December 2001





2002 Executive Board

President	Pat Blanchard
President-Elect	Terry McElwain
Vice President	Willie Reed
Immed. Past President	David Zeman
Secretary/Treasurer	Alex Ardans
North East	Beverly Byrum
South East	Fred Hoerr
North Central	Neil Dyer
South Central	Melissa Libal
North West	.Donal O'Toole
South West	Barbara Powers
Canada Provincial	Grant Maxie
Canada Federal, Ex-officio	W.D.G. Yates
Ex-Officio, NVSL	Beverly Schmitt

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AAVLD President's Message

The AAVLD and USAHA annual meeting in Hershey, PA received very good reviews by members of both organizations with high marks for the scientific content, quality of the hotel and facilities and the joint Presidents reception, a sit down dinner this year partially sponsored by IDEXX. I would like to thank the many individuals that manned the USAHA office particularly Linda Ragland for her major efforts throughout the year working with the hotel prior to and at the meeting and our own AAVLD people Emily Sanson, Sharon Hein and Donna Dare. The efforts of the Program committee and most importantly, all of the speakers who submitted abstracts and presented papers were critical to the quality of scientific programs. The abstracts are now on the AAVLD web site for those of you who were unable to attend (www.aavld.org). This year's first plenary session was very well attended and the information on FMD was timely and for many a real eye-opener but also offered hope with the development of new rapid diagnostic testing for both FMD and look-a-like diseases. The second plenary session on TSE and our first joint effort with USAHA was a standing room only success to the point we had to open an adjoining room for the overflow crowd of ~450 people. Invited speakers Professor Joe Brownlie on FMD from the UK, Dr. David Taylor of Edinburgh on prion inactivation and a series of presentations by Dr. Marcus Doherr from Switzerland on BSE were major contributors to our plenary sessions.

The six weeks since the November meeting has been busy as AAVLD moves forward in our efforts towards upgrading our laboratory quality systems. A Quality Managers committee chaired by Monte Reimers has been established with the goal of writing a template of a Quality Manual for diagnostic laboratories to utilize in writing their own manual. In December, we will have the first meeting of the working group outlined in the MOU between AAVLD and NVSL. The objectives of the group are to work toward development of a national strategy for provision of quality animal health diagnostic services. Beginning in January 2002, I will represent AAVLD as a participant on the National Animal Health Emergency Management Steering committee (NAHEMS), a partnership to date between AVMA, USDA, USAHA and AAC with recent additions of FEMA and NEMA. In the coming months, an Emergency Preparedness committee will be established to co-ordinate and expand the bioterrorism work done by Dr. Gary Osweiler's group at lowa State University under a DOE grant and the efforts begun by Dr. Huxsoll when he was at LSU under a DOD grant. The new committees activities will extend beyond bioterrorism agents and will include response capability and identification of facility, training and personnel needs to address future food-borne pathogen testing in the face of an outbreak, newly emerging diseases (e.g. WNV) and foreign animal disease outbreaks. AAVLD has established a liaison with the Association of Public Health Laboratories (APHL) via Dr. Bruce Akey, chair of the Government Relations committee. Our associations have three major areas of overlap, specifically testing and surveillance for zoonotic diseases (ie WNV, rabies, etc), food-borne pathogens and bioterrorism agents. The Food Safety committee established in July 2001 under the chairmanship of Dr. Richard Oberst will also be exploring areas of mutual interest with APHL and government agencies including FDA and FSIS. A major issue facing AAVLD members with regards to food borne pathogens and bioterrorism agent testing along with our routine diagnostic testing is the need for standardization at the very least finding the same agents if given the same sample as another laboratory? This issue led in 2000 to the establishment of the Approved Methods committee with chair Frank Galey, due to Frank's new duties he is unable to continue as chair and Barbara Martin at NVSL has agreed to chair this committee in the coming year.

