing a prospectus that defines the market AAVLD represents.

Increasing regional meeting support. The Long Range Planning Committee believes that a top priority for AAVLD in the future should be to attract technical staff to regional meetings and the annual national meeting. More needs to be done to enhance continuing education for bench-level technicians. One approach may be to contact the Association of Veterinary Microbiologists (AVM) to determine the feasibility of joint AAVLD/AVM sponsorship of regional meetings. The committee recommends that the Executive Committee evaluate the feasibility of providing some AAVLD financial support to

regional meetings, perhaps by providing funding for an invited speaker for each of the existing three AAVLD regional meetings, or by co-sponsoring regional AVM meetings. One possible source of funding is the AAVLD Foundation. This will enhance the visibility of AAVLD and could result in acquisition of new members.

Is there a need for the AAVLD to develop a strategic plan? The Long Range Planning Committee feels that there is great urgency for establishing the future strategic direction for the AAVLD, given the changes that are taking place internationally related to animal agriculture and trade, changes that are taking place in the USAHA, and increased membership expectations. Therefore, the Long Range Planning Committee strongly recommends that the Executive Committee appoint a strategic planning committee and provide resources to hire a facilitator to develop a strategic plan that maps the strategic direction for the AAVLD as we begin the new millennium. The committee further recommends that the Executive Committee seek support and funding for the development of the strategic plan from USDA/APHIS to accomplish this goal.

MEMBERSHIP COMMITTEE

October 9, 1999, Drs. Jim Evermann and David Zeman, co-chairs

Five committee members and two guests were present.

Current AAVLD membership is at 1,105, which is an increase of 71 over the end of last year. The committee discussed past, current and proposed membership promotional activities:

- Dr. Bickford sent a letter to North American avian diagnosticians in September 1999. So far, 6 have responded by joining AAVLD.
- Drs. Zeman and O'Toole have drafted a letter that will go to British Isle diagnosticians in the fall. The lab directors will receive a complimentary CD-ROM of the first 10 years of JVDI.
- The committee suggested we send a letter inviting fish health professionals to join. A list will be generated and then a letter sent.
- Ways to encourage more bench and technical staff to join the organization

were discussed. One mechanism might be to foster a positive relationship with the Association of Veterinary Microbiologists. One way to do this would be to provide some continuing education financial support for their meetings.

MYCOTOXIN COMMITTEE

October 9, 1999. Dr. George Rottinghaus, chair.

Twelve members and twelve guests were in attendance.

Individual states had little information on mycotoxin problems in the 1999 harvests. The widespread use of the ELISA kits by grain elevators and grain processing companies has eliminated harvest monitoring for mycotoxins from the diagnostic laboratories. In general, the only samples sent to the diagnostic laboratories are excessively moldy, animal health-related, or research samples.

Dr. Randall Lovell, FDA/Center of Veterinary Medicine/Division of Animal Feeds, presented a summary of the chronic toxicity and carcinogenicity study with purified fumonisin B₁ in mice and rats conducted at the National Center for Toxicological Research (NCTR) in Jefferson, Arkansas. The project study director was Dr. Paul Howard. Fumonisin B, was fed to male and female Fisher 344/ N Nctr BR rats and B6C3F₁/Nctr BR mice at levels of 0, 5, 15, 50, and 100 mg/kg diet (female rats); 0, 5, 15, 50, and 150 mg/kg diet (male rats); 0, 5, 15, 80, and 150 mg/kg diet (female mice); and 0, 5, 15, 50, 80 mg/kg diet (male mice) for two years. There was clear evidence of carcinogenic activity of fumonisin B, in male F344/N based on the increased incidence of renal tubule neoplasm at dietary levels of 50 ppm and above. There was clear evidence of carcinogenic activity of fumonisin B₁ in female B6C3F₁ mice based on the increased incidence of hepatocellular neoplasm at dietary levels of 50 ppm and above.

Dr. Lovell presented a draft scientific support document that was prepared by three scientists at FDA's Center for Veterinary Medicine (CVM). This draft document, which has not been approved by CVM management, provided the current opinion of the three FDA scientists regarding interim advisory levels for fumonisins in animal feeds. Dr. Lovell asked the AAVLD Mycotoxin Committee for input on these

draft recommendations. He also indicated that a fumonisin guidance document will likely be published in the Federal Register (FR) in the next several months and asked for input on any recommendations made in this FR document after it is published.

Finally, Dr. Lovell invited everyone to participate in the Fumonisins Risk Assessment Workshop scheduled for January 10-12, 2000. This workshop is sponsored by FDA/CFSAN, JIFSAN, WHO and USDA and will be held at the University of Maryland Conference Center in College Park. Contact Wendy Buckler for additional information about this workshop (202-205-4153; e-mail address: wbuckler@bangate.fda.gov).

The AAVLD Mycotoxin Committee had previously recommended (AAVLD Newsletter May 1993, pg 25-26) the following levels for fumonisin B₁ in various portions of the rations: Horses <5 ppm; swine <10 ppm; beef cattle <50 ppm; and poultry <50 ppm. The opinion of the three FDA scientists regarding fumonisins in feed were as follows:

Equine: recommend that if corn and corn byproducts are used in equine rations, that the corn and corn byproducts contain less than 5 ppm of $FB_1 + FB_2 + FB_3$ and comprise no more than 20% of the dry weight of the total ration. Do not recommend corn screenings be used in rations.

Rabbits: recommend that if corn and corn byproducts are used in rabbit rations, that the corn and corn byproducts contain less than 5 ppm of FB₁ + FB₂ + FB₃ and comprise no more than 20% of the dry weight of the total ration. Do not recommend corn screenings be used in rations.

Catfish: recommend that corn and corn by-products used in catfish rations contain less than 20 ppm of $FB_1 + FB_2 + FB_3$ and that the corn and corn by-products comprise no more than 50% of the dry weight of the ration.

Swine: recommend that corn and corn by-products used in swine rations contain less than 20 ppm of $FB_1 + FB_2 + FB_3$ and that the corn and corn by-products comprise no more than 50% of the dry weight of the total ration.

Ruminants: recommend that corn and corn by-products used in rations of ruminants that are \geq

3 months old and fed for slaughter contain less than 60 ppm of $FB_1 + FB_2 + FB_3$ and that the corn and corn by-products comprise no more than 50% of the dry weight of the total ration.

Mink: recommend that corn and corn by-products used in rations of mink fed for pelt production contain less than 60 ppm of $FB_1 + FB_2 + FB_3$ and that the corn and corn by-products comprise no more than 50% of the dry weight of the total ration.

Poultry: recommend that corn and corn by-products used in rations of poultry (turkey poults, broilers, and ducklings) fed for slaughter contain less than 100 ppm of $FB_1 + FB_2 + FB_3$ and that the corn and corn by-products comprise no more than 50% of the dry weight of the total ration.

Mink, ruminant, and poultry breeding stock: recommend that corn and corn by-products used in rations of mink, ruminant and poultry breeding stock contain less than 30 ppm of $FB_1 + FB_2 + FB_3$ and that the corn and corn by-products comprise no more than 50% of the dry weight of the total ration.

Animal species not mentioned: recommend that corn and corn by-products used in rations of all animal species or classes not mentioned above contain less than 10 ppm of $FB_1 + FB_2 + FB_3$ and that the corn and corn by-products comprise no more than 50% of the dry weight of the total ration.

From published reports it was felt that fumonisin residues in meat, milk, and eggs would not likely be a public health concern.

NEWSLETTER REPORT

- 1. The total costs for the three 1998 issues, containing 106 pages, was \$9,079.82. The August issue which was the first issue available only on the web site to the majority of members cost 1257.66 for personnel, printing 275 copies and mailing 256 copies of the 42 page newsletter. This was a 3,182.00 savings over the 40 page January issue which had 1200 copies printed and 1100 mailed.
- 2. All members who had not previously requested a hard copy and who had E mail addresses were notified by Email in April that all future issues would only be available on the web site unless they requested a hard copy. Members without Email were

sent letters asking them if they wanted a hard copy or not. If they did not respond to the letter, they were continued on the hard copy list.

PATHOLOGY COMMITTEE

October 10, 1999, Dr. Dave Steffan, chair

- 1. Dr. Leon Thacker presented an update on the accreditation process and changes that may occur as a result of OIE policies for export testing.
- 2. Dr. Gayman Helman presented a summary of the histopathology slide conference. The conference was held from 6:30 to 9pm Saturday evening. The 1999 conference co-chair and chair for 2000 is Dr. Pam Parnell of Clemson Veterinary Diagnostic Center.
 - A. 150 programs were prepared for the conference and approximately 100 people were in attendance. The program included 21 case reports presented by 15 people and stayed on schedule. The speakers were requested to submit a block of tissue with their abstracts and slides were prepared from the block. Some cases did not have sufficient tissue to prepare slide sets and were still included.
 - B. Slide sets were sent to all AAVLD accredited laboratories and to case presenters from non-accredited laboratories a total of 41 sets were mailed.
 - C. Expenses for the slide conference were:

Materials (boxes, slides, mailing containers, etc.) 261.50 Labor (slide production) 378.00

Postage <u>65.00</u> TOTAL 704.50

Program production/distribution/ Printing 288.23 Shipping (including slides) 90.00

TOTAL 378.23

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Total of all expenses: 1082.73

D. The cost of this years' program were shared by Clemson University and Oklahoma State University. Mechanisms for recouping the costs were discussed. It was felt that the labor cost of producing slides could perhaps be donated by the laboratories as these are cut as a low priority items during otherwise slow times. The total out-of-pocket expenses are estimated at \$704.73.

The pathology committee requests the executive board and program committee consider these charges as part of the convention expenses and reimburse the laboratory preparing these materials for future meetings. This would allow slide boxes to be sent to all accredited labs and presenters without the need for the conference chair or co-chair to contact accredited labs to collect fees from them individually for participation in the conference. The issue was not resolved and awaits comment from the executive committee. For year 2000, procedures will be developed at the discretion of the conference chair.

- E. The new conference co-chair Dr. Donal O'Toole from the Wyoming Veterinary Diagnostic Lab was appointed. He will be the co-chair in 2000 and chair for 2001.
- 3. Dr. Steffen completed his 3-year term this year and nominations were sought for a new chairperson. Paige Carmicheal of the University of Georgia was nominated as committee chair and she is agreeable to serving a three-year term if appointed by the AAVLD president.
- 4. Communication problems regarding referrals between labs was discussed and members were made aware of the executive board minutes where this was discussed last summer and that the AAVLD has no authority over individual laboratories and their communication policies. Several labs have had similar experiences.

PUBLICATIONS COMMITTEE

October 9, 1999, chair Dr. Gavin Meerdink

There were 12 members and guests in attendance.

Manuscripts — Fred Hoerr, Editor

The AAVLD web site provides a new venue for committee reviews or other informational items of value to the membership. In the past these efforts were constrained by the cost of publication and/or the rapidity of change which rendered the document obsolete. The web site allows access to members at minimal cost and the manuscripts can be amended at any time. Committees are encouraged to congeal pertinent information of interest to the members and submit this to the Manuscripts Editor.

As requested by Dr. Lauerman, the committee will publish the proceedings of his symposium on molecular techniques on the AAVLD web site.

Newsletter — Pat Blanchard, Editor (pblancha@cvdls.ucdavis.edu)

As predicted, the incorporation of the Newsletter onto the web site has saved Association money. Expenditures decreased from approximately \$4,400 to \$1250 for August issue alone. Savings will increase as more members switch to using the web site to obtain their newsletter. Of the 1100 members, ~950 were notified when the Newsletter was on the web site via email; 256 received hard copies. The Newsletter will be on the secured portion of our web site. Excerpts from the Newsletter including Position Announcements, the Foundation Donor chart, and meeting announcements will be public.

Discussions were held regarding the difference between when a new product or service listing is an "advertisement" (for a fee) versus an "announcement" of something unique and of benefit to the members. Whether or not the submitter is an AAVLD member may be a factor. Given the variety of possibilities, the consensus was that this is up to the discretion of the Newsletter Editor to render a decision or to submit the question to the committee for their collective response.

Position announcements submitted for publication will be published in their entirety on the AAVLD web site (public side), however these may be edited at the discretion of the Newsletter Editor for the hard copy. The committee suggested that these entries be deleted from the web after the posted closing date for the position.

<u>Journal of Veterinary Diagnostic Investigation— John Kreeger, Editor</u>

Dr. Kreeger was unable to attend the meeting and discussions including the issue of a relation with the CAB International were tabled for a later time.

Web site— Gary Osweiler, Editor (osweiler@iastate.edu)

The committee welcomed our new Editor, Dr. Gary Osweiler, who replaces Dr. John Thomson. The web site will remain at Iowa State University under the webmaster management of Randy Berghefer.

The committee reached the following decisions:

- The membership list details (address, phone and e-mail address) will not be listed on the web site. Rather, each accredited laboratory can insert their own web site link and release information as they see fit from their link.
- —The submitter must police each entry. The Editor and webmaster will not be responsible for details such as address, phone numbers, fees, samples, tests, etc., which may have changed.
- —Committees with their member names will be listed on the web site as well as in the Membership Directory.
- —The last six issues of the Newsletter will be maintained on the active web site. Older issues will be placed in the archives, which still can be accessed by members.
- —The web site is in Adobe format and can be searched by an Adobe Search engine. Thus, segments (such as grouped committee reports) of past Newsletters will not be listed separately.
- —Implementation of new technologies in web sites has been constrained by older versions of Netscape or Internet Explorer on the machines of many members. The web site version will be upgraded which will require a computer software upgrade for some readers. The committee decided to leave the web site upgrade progression to the discretion of the Editor and Webmaster. (Changes will likely require at least Netscape 4.0 or Internet Explorer 4.0.)
- —Position announcements (listed on the public side) will be deleted from the web site on the posted closing date for the position.

Web site enhancements such as Patron hot-links (which might be an incentive for corporate involvement) and metatags (links to and from other related web organizations or activities) were discussed. Advertising was discussed briefly. Given the traffic in the past and the inherent complications, a line of pursuit was not suggested. Also, investigations into larger ramifications, such as the Association tax-free status, must be considered.

Members are encouraged to actively participate in the web site and return any ideas for enhancements to the committee members or Web Editor.

SEROLOGY COMMITTEE

Friday Oct. 8, 1999, Dr. Sharon Hietala, chair

There were 147 guests in attendance.

The committee received no requests for technical review of products during 1999.

Updates on new or modified commercial products were provided by the following companies; VMRD, Synbiotics, KPL, Idexx, Diachemix, and Centaur/Viral Antigens.

The NVSL provided results of 1998/99 check tests and updates on diagnostic activities. NVSL asked the committee for input on prioritizing future proficiency test needs. The participants provided only general input on the need for check tests for those assays used in export (Vesicular stomatitis, IBR and BVD were specifically mentioned) and for USDA program diseases, such as avian influenza virus, *Salmonella pullorum*, *S. typhimurium*, *Mycoplasma gallisepticum*, and *M. synoviae*.

The committee reported that 10 interpretive summaries had been placed on the secure (members only) site of the AAVLD web page. An introduction statement outlining the process and format was also placed on the site. The interpretive summaries include: Canine *Brucella*, BVD virus, caprine arthritis encephalitis virus, avian chlamydia, equine herpesvirus, feline infectious peritonitis, Johne's disease, *Leptospira*, *Neospora caninum*, and PRRS virus. The committee has not solicited or provided additional summaries because there has not been resolution of the issue of interpretation where there are no accepted standards or reference antisera for comparative validation.