A number of national issues are and will in the future impact diagnostic laboratories and I have placed some of these web sites and information sent to AAVLD members via the membership email distribution list or in some cases the more limited discussion list on page 37. This material includes sites of a recent FMD conference, CDC national laboratory response network for bioterrorism, Tanya Lemire's web database for IHC tests, the site for the Foreign Animal Disease Gray Book and the USDA Safeguarding review report. I would like to thank Dr. Bruce Akey for keeping us updated on many of these issues.

In 2001, AAVLD continued our discussion with USAHA on site selection for the annual meeting. We are continuing to make progress on the mutual desire to identify two sites in each of the four regions to rotate between rather then finding new sites every year. San Diego will be a repeat site in 2003. Minneapolis is being explored again for a future meeting (2006) and Greensboro, North Carolina, the site selected for 2004 has great promise but this will depend on the outcome of the meeting there. Hershey, PA was very well received by participants this year and is being considered for a possible repeat in the future .

Have a safe, healthy and happy holiday and feel free to contact me if you have any concerns or suggestions.

Pat Blanchard, President AAVLD (aka newsletter editor) email: pcblanchard@ucdavis.edu phone: 559-688-7543

AAVLD Executive Board Meeting

Friday, November 1, 2001, 1:00pm-5:00pm

Hershey Lodge- Tower Room

Present: Alex Ardans, Terry McElwain, Barb Powers, Willie Reed, David Zeman, Bruce Akey, Donal O'Toole, Gary Osweiler, Pat Blanchard, Bev Schmitt, Bev Byrum, Fred Hoerr, Grant Maxie, Melissa Libal, William Edwards, John Kreeger **Guests**: Leon Thacker, Frank Galey

1. The meeting was called to order at 1:23 pm by David Zeman.

2. APPROVAL OF MINUTES: Minutes of the July 14, 2001 Executive Board Meeting were reviewed. A motion was made to approve the minutes (Blanchard), seconded (Byrum) and passed unanimously.

3. TREASURER'S REPORT: Alex Ardans presented the report of the Treasurer as follows:

Checking Account Balance on Hand January 1, 2001: Total Administrative Operating Receipts Total Administrative Operating Expenses ENDING BALANCE SEPTEMBER 30, 2001:	\$152,859.44 \$96,652.65 (\$153,367.11) \$96,144.98
Certificates of Deposit as of SEPTEMBER 30, 2001	
CD#000418518	\$14,745.71
CD#00475591	\$14,132.12
TOTAL, CERTIFICATES OF DEPOSIT	\$28,877.83
Mutual Fund, Edward D. Jones, as of SEPTEMBER 30, 2001	
Account #190876276 New Perspective Fund	\$69,232.33 (-14.98%)
Account #165939129 Investment Co. of America	\$70,785.14 (-10.24%)
TOTAL MUTUAL FUNDS	\$140,017.47

TOTAL ASSETS ON HAND- SEPTEMBER 30, 2001

\$265,040.28

A motion to accept the report was made, seconded (Akey), and carried unanimously.

4. PRESIDENT'S REPORT- David Zeman

David Zeman announced the completion of the draft Memorandum of Understanding with NVSL that will be presented to the House of Delegates for a vote at Saturday's meeting. He also thanked the Accreditation Committee for their efforts in putting forth recommendations for the future path of the Accreditation process.

5. COMMITTEE REPORTS

Accreditation – Leon Thacker reported that the Accreditation Committee had a lengthy discussion regarding the future direction of AAVLD Accreditation as related to ISO 17025 and OIE Standards. (See "White Paper," below). Reports were received from 5 laboratories during the meeting on Friday, November 1, 2001, and appropriate action will be taken on those. There was discussion regarding the site visit/lab fees, which have not been raised in over 10 years. Because of potential changes to the site visit process in the future, the committee would like to consider raising fees gradually to accommodate potential increases in costs. They discussed charging a site visit fee for branch laboratories.