The "Guide to Unique Tests" which lists locations for those assays performed in 5 or fewer AAVLD labs, is currently located on the Oklahoma State University web site. Jim Evermann and Sandy Rodgers will co-chair the sub-committee to keep the list current, and to determine how to establish computer search-links or the feasibility of moving the list to the AAVLD Web page.

The sub-committee for Minimum Standards for Serology Labs reviewed, for areas of overlap and clarification, the AAVLD accreditation standards and the OIE draft interpretation of ISO 17025 for infectious disease diagnostic laboratories. The development of detailed guidelines to establish minimum standards for technical

training and proficiency, protocols, validation of assays and standard reference reagents was discussed. The sub-committee has a year 2000 objective of drafting guidelines for AAVLD labs for development of internal proficiency and training panels for serologic tests that will set minimum standards for the composition and use of these types of panels.

The serology committee established a 1999/2000 objective of offering an AAVLD workshop on test validation and standardization. The workshop will be planned for the year 2000 AAVLD meeting, either as a premeeting workshop or as part of the serology committee agenda.

In response to a request received by the committee, a sub-committee on sero-epidemiology and diagnostic epidemiology was newly formed. The sub-committee will address the role of this area in developing and providing interpretation of serology results. The subcommittee, formed of volunteers from the serology committee and audience (who are AAVLD members), will meet in 2000 to establish their specific objectives and goals.

The committee members discussed among themselves mechanisms to be more active and productive in the months between AAVLD meetings in order to complete and expand on AAVLD serology committee activities.

VIROLOGY COMMITTEE

October 8, 1999, Dr. Ed Dubovi, chair

There were 79 attendees that signed in and several dozen others who moved in and out of the room as the meeting progressed. This year's meeting was devoted to presentations dealing with several viruses that are emerging as diagnostic concerns.

Malignant catarrhal fever virus:

The first presentation was by Dr. Tim Crawford from Washington State. He outlined the current status of the virus group referred to as malignant catarrhal fever virus (MCFV). Research efforts have identified potentially new members of this virus group, but their significance in clinical disease has not been determined. Dr. Crawford outlined the various procedures used to diagnose the presence of MCFV in cases of clinical disease as well as animals that

may be latent carriers of the virus. The value of the two most frequently used tests, PCR and C-ELISA, in various situations was discussed. The competitive ELISA appears to be the most useful screening test, but the significance of non-clinical, antibody positive cattle has yet to be resolved.

Dr. Jim Collins, Colorado State University, presented data on the usefulness of PCR as a test to diagnose MCFV in clinical cases of disease in cattle and bison. The PCR primers used were based on the OHV-2 (ovine herpesvirus-2) sequence. Diagnostic criteria for defining MCFV were presented. There was excellent agreement with the clinical diagnosis of MCFV and the presence of OHV-2 sequences in tissue samples as detected by PCR. PCR detection tests for other bovine herpesviruses and bovine retroviruses were done on cases of clinical MCFV. There was no evidence of involvement of these viruses in clinical cases of MCFV. Amplified sequences from clinical cases were highly conserved.

Dr. Hong Li addressed the issue of the transmission of OHV-2 in sheep. Data was presented to show that lambs from OHV-2 positive ewes are not born infected and the virus is acquired several months after birth. Nasal excretion of the virus seems to be the source of virus for horizontal transmission. Raising lambs in isolation from OHV-2 positive animals permits the development of OHV-2 negative flocks.

Circovirus in pigs

Dr. Steve Bolin started the discussion of porcine circovirus (PCV) by outlining the characteristics of the virus and listing the probable members of the Circoviridae family. PCV can be cultured on numerous cell lines, but one must be careful that established cell lines are not chronically infected with PCV. The growth of virus from clinical cases was discussed. PCR tests are an excellent way to detect the virus as well as distinguishing between PCV-1 and 2. Many different tissues are useful for isolating the virus, but lymphoid tissues are most consistent.

Dr. Steve Sorden reported on his experiences dealing with post weaning multitsystemic wasting syndrome (PMWS) and PVC-2. The characteristics of the syndrome were reported. The primary diagnostic tool for linking PMWS and PVC-2 was immunohistochemistry. Enlarged lymph nodes are commonly encountered, but lymphoid depletion was a hallmark

of the disease which is a significant difference from PRRSV induced disease. PRRSV is frequently found in animals diagnosed with PMWS. There appears to be an increase in the PMWS in Iowa since the initial definition of the disease.

The situation regarding PCV-2 and PMWS in Quebec was reported by Dr. Renee Larochelle. PVC-2 represents most of the porcine circovirus isolated in Quebec. The issue of porcine parvovirus as a cofactor in PMWS was not indicated in the cases of PMWS in Quebec. PRRSV was more likely a cofactor. The existence of PCV in the swine population seems to have preceded the appearance of PMWS by several years again suggesting other factors influence this clinical entity. Data on experimental infections with PCV-2 were also presented. PCR was able to detect the virus in almost all tissues throughout the experiment.

Swine Influenza, H3N2

Dr. Gene Erickson initiated a discussion on the emergence of H3N2. He outlined his current procedure for the isolation of influenza virus from porcine samples. The use of MDCK cells along with the presence of trypsin in the maintenance medium were crucial components of the enhanced rate of virus isolation. This procedure also permitted a more rapid identification of the virus since the concentration of virus in the cell culture system was high enough to serotype directly. Eighty percent of isolates were identified in the first cell culture passage while only 2 percent were found in the third passage. The passage level of the cells may be important for optimal isolation rates.

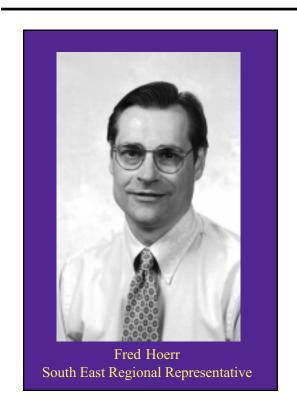
Dr. Sabrina Swenson reported on the efforts of the National Veterinary Services Laboratory with regard to swine influenza virus. The first report of H3N2 was from North Carolina in August 1998. This was followed by an isolation in Texas in November and then Iowa and Minnesota in December 1998. Infected animals exhibited depression, anorexia, elevated temperatures, coughing and some mortality in adult animals. Virus shedding in experimentally infected animals is of short duration. Of 596 isolates from 9/1/98 to 9/30/99, 57% were H3N2 while 43% were H1N1. The new swine viruses are reassortments among swine, avian and human influenza viruses. Cross-reactivity between serotypes is minimal.

Equine Influenza Virus

Equine influenza virus was the topic of the presentation by Dr. Jenny Mumford from the Animal Health Trust, Newmarket, England. The efficacy of equine influenza virus vaccines has been a concern of European animal health workers. This concern has not been evident in the US. Better vaccines require the inclusion of currently circulating viruses. While there are numerous isolates available from Europe, there are relatively few from the US. Dr. Mumford was seeking support for greater surveillance for and isolation of equine influenza viruses in the US with enhanced epidemiological efforts.

Llama and Alpaca Diseases

The session ended with a short presentation by Mr. Robert Frost representing the Camelid industry in North America. He and Dr. Murray Fowler are compiling infectious disease data on llamas and alpacas. Mr. Frost wanted to make the attendees aware of the need to recognize that camelids are not cattle and that diagnostic procedures for cattle may not be appropriate for camelids. The health issues related to camelids do not appear to represent a significant threat to the cattle industry.





Dr. Doris Miller receives a plaque of appreciation for her service as 1999 President from the incoming President, Dr. Bruce Akey



Donna Dare-- AAVLD liaison for site planning and our long term planner extraordinaire.



Passing of the gavel: Dr. Doris Miller passes the gavel to the incoming President Dr. Bruce Akey at the 1999 Annual meeting

LIFETIME MEMBERS



Dr. Harvey Gosser presents Dr. Stuart Nelson with lifetime membership to AAVLD. Drs. Martin Bergeland, Anthony Gallina, Lloyd Lauerman, Gaylord McKissick, and John Shook also received lifetime AAVLD memberships.



Dr. John Shook retired as
Secretary-Treasurer of
USAHA this year. We wish him well and express the heartfelt thanks from AAVLD for his superb cooperation over his many years of service.

AAVLD FOUNDATION SPONSORS 1999 GRADUATE STUDENT AWARDS



Dr. Latiffah Hassan, recipient of the Graduate Student Presentation award for her presentation on "*Listeria monocytogenes* and *Salmonella* Species in Milk Filters on New York Dairy Farms"



Dr. Harvey Gosser presents Dr. Chris Loiacono with the graduate student poster award for a poster "Epizootic Hemorrhagic Disease in Missouri Cattle"

2000 Committee Chairs

Standing Committees Chairs

Accreditation Leon Thacker- 2001 Awards Doris Miller - 2000 Credentials Pat Blanchard - 2000

Editor and Editorial Board, JVDI John Kreeger

Editor, Newsletter Pat Blanchard - 2001

Membership Pat Blanchard (co-) - 2000

Jim Evermann (co-) 2000

Nominating Doris Miller - 2000 Program David Zeman - 2000 Publications Gavin Meerdink - 2000

Web Editor Gary Osweiler

Special Committees

AAVLD Representative to WAVLD Konrad Eugster - 2000

Administrative Management Personnel Committee:

Paulletta King - 2000

Analytical Toxicology and Mycotoxins Committee:

Anant Jain, co-chair 2000

Dave Reynolds, co-chair - 2002

AAVLD/USAHA Animal Disease Information Systems Committee:

Bruce Akey, co-chair - 2002

François Elvinger, co-chair - 2001

AAVLD/USAHA Aquaculture Comm. Skip Jack, co-chair - 2000

Eric Park, co-chair - 2002

AVMA Liaison Program Don Lein - 2000

Bacteriology Steering Committee Lorraine Hoffman, co-chair - 2000

Mitzi Libal, co-chair - 2001

Subcte on Anaerobic Techniques Glen Songer - 2001

Subcte on Antimicrobial Susceptibility Ching Ching Wu, co-chair - 2000

David White, co-chair - 2000

Subcte on Bacteriology, Mycology and Mycoplasmology

Carol Maddox - 2000

Subcte on Mycobacteriology Charles Thoen - 2000 Constitution and By laws Committee John Andrews - 2000 <u>Committee</u> (continued) <u>Chair</u>

Enteric Diseases Committee Gerald Duhamel - 2001

Epidemiology Committee François Elvinger, co-chair - 2002

Mark Thurmond, co-chair - 2001

Financial Advisory Committee Leon Thacker - 2000

Foundation Committee Gavin Meerdink, co-chair - 2001

Leon Thacker, co-chair - 2001

Government Relations (former AAVLD - USDA Emergency Disease Liaison):

Konrad Eugster, co-chair - 2000 Director NVSL, co-chair - 2000

Informatics Committee James Kruse - 2000 Laboratory Directors Committee Alex Ardans - 2000

Laboratory Safety/ Waste Disposal Committee:

Larry Thompson - 2000

Long Range Planning Committee Willie Reed - 2001

Pathology Committee Paige Carmichael - 2002 Serology Committee Sharon Hietala - 2000 Virology Committee Ed Dubovi - 2000

Science, Politics, and Animal Health Policy Executive Fellowship

The College of Veterinary Medicine at Michigan State University and the Virginia-Maryland Regional College of Veterinary Medicine offer a unique learning experience in Science, Politics, and Animal Health Policy. This Executive Fellowship's three modules are designed to be interactive and participatory, engaging the Fellows in current animal health and veterinary issues, and honing skills that apply to a variety of situations in public or private veterinary medicine.

Each four-day module is designed around case studies of current animal health issues that are selected to build competencies critical to successful policy development and implementation on the state, national, and global level. The fellowship will consist of three modules held at locations that augment the program's state, national, and global agenda (East Lansing, Michigan; College Park, Maryland; Washington, DC; and a site to be chosen in Mexico). The international site will immerse the Fellows in a local case study.

The fellowship is led by Drs. Lonnie J. King and William Hueston. Dr. King is dean of the College of Veterinary Medicine at Michigan State University and the former administrator of USDA APHIS and Dr. Hueston is associate dean for the Maryland Campus of the Virginia-Maryland Regional College of Veterinary Medicine and former program leader for the US National Animal Health Monitoring System. Both are diplomates in the ACVPM (epidemiology). Their combined experience and leadership in national and international animal health, government relations, trade, and risk assessment are the foundation for the academic program. Modules utilize a wide variety of other instructors and incorporate interactions with congressional offices, government agencies, special interest groups, lobbyists, international organizations, pharmaceutical industries, and other sites that support the learning in specific case studies.

If you are interested in obtaining more information about the Science, Politics, and Animal Health Policy Fellowship, contact Dr. Dave Sprecher, Office of Outreach Activities, Michigan State University College of Veterinary Medicine, A-133 East Fee Hall, East Lansing, MI 48824. Email: outreach@cvm.msu.edu or phone 517-355-4466 or fax 517-432-2391.

NVSL Disease Update

West Nile Virus Infection Update

During the week of September 6, the Diagnostic Virology Laboratory of NVSL received submissions of samples from crows from the New York City area and zoo birds from the Bronx Zoo. Virus was isolated from these samples and diseases such as highly pathogenic avian influenza, exotic Newcastle, Western, Eastern and Venezuelan equine encephalitis were ruled out by various diagnostic techniques. After identification of a flavivirus by electron microscopy, virus isolates were forwarded to the Center for Disease Control Arbovirus Laboratory in Fort Collins, CO (CDC). The CDC made an identification of West Nile-like virus. Subsequent sequencing information has led the CDC to confirm that the causative agent of the bird mortality in the New York City area was due to West Nile virus, a virus not seen before in the Western Hemisphere. Retrospective analysis of human encephalitis cases in New York during 1999 led to reclassification of a number of these cases as West Nile encephalitis.

A cluster of horses with clinical neurologic signs was identified in Suffolk County on Long Island, New York. During October, samples from several affected horses were submitted to the NVSL. West Nile virus was isolated from three horses. Positive serology to West Nile virus was found by the CDC in samples collected from horses at several premises in the same area.

The number of reported cases of encephalitis (human, avian, and equine) has decreased with the onset of cooler weather in the northeast. However, there was a recent report of West Nile virus infection in a crow in Maryland. Cases of encephalitis in birds and horses, especially along the East coast from New York to Florida, should be reported to state and federal veterinarians. Surveillance studies are in progress to monitor possible movement of West Nile virus south along the eastern seaboard and to identify similar outbreaks in the future.

Dr. Beverly J. Schmitt, Diagnostic Virology Laboratory, NVSL

Johne's disease check tests:

As part of the voluntary National Paratuberculosis Certification Program developed by the United States Animal Health Association—Johne's Committee, the National Veterinary Services Laboratories (NVSL) was asked to develop a program to approve laboratories to perform tests for the diagnosis of Johne's Disease. Guidelines have been developed for antibody-based and organism-based tests. Laboratories are evaluated on their ability to perform the ELISA, although test performance assessment can be provided for the complement-fixation (CF) and AGID tests if requested. Fecal culture is the standard for the organism-based test although DNA probe tests are also evaluated if requested. The test panels consist of 25 sera and 25 fecal samples from known naturally infected culture-positive cattle and known culture-negative cattle herds.