JVDI- John Kreeger reported that the JVDI is doing very well. The number of manuscripts received during the first 10 months of this year has already exceeded the number received all last year. It is estimated that 185 manuscripts will be received in 2002. There is currently a 50 day turn-around-time on manuscripts with a 58% acceptance rate. In 1999 the journal ranked 11 out of 176 veterinary publications; the 2000 Science Reports haven't come out yet. The AAVLD membership application will be added to an issue in 2002. The AAVLD Foundation donor form will be run when there is blank space. The editorial assistant has reduced her time to 75%, which will result in some salary savings to the Association.

Newsletter- Patricia Blanchard announced that next year will be her last year as Newsletter Editor.

Monographs- Fred Hoerr reported that the committee has not received any monographs.

Web Site Update- Gary Osweiler reported that this has been a busy year for the website. The main menu has been redesigned. The Publications committee did most of the initial work, but they are still looking for comments and suggestions. The member login by username and password is set up; about 150 people have set up their personal passwords. The Publications committee has recommended that the general login stop working on January 1, 2002, and that a warning be posted in advance. The membership directory is online, taken from the Secretary/Treasurer's office database. Members can update their own information (such as change of address,etc). The JVDI manuscripts are posted and are up-to-date with the exception of the last few issues. There is also a newsgroup/chat group which is currently not being used.

Program Committee- Patricia Blanchard reported that the program contains 100 papers (12 of which are graduate students), and 16 posters (5 graduate students). Major changes this year include plenary session scheduling and a joint session between USAHA and AAVLD on Monday morning. Sponsorships were solicited and received, and used to bring in special speakers for the plenary sessions.

The site selection process has been completed for 2004 (Greensboro, NC; pending final approval by AAVLD and USAHA boards). At this year's meeting USAHA is going to propose sites for the 2005 annual meeting. USAHA has indicated they are in favor of rotating 2 sites per region (4 regions), but has not developed a formal plan to do it. San Diego and Minneapolis are both proposed as rotating sites.

A motion to support approval of the Greensboro site to be taken forward to USAHA was made (Akey), seconded (Powers), and passed unanimously.

There was discussion regarding changing the name of the Saturday night AAVLD President's reception to the AAVLD WELCOME RECEPTION so that there is no overlap with the Joint President's Reception on Sunday night.

There was discussion regarding the CL Davis seminar. Suggestions included to make it more tailored for the diagnostic audience and have more time for questions and dialogue. The Pathology Committee is encouraged to bring forward suggestions for topics in the future.

Canada – Grant Maxie reported for Bill Yates. The federal and provincial veterinary laboratory organizations in Canada are heavily involved with various aspects arising from the tragic events in New York on September 11, 2001. Security at facilities, and various aspects of emergency preparedness and workload increases are being addressed. Anthrax is a key concern, and the disease is "reportable" under Canada's Health of Animals Act. Steps have been taken to increase capacity in order to cope with the concerns of the public and of security agencies over this and other pathogens of potential use as bioterrorism weapons.

Membership- Terry McElwain reported that as of 9/30/01, there were 1228 active members, which is an all-time high. 143 new-member welcome letters were sent in 2001, along with over 300 emails reminding delinquent members that they needed to renew. 2001 was the first year with the October1st dues deadline.

Per previous email discussion, a motion was made to share membership contact information with AAAP (F. Hoerr), seconded (W. Reed), and passed unanimously. The Secretary/Treasurer's Office will send the list to Beth Hershinsky or Fred Hoerr.

Credentials – Terry McElwain reported there are no changes since the last meeting. **Foundation**- No report.

NVSL Report- Bev Schmitt reported that a selection has been made for the Director's position and they hope to have a permanent Director named by the end of November. The CDC has asked NVSL to assist with testing of environmental samples for Anthrax. She reported that NVSL has had preliminary discussion with the North Carolina State Diagnostic Lab to provide conjugates for CSF; it will be a one-year pilot program, generating ~4 cases per week.