A laboratory must pass an annual check test to maintain its approved status. If the laboratory fails to meet the established criteria, this does not prevent them from performing the tests since Johne's disease is not an official USDA disease control or eradication program at the present time. However, the Voluntary Johne's Disease Herd Status Program guidelines recommend that each state send samples to only NVSL-approved laborato-

ries. A user fee is charged by NVSL for the administration of the check test. A laboratory must achieve a minimum score of 90% correct identifications on the antibody-based tests to be considered approved. On the organism-based test, a laboratory must identify correctly 100% of the negative and too numerous to count (TNTC) fecal samples and 70% of the remaining samples to be considered approved. A valid fecal sample is determined by agreement of a consensus of >70% of the participating labs on each sample. There were 32 laboratories approved for the organism-based test (culture) in 1999 and 16 laboratories in 1998. A list of approved laboratories is published in the USAHA annual proceedings and NVSL newsletters, and on the National Johne's Working Group web site (http://www.usaha.org/njwg.htm).

Laboratories also have the option of having their media evaluated for pH, sterility, and growth performance. The recommended pH is between 7.0-7.5 on solid media. Sterility was checked at 24 and 48 hours. Growth performance was evaluated weekly up to 6 weeks. Tubes of Herrold's Egg Yolk Medium with mycobactin J were inoculated with 0.1 ml of a No. 0.5 McFarland standard culture of *Mycobacterium paratuberculosis* ATCC 19698, *M. avium* ATCC 25291 and *M. intracellulare* ATCC 13950. Nine labs in 1999 and 13 labs in 1998 participated in this evaluation. There was a mixture of commercially made and laboratory made media submitted. All of the media supported growth of *M. paratuberculosis* and was within established parameters.

A recommended organism-based procedure for cattle will be sent out in January 2000 along with the fecal check test request form. For further information on the Johne's Disease Laboratory Approval Program, please contact Dr. Janet B. Payeur by phone at (515) 663-7676, by fax at (515) 663-7315, or by e-mail to Janet.B.Payeur@usda.gov.

1999 Johne's Disease Proficiency Serologic Check Test Results

Fifty-nine laboratories participated in the 1999 Johne's Disease Proficiency enzyme-linked immunosorbent assay (ELISA) check test. Fifty-five laboratories correctly identified at least 23 of 25 serum samples and were approved as passing the check test. Accuracy scores were calculated from the ELISA optical densities and were provided for information purposes only. Four laboratories are still in the approval process.

Sixteen laboratories participated in the 1999 Johne's Disease Proficiency complement fixation (CF) check test. Twelve laboratories correctly identified at least 22 of 25 serum samples and were approved as passing the check test. Two laboratories are still in the approval process.

Agar gel immunodiffusion (AGID) test results were submitted from six laboratories. Results from the AGID test were not part of the approval process.

Applications for the 2000 Johne's Disease Proficiency Serologic Check Tests will be sent to potential participants January 15, 2000. For further information telephone Steven G. Hennager at (515) 239-8563 or E-mail to Steven.G.Hennager@usda.gov.

AAVLD NEWSLETTER EDITOR NOTE: If you have any suggestions for changes or additions to the AAVLD newsletter please contact pblancha@cvdls.ucdavis.edu or by phone at 559-688-7543 or fax 559-686-4231. Our special thanks and appreciation to Jamie Hall for all her efforts in formatting and production of this newsletter and to Dr. Art Bickford for his proofreading and editting assistance.

Quality Corner.....by Belinda Lawler-Goff

The Role of the QA Person in a Vet Diagnostic Lab (-and- Tips for How to Pick a Good One)

I have frequently been asked by veterinary diagnostic laboratory people, "Exactly what would a QA person do for our lab?" The question is a valid one, and it is certainly timely with the OIE draft document "Principles of Quality Management in Veterinary Diagnostic Testing Laboratories" emphasizing the importance of Quality in our labs.

The OIE draft document is really very much in line with requirements for a QA Unit as stated in the OECD Good Laboratory Practices (GLP) regulations (which are close to the definition found in the Environmental Protection Agency (EPA) and Food and Drug Administration (FDA) GLP regulations). Why the similarity? Because the regulations make sense, and 20 years of working under GLP have demonstrated the usefulness and importance of an independent QA person in the company or laboratory. I will keep this discussion in terms of veterinary diagnostic labs, whether or not they do regulated research.

Definitions: QA vs. QC (people spend hours debating this...here is one way of viewing it).

Quality Assurance will be defined here as an auditing or examination process that oversees all aspects of the work in the laboratory, from submission (or even pre-submission) to review of final reports of data. Simply put, QA refers to the lab's policy to prevent problems from occurring.

Quality Controls are the tools used by the diagnosticians and technicians to convince themselves that the systems are functioning properly and producing correct results (e.g., positive and negative controls, standards, check tests).

The point of a QA Unit (or QA person)

Benefits: Since requiring a QA Unit in the FDA GLP regulations 20 years ago, it has been found that while there was an additional expense associated with having QA personnel, QA has resulted in a marked improvement in the integrity of the entire process and in report accuracy. This had the general effect of decreasing the amount of work having to be repeated due to sloppiness and error.

In the veterinary diagnostic lab, QA would not replace/supplant the function of the diagnostician or technician, but only complement these. Some areas in which a QA person should have involvement include: facility evaluation and assessment, review and development of lab processes (e.g., submission process, chain of custody, sample tracking after splitting, final report, follow up, etc.), inspection of processes and procedures, auditing data, and reviewing reports. These areas of involvement can be viewed in another way: preventative QA, assessment QA and corrective QA.

QA exists to assist

-Inspection: assess compliance with requested tests, Standard Operating Procedures (SOP), and any pertinent regulations or standards; determine whether procedures and assays are competently performed

- -Data audit (during assay, diagnostic process): assess accuracy of recording and presenting data
- -Scientific interpretation of the data is the function of the diagnosticians & supporting disciplines, while confirmation of conclusions by assessing data is a QA function.

What makes a good QA person? (Things to consider when making hiring decisions.) The successful candidate will have some experience in a laboratory (even better if that was a veterinary diagnostic lab so that they can appreciate how unique these labs are, and the variety of work undertaken). They need at least general familiarity with laboratory equipment, specimen handling, and lab processes such as chain of custody and splitting samples.

It should be noted here, that the diagnosticians and technicians help to train the QA person regarding the equipment used and the procedures done in the lab. This partnering assures that the QA person can make the best assessment of processes and procedures during subsequent inspection and auditing.

The successful QA person needs to study people skills. It takes some finesse to find a problem and then present it in the best way to get cooperative problem solving or corrections underway. Although we are recognizing this whole process as a partnership, some lab people will take any comments or findings as personal criticism. As we all know, this is a continuing education item – we can all use frequent refresher courses and seminars on this topic. Remember that we are on the same team with the same goal of efficient, accurate, and cost effective diagnoses. Let's admit up front that people make mistakes, machines break down, and samples get lost. QA can work with you to minimize the occurrence of each of these problems.

The whole point. The whole point of having a QA person is for the *independent* assessment and opinion. This is why the QA person cannot write your SOPs for you. They will write their own SOPs for the things they do, and they can assist you regarding format, knowing what needs a SOP, and in reviewing your documents. However, they only review, they don't approve the documents... that is a management duty. Speaking of management...

Quality is Management Driven. Management should know how important Quality is to the laboratory, not only for our everyday work, and for AAVLD accreditation, but increasingly in the international arena too (evidence the OIE lab quality document). Management says we will have a Quality program, and so we will. This will become part of the personnel evaluation procedure, if you're on our team then you are part of the solution rather than part of the problem. Management will give the QA person the authority to inspect, audit, etc. – and QA person reports directly to management.

My wish for each of you is that you realize how important, wise and practical this is, and that this is basically good science. We used to teach that good data is valid and reliable. Are we still teaching and working by that philosophy? If so, then all of the quality factors listed above are in place and the benefits to our laboratories and to state, national, and international animal health will be evident.

Exhibitors at 1999 Annual Meeting

The exhibitors are an important part of our annual meeting each year and we would like to take the time to thank the following exhibitors at the 1999 annual meeting for their continued support of AAVLD.

AAVLD and the organizers of the Transmissible Spongiform Encephalopathy workshop would like to extend a special thank you to **Olympus America Inc** and their representative Bob Nazar (800-446-5967- phone or email at nazarb@olympus.com) for providing microscopes, multi-headed microscopes and projector microscopes for the workshop participants to use. The company web site is at http://www.olympus.com.

AutomaTek Inc (Joseph Akl)

5044 Chancel Dr., Huntsville, AL 35802. Ph 256-461-8792 Information system development and integration

Becton Dickinson (BD) Biosciences (Jennifer Riley)

7 Loveton Circle, Sparks, MD 21152. Ph 410-316-4000

BD biosciences manufacturers top quality products for veterinary microbiology

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Healthcare marketing research firm specializing in diagnostic medicine inclusive of veterinary diagnostic testing

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3938 Trust Way, Hayward, CA 94545. Ph 510-785-2564

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Centaur, Inc. (Mark Metrokotsas)

P. O. Box 25667, Overland Park, KS 66225-5667. Ph 913-390-6184

Manufactures and sells veterinary diagnostic test kits including foal IgG, semen test kits for bulls, stallions and boars, and serology kits.

Diagnostic Chemicals Limited (Stacie Hotham)

16 McCarville St., Charlottetown, PE CANADA C1E 2A6. Ph 800-565-0265

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ImmuCell Corporation (Joe Crabb)

56 Evergreen Dr., Portland, ME 04103. Ph 207-878-2770

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Kirkegaard & Perry Laboratories, Inc. (Sharon Davenport)

2 Cessna Ct., Gaithersburg, MD 20879. Ph 301-948-7755

Manufactures 21 USDA-licensed ELISA kits for turkeys and chickens and software packages for flock health monitoring.

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The Laboratory for Molecular Typing (LMT) was established by Professor Carl Batt in 1996 as joint venture between the College of Agriculture and Life Sciences and the College of Veterinary Medicine. LMT is a fee-for-service facility available to all users including those from outside Cornell University. The LMT offers a variety of technologies to identify and characterize microorganisms to the genus, species and subspecies level. The core technology of LMT is ribotyping, a form of very precise and highly diagnostic genetic fingerprinting of bacteria. The instrumentation used is the RiboPrinter® Microbial Characterization System from Qualicon (a subsidiary of DuPont). Ribotyping can be used to identify bacteria when traditional biochemical schemes prove nebulous, to link different bacterial isolates from raw ingredients and finished food products, to track sources of nosocomial infection, to verify the identity of bacterial isolates during therapeutic treatment, and to identify bacteria when added as a deliberate ingredient in a food product (i.e. yogurt).

The LMT offers a 16S rDNA identification service. This service involves sequencing the portion of the 16S rDNA that varies most among different genera and species. Along with sequencing, we provide a list of the ten most likely candidates for each sample, based on our database searches.

Laboratory for Molecular Typing, 157 Biotech Building, Cornell University, Ithaca, NY 14853-7201. Phone 608-255-1240. Fax 608-255-8741. e-mail address msb15@cornell.edu. Our web site is www.riboprinter.cornell.edu.

Upcoming Meetings

Fumonisins Risk Assessment Workshop, January 10-12, 2000. This workshop is sponsored by FDA/CFSAN, JIFSAN, WHO and USDA and will be held at the University of Maryland Conference Center in College Park. Contact Wendy Buckler for additional information about this workshop at phone: 202-205-4153 or e-mail address: wbuckler@bangate.fda.gov.

XIth. Meeting of the European Study Group on Molecular Biology of Picornaviruses (EUROPIC) announcement on the web site: http://www.europic2000.it. A very preliminary scientific program, a short description of the venue, a brief note on the social activities organized with some views of the place and a pre-registration form are available. If problems with site access contact: bercoff@caspur.it

Western Veterinary Conference, Las Vegas, NV. February 20-24, 2000.

Western Poultry Disease Conference, March 5-7, 2000 and workshop on March 4, 2000. Contact Dr. Richard Chin at rchin@cvdls.ucdavis.edu for more information.

Sixth Southeastern Virology Conference, March 24-26, 2000, Georgia State University, Atlanta, GA. Three scientific sessions are planned. Workshops will focus on aspects of virology. For further information and submission of abstracts send your name, postal address and Email address by EMAIL to: Dr. Andrew Ball at andyb@uab.edu.

Northeastern Regional USAHA and NE-AVLD, May 7-10, 2000 in Bar Harbor, Maine. Dr. Don Hoenig, State Veterinarian of Maine, is hosting the meeting. Topics will include Johne's Disease, Cattle and Poultry Health Assurance Programs, West Nile Virus update, Avian Influenza, Equine Infectious Anemia, Rabies control, State reports, etc. For more information contact: Dr. Don Hoenig, Maine Dept. of Agriculture, Division of Animal Industries, 28 State House Station, Augusta, ME 04333.

28th Annual Southeastern Veterinary Pathology Conference (SEVPAC), May 20-21, 2000, in Tifton, Georgia. The \$35.00 registration fee includes full slide sets for each presenter, history and summary booklets for participants, refreshments, social hour and evening meal. The case collator is Dr. Robert B. Duncan, Department of Biomedical Sciences and Pathobiology, VMRCVM, VA Tech, Blacksburg, VA 24061, E-mail: duncanr@vt.edu. Telephone: 540-231-6441. FAX: 540-231-7367. The **deadline for submission of cases will be approximately March 31, 2000**. Seventy (70) microscopic slides are required. The conference coordinator is Dr. Ken Frazier, Veterinary Diagnostic and Investigational Laboratory, The University of Georgia, P.O.Box 1389, Tifton, GA 31793. E-mail: kfrazier@tifton.cpes.peachnet.edu. Telephone: 912-386-3340. FAX: 912-386-7128.

North Central Conference of Veterinary Laboratory Diagnostians 39th annual meeting, June 19-21, 2000 at Michigan State University, East Lansing, MI. Deadline for submission of abstracts is April 1, 2000. Submit abstracts to Dr. Barbara Steficek, Animal Disease Diagnostic Laboratory, PO Box 30076, Lansing, MI 48909-7576 or steficek@ahdlms.cvm.msu.edu, phone: 517-355-3439. Pre-register by May 1, 2000; contact Aileen Kleiver at same address (kleiver@ahdlms.cvm.msu.edu; phone 517-353-3509).

AAVLD and USAHA annual meeting, Birmingham, AL. October 19-26, 2000, Sheraton Civic Center Hotel.

CALL FOR PAPERS 2000 AAVLD Annual Meeting, Birmingham, AL October 19-26, 2000

Papers and posters are being solicited on laboratory procedures, techniques, and research that apply to the activities of veterinary laboratory diagnosticians. Papers and posters from all diagnostic laboratory disciplines and animal species are needed for a well-balanced program. Investigative case reports are especially encouraged. Presentations at the meeting are limited to 15 minutes. **Deadline for Abstracts: MAY 15, 2000**. The AAVLD Program Committee will review abstracts and corresponding authors will be notified of acceptance by July 15, 2000.

FORMAT: Send a hard copy and a disk with the abstract in Word 97 version or older, or Wordperfect 6.1 or older. Except for special session topics, all abstracts should be one page or less. Please format the body of the abstract with one-inch margins and use the Times New Roman 11-point font. Abstracts may also be submitted as an e-mail attachment in formats listed above. Abstracts should be accurate and complete. Statements such as "results to be discussed', are not satisfactory. Previous meeting proceedings should be examined for style.