Nominations- Bruce Akey reported that candidates for the 2002 election had been identified in September, and elections were held. Willie Reed was elected Vice-President of 2002, Melissa Libal was elected South-Central Representative, and Neil Dyer was elected North-Central Representative. There was discussion regarding whether or not a written procedure should be developed for future committee chairs. Willie Reed reported that the Long-Range Planning committee had discussed the issue in their 10/31/01 meeting, and had recommended that there be no change to the nomination process.

A motion was made that the Executive Board establish a procedure that the nomination committee: a) canvass the membership for suggestions for candidates and b) select no more than 2 candidates for each position on the ballot (Akey), seconded (Blanchard), and passed unanimously.

Awards- Bruce Akey reported that there was some confusion regarding the JVDI manuscript award, and how and when it will be implemented. After discussion, the following was clarified:

-The JVDI Editor will provide the Awards Committee with 5 nominees for outstanding paper for 2001 at the end of this calendar year. The Foundation Committee will be responsible for identifying a winner and funding the award, which will be presented at the 2002 annual meeting. Bruce Akey and John Kreeger have identified some criteria that can be used to select the winner, and they will forward the information to David Zeman. (Ed. Note: after the meeting the process was changed to have the Editor of JVDI send the 5 nominees to the chair of the Foundation committee directly for selection.)

The Pope award winner will be announced at the second House of Delegates meeting. Bruce Akey announced that the awards committee needed an additional member to select the graduate student awards; David Zeman volunteered.

6. OLD BUSINESS

Memorandum of Understanding with NVSL- A motion to accept draft #9 of the MOU was made (Blanchard), and seconded (Akey). After discussion, the second sentence of Article One was changed to read, "Animal health diagnostic services are predominantly provided in each state by publicly funded laboratories staffed by members of the AAVLD." The last line of Article 7 was amended to read, " Work with AAVLD to move towards international quality standards." With these changes, the motion passed unanimously and was scheduled for presentation to the House of Delegates on Saturday, November 3, 2001.

Accreditation white paper – Leon Thacker and Terry McElwain reported that they had each put together drafts of the white paper, which were distributed to the Executive Board. During their meeting, the Accreditation Committee voted to study the integration of the OIE standards into the AAVLD Minimal Essential Requirements for Accreditation.

Discussion of this recommendation ensued, and while it was determined that a bylaws change would not be necessary to adopt new standards, it would be appropriate to take the recommendation to the House of Delegates, in order to get the entire Association's support. Accredited laboratories will also have to be educated regarding what the new standards will require of them.

There was discussion regarding the need to get input from NVSL since they plan to seek ISO 17025 accreditation. Bev Schmitt reported that the issue of state labs doing sub-contract work for NVSL, should NVSL become ISO-17025 accredited, is quite complicated and could pose a major problem for NVSL and state labs. There was discussion that integrating OIE standards was a way to progress within the current Accreditation process and that if, down the line, ISO 17025 standards were required, the AAVLD Accredited laboratories would be capable of achieving those standards much more easily than with current Minimal Essential Requirements.

A motion to accept the recommendation of the Accreditation Committee to study the integration of OIE Standards into AAVLD Minimal Essential Requirements for Accreditation was made, seconded (Reed), and passed unanimously.

A motion to recommend that the Accreditation Working Group complete the white paper by the winter Executive Board Meeting (2002), and begin integrating OIE standards into the Minimal Essentials, with a goal of completing that process according to the timetable outlined in the white paper, was made (McElwain), seconded (Byrum), and passed unanimously.

Leon Thacker reiterated that activity regarding change, or possible change, to the Accreditation requirements, needs to be very widely publicized to the membership, starting with discussion at the lab director's meeting on November 3, 2001, and including education of laboratories who are going through the Accreditation process now on what the requirements will be like during the next cycle of site visits.