Please indicate or include the following: A) Is the submission to be considered for the **Graduate Student Competition**? B) Do you desire an oral presentation, poster, or either? C) What session do you prefer (microbiology, toxicology, pathology, epidemiology, avian/aquatic)? D) Name, address, phone, fax and email address of the corresponding author

Submit to:

Dr. David H. Zeman South Dakota State University Department of Veterinary Science/ADRDL PO Box 2175 Brookings, SD 57007-1396

Ph: 605-688-5171, Fax: 605-688-6003 Email: David_Zeman@sdstate.edu

Publication of Proceedings:

Manuscripts are encouraged for all papers and posters selected for presentation at the annual meeting. Those accepted by the editor after scientific peer review will be published as refereed journal articles in the Association's JOURNAL OF VETERINARY DIAGNOSTIC INVESTIGATION. Guidelines for format and style of manuscripts and posters will be provided to authors of papers or posters selected by the Program Committee. Authors are encouraged to submit their manuscripts to the editor for processing prior to the meeting if possible.

Graduate Student Awards:

A certificate and \$250 will be awarded to the resident/graduate student who contributes the best presentation at the annual meeting of the AAVLD.

A certificate and \$250 will be awarded to the resident/graduate student who contributes the best poster at the annual meeting of the AAVLD.

Note: Graduate student presentations must be indicated on the abstract to qualify.

Saturday Histopathology Slide Seminar

October 21, 2000, 6:30-9:00 pm.

Short, interesting, and educational cases presented in an informal setting. Presentations should be no more than 5 minutes in length. A copy of abstracts will be available at the seminar and on the web site prior to the meeting.

Please limit abstracts to no more than one single-spaced page in length. A block of tissue should accompany case abstracts so that slide sets can be prepared in advance of the meeting. **DUE DATE for Abstracts: August 15, 2000**

Submit abstracts to: Dr. Pam Parnell Clemson Veterinary Diagnostic Center PO Box 102406 Columbia, SC 29224-2406 Ph: 803-788-2260

Fax: 803-788-8058

Email: pprnll@clemson.edu

Or

Dr. Donal O'Toole Wyoming State Veterinary Laboratory University of Wyoming 1174 Snowy Range Road Ph: 307-742-6638

Fax: 307-742-0038 Fax: 307-721-2051 Email: dot@uwyo.edu

Please send your abstract via mail, FAX or as an Email attachment to either chairperson. Format: MS Word 6.0 or WordPerfect 5.1(DOS), 6.0, c.1. If sending by mail, include hard copy and a 3.5" disk in one of indicated formats. Authors will be notified of presentations accepted by September 1, 2000. If there are multiple authors, please underline the individual who will be giving the presentation.

Diagnostic Bacteriology/Mycology Case Report Discussion

Friday, October 18, 2000, 7:00-10:00 pm

Come and join an interesting and informative discussion group. We need your case presentations in order to make this gathering successful. All presentations are very informal—yours will be welcome! Please **send title** of presentation to Melissa Libal at mlibal@tamu.edu or phone: 409-845-3414 **by August 15, 2000.**

CHARLES LOUIS DAVIS, D.V.M. FOUNDATION DOMESTIC ANIMAL PATHOLOGY VIDEO TUTORIAL REFERENCE LIBRARY VOLUME 1 YEAR 2000 SUBSCRIPTIONS

The Foundation has developed a series of video tutorials to provide VETERINARY LABORATORY DIAGNOSTI-CIANS a convenient and enjoyable means of refreshing their knowledge of and enhancing their expertise in the diagnosis of disease in domestic animals. Commencing with January 2000, The Foundation will begin distribution of Volume 1 of this series of video tutorials. Subscriptions are available to commercial or governmental veterinary diagnostic laboratories and individual veterinary laboratory diagnosticians worldwide. A subscription to this program does not constitute a Corporate, Institutional, or Individual membership in The Foundation.

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

- 1. Jan.- DISEASES OF SWINE- Lecture 1, by Dr. Gregory W. Stevenson, Animal Disease Diagnostic Lab., Purdue University, West Lafayette, Indiana
- 2. Mar. DISEASES OF SWINE-Lecture 2, by Dr. Gregory W. Stevenson
- 3. May DISEASES OF SWINE-Lecture 3, by Dr. Gregory W. Stevenson
- 4. July. OVERVIEW OF AVIAN PATHOLOGY Lecture 1, by Dr. H. L. Shivaprasad, California Veterinary Diagnostic Laboratory Service, Fresno, California
- 5. Sep. OVERVIEW OF AVIAN PATHOLOGY Lecture 2, by Dr. H. L. Shivaprasad
- 6. Nov. OVERVIEW OF AVIAN PATHOLOGY Lecture 3, by Dr. H. L. Shivaprasad

Commercial and governmental veterinary diagnostic laboratories or individual veterinary laboratory diagnosticians who desire to subscribe to volume 1 of THE DOMESTIC ANIMAL PATHOLOGY REFERENCE LIBRARY MAY MAIL THE ORDER FORM AT THE BOTTOM OF THIS PAGE TO The C. L. Davis Fdn, 6245 Formoor Lane, Gurnee, IL, 60031-4757, USA [Tel: 847-367-4359]. Be certain to include payment with your order and to specify your video signal [] NTSC, [] PAL, [] SECAM, [] MESCAM as well as your correct mailing address. Make checks payable to the C. L. DAVIS FDN. The Foundation also accepts VISA, AMEX, MasterCard and DISCOVER credit cards. Print your credit card number on the order, including its expiration date. The Foundation has no means of supporting this outreach program other than the funds derived from the subscription fee and is not in a position to grant free subscriptions.

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Soon to be released, this handbook will be a valuable reference and guide for every clinical veterinarian and veterinary pathologist who has any requirement to perform a necropsy on any species of animal..217 pages covering:

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- **C. Liver and Gall Bladder** (4 entities are described)
- **D. Endocrine** (5 entities are described)
- E. Kidney and Urinary Bladder (7 entities)
- F. Respiratory (8 entities are described)
- G. Cardiovascular (8 entities are described)
- H. Bone (1 entity described)
- I. Central Nervous System (2 entities described)
- J. Fetus (2 entities described)
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Addended Notes

- A. The Smells of Pathology (20 entities described)
- B. Brief Comments on Neoplasia
- C. The Time of Death (7 indicators discussed)
- D. Decomposition
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AAVLD Manuals and Materials

Veterinary Diagnostic Laboratory Guidelines for Radiation, Chemical and Biological Safety, 1996 produced by the AAVLD safety committee are available for \$10.00 each. Check or credit card is acceptable. Make checks payable to AAVLD. See address below.

A CD-ROM of the first 10 years of the Journal of Veterinary Diagnostic Investigation are also available for \$50.00 for members or \$100.00 for non-members. Check or credit card is acceptable. Make checks payable to AAVLD. See address below.

Workbook/proceedings from the 1998 AAVLD PCR workshop titled **Nucleic Acid Amplification assays for diagnosis of animal diseases.** The manual is 166 pages and contains over 200 PCR primer sequences for various viral, bacterial and mycoplasmal organisms from 37 contributors. Manual cost plus shipping and handling is US\$25.00 (within US) or US\$30.00 (international). Check or credit card is acceptable. Make checks payable to AAVLD.

Members outside the US please remit by draft on US bank or international postal money order.

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Position Announcements

For further details contact the person listed. Full listings appear on web site at <u>WWW.AAVLD.org</u> under Position announcements.

Diagnostic Anatomic Pathologist

Phoenix Central Laboratory in Seattle, WA is seeking a full-time, service- and team-oriented diagnostic anatomic pathologist. If interested, direct a curriculum vitae and references or any queries to Dr. Bob Murnane, Phoenix Central Laboratory, 11620 Airport Rd, Suite 100, Everett, WA 98204-3742, phone: 1-800-347-0043, fax:1-425-355-3676, or e-mail: bobm@pclv.net.

Poultry Laboratory Diagnostician

The Pennsylvania Veterinary Laboratory is seeking a poultry veterinary laboratory diagnostician for its diagnostic laboratory in Harrisburg, PA. Expressions of interest or nominations should be made as soon as possible to Dr. H. Graham Purchase, Chief, Veterinary Laboratory Services, Pennsylvania Veterinary Laboratory, 2305 N. Cameron Street, Harrrisburg, PA 17110-9449. Phone: 17-787-8808 X 207, FAX 717-772-3895, E-mail hpurchase@agric.state.pa.us.

Assistant Professor Bovine Medicine—Beef Cow/Calf Production

The Department of Veterinary Diagnostic and Production Animal Medicine at Iowa State University seeks applicants with experience and expertise in bovine production medicine with an emphasis on beef cow/calf production. Applications: to guarantee consideration, submit by December 1, 1999. Please send an application, including interests and goals, curriculum vitae, and names of four references to: Dr. Nolan R. Hartwig, Chair, Department of Veterinary Diagnostic and Production Animal Medicine, 1710 College of Veterinary Medicine, Iowa State University, Ames, IA 50011.

Chair, Department of Veterinary and Microbiological Sciences

The North Dakota State University College of Agriculture invites applications and nominations for the position of Chair, Department of Veterinary and Microbiological Sciences. Applicants should submit an application letter indicating how the qualifications have been met, goals and administrative philosophy; a current curriculum vitae; names and contact information for five references. Mail, fax, or email applications (applicants using e-mail should also submit a hard copy of their application as soon as possible) to: Dr. Jim Venette, Chair VMS Head Search Committee, 306 Walster Hall, North Dakota State University, Fargo, ND 58105, 701-231-7851, or jvenette@ndsuext.nodak.edu. **Review of applications will begin December 15, 1999 and continue until the position is filled.**

Veterinary Pathologist Zoo and Wildlife Pathology

The Zoological Pathology Program (ZPP) and Laboratory of Veterinary Diagnostic Medicine at the University of Illinois College of Veterinary Medicine, in association with Chicago Zoological Society Brookfield Zoo, John G. Shedd Aquarium and Lincoln Park Zoological Gardens are seeking applications for a full-time, non-tenure track Zoo and Wildlife Pathologist. To apply for the position send a Curriculum Vitae, narrative of career goals, and contact information for 3 references to: Dr. Michael Kinsel, Chair, Zoo and Wildlife Pathologist Search Committee, Zoological Pathology Program, Loyola University Medical Center, Building 120 Suite 400, 2160 South First Avenue, Maywood, Illinois 60153; Tel. 708-216-3946, FAX 708-216-5881, e-mail: mkinsel@wpo.it.luc.edu. **The closing date for applications is December 30, 1999.** Anticipated start date is June 1, 2000.

Diagnostic Veterinary Pathology— Assistant Professor, University of Georgia

The Athens Veterinary Diagnostic Laboratory (ADL) of the University of Georgia College of Veterinary Medicine and Georgia Department of Agriculture is seeking applicants for a tenure track position in diagnostic veterinary pathology at the rank of Assistant Professor. **Applications will be accepted until January 1, 2000.** Interested candidates should submit a letter of intent, current curriculum vitae, and the names and addresses of four references to: Dr. Doris Miller, Director, Athens Veterinary Diagnostic Laboratory, College of Veterinary Medicine, University of Georgia, Athens, Georgia, 30602-7383.

Director, Tifton Veterinary Diagnostic & Investigational Laboratory, University of Georgia

The College of Veterinary Medicine at the University of Georgia invites applications for the position of director of the Tifton Diagnostic & Investigational Laboratory. Interested candidates should submit a letter of intent, current curriculum vitae, and the names and addresses of four references to: Dr. Edward A. Mahaffey, Chairperson, Search Committee, College of Veterinary Medicine, The University of Georgia, Athens, Georgia, 30602. Inquiries may be directed to Dr. Mahaffey at (706) 542-5716 (telephone), (706) 542-8254 (fax), or mahaffey@calc.vet.uga.edu (email). **Applications received by February 15, 2000 are assured of full consideration.** The position is available on April 1, 2000; starting date is negotiable.

Chair, Department of Veterinary Diagnostic and Production Animal Medicine, Iowa State University The Iowa State University College of Veterinary Medicine invites applications and nominations for the position of Chair of the Department of Veterinary Diagnostic and Production Animal Medicine. Please send nominations and applications to Dr. Don Draper, VDPAM Chair Search Committee, 2016 Veterinary Medicine, Iowa State University, Ames, Iowa 50011. Applicants should submit a letter describing their qualifications, professional goals, and administrative philosophy relative to this position. Curriculum vitae and a list of three references with addresses should be included. Applications will be accepted until February 15, 2000, or until the position is filled. For further information: Call 515-294-4415 or access http://www.vetmed.iastate.edu/Positions&Searches/Chair.html.

Veterinary Student Externships in Pathology

The Davis Foundation for the Advancement of Veterinary Pathology is offering 1-2 month externships for veterinary students with an interest in pathology. For a list of the sponsoring sites in diagnostic, laboratory animal, and zoo pathology, interested students should contact: Dr. James Britt, Arkansas Livestock and Poultry Commission, #1 Natural Resources Dr., Little Rock, AR 72205; phone: (501) 225-5650 or email: james.britt@mail.state.ar.us

Southeastern Veterinary Pathology Conference

The 27th Annual Southeastern Veterinary Pathology Conference (SEVPAC) took place in Tifton, Georgia, May 15-16, 1999. Eighty-five veterinary pathologists from 16 states participated in a conference designed to provide an exceptional continuing education opportunity at a very low cost. Participants heard 45cases presentations. Invited guest speaker Dr. Thomas P. Brown presented a discussion on "Gross and Microscopic Pathology of New and Re-emerging Diseases of Commercial Poultry."

The 28th conference will be held May 20-21, 2000 in Tifton, GA.



The 27th Annual Southeastern Veterinary Pathology Conference organizers (left to right): Dr. Lou Newman (GA), 1999 conference coordinator; Dr. Ken Frazier (GA), 2000 conference coordinator; Dr. Neil Allison (TN), case collator; Dr. Bob Duncan (VA-MD), conference moderator; and Dr. Tom Brown (GA), invited speaker; SEVPAC, May 15-16, 1999.



American Association of Veterinary Laboratory Diagnosticians, Inc.

CVDLS, SVM, UC Davis PO Box 1522 Turlock, CA 95381

2000 MEMBERSHIP APPLICATION

American Association of Veterinary Laboratory Diagnosticians, Inc.

CVDLS, SVM, UC Davis, PO Box 1522, Turlock, CA 95381

The purpose of the American Association of Veterinary Laboratory Diagnosticians is the dissemination of information relating to the diagnosis of animal disease, the coordination of the diagnostic activities of regulatory, research and service laboratories, the establishment of uniform diagnostic techniques and the establishment of accepted guides for the improvement of diagnostic laboratory organizations relative to facilities, equipment and personnel qualifications.

Any laboratory worker engaged in the field of disease diagnosis in animals or in allied fields involving teaching, research, commercial or regulatory functions is eligible for membership and is invited to join.

□ Full Member \$50.00 Annual Membership Dues □ Graduate Student/Resident/Retired Member \$25.00 Annual Membership Dues □ Associate Membership for clerical and lab technical staff \$25.00 Annual Membership Dues* Dues include a subscription to the AAVLD Newsletter, a current AAVLD membership roster, and the Journal of Veterinary Diagnostic Investiga- tion (*JVDI not included in Associate Membership). Please return the application below with your check or mon	Payment by MC/VISA is accepted. A processing fee of \$2.00 is added. MC VISA Card # Expiration Date Signature ey order:
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