7. NEW BUSINESS

AAVLD Representative to the WAVLD- Konrad Eugster is retiring and was asked by the AAVLD Executive Board to nominate a successor to serve as the AAVLD representative to the WAVLD. Terry McElwain was nominated and has accepted the nomination. A motion was made to appoint Terry McElwain as Dr. Eugster's successor (Ardans), seconded (Byrum), and passed unanimously. Konrad Euguster will send a letter to the WAVLD informing them of the change.

Site for next AAVLD Executive board meeting- Agreement was reached to hold the Winter Executive Board Meeting in Las Vegas in conjunction with the Western States Meeting meeting in 2002; to look into going to the NIAA meeting in 2003; to continue to rotate to the USAHA, Washington, DC meeting every 3rd year so that each executive committee member will get to attend one of those meetings. The Secretary/Treasurer's office will look into a location for the meeting in Las Vegas.

AAVLD Accredited vs. Affiliated – There was discussion as to whether a designation of "AAVLD Affiliated Laboratory" needed to be made in order to clarify the MOU with NVSL. At this time minor changes to the wording of the MOU were made (see above) and the issue of accredited vs. affiliated was dropped.

Day charges for Program registration/Grad students- A motion was made that Annual Meeting registration fees for graduate student/resident members be half the cost of full registration (Blanchard). The motion was seconded (Akey), and passed unanimously. Pat Blanchard will notify USAHA about this at the joint Executive Committee meeting.

There was some discussion regarding the one-day charge for registration which USAHA has initiated. There were no strong opponents of the suggestion, so it will not be pursued.

Bioterrorism Update- John Andrews gave an update of the Bioterrorism Veterinary Medical Diagnostic Lab Network project begun at LSU in the summer of 2000.

- The following goals were set out for the project:
- 1) Establish a prioritized list of the agents designated as bioterroism agents
- 2) Determine what laboratories currently have capabilities to detect these agents.
- 3) Establish SOPs for detection of agents on the list
- 4) Establish SOPs for lab personnel safety
- 5) Organize inter-lab assistance for surge capacity.

The head of this project has relocated and is no longer working on it. There was discussion as to whether AAVLD should assign coordination of this work to a committee, or let the project continue outside AAVLD. The original project proposal included four AAVLD members on the steering committee, but the steering committee has been disbanded.

Barb Powers suggested that it would be worthwhile to have AAVLD involvement in the development of safety procedures if it could help calm the fears of laboratory technicians. Suggestions included appointing a new committee, or reactivating the Emergency Preparedness Committee to work on the project.

Association of Public Health Labs, AAVLD Liaison- Without committing any funds, the Board agreed that AAVLD will appoint a liaison.

ACVP salary survey information- This information was passed out to Board members for review.

Food Safety – Pat Blanchard reported that the Food Safety Committee would like to have membership outside of AAVLD, and that they've requested approval to have individuals who are not AAVLD members on their roster (exofficio). The Executive Board agreed that this was a good idea.

Life membership for past presidents- David Zeman will take this issue to the HOD for consideration.

Other: A motion was made to affirm the USAHA Resolution from 2000 regarding support for NVSL/ARS Master Plan in Ames, IA was made (F. Hoerr), seconded, and passed unanimously.

Next Meeting:

The Winter Board meeting will be held during the week of February 10, 2002. Time TBA. (Post meeting update: The executive board meeting will be at the Gold Coast Hotel in Las Vegas on February 14, 2002 from 1-5pm.)

Meeting was adjourned at 5:21 pm.

Minutes of the AAVLD First House of Delegates Meeting

Hershey Lodge, Hershey, PA Saturday, November 03, 2001 11:15am, Nigerian Room

Call to Order: The meeting was called to order by President David Zeman at 11:15am.

<u>Roll Call</u>: Secretary Ardans called the roll of delegates from the state and provinces, and with 37 delegates present, a quorum for business was declared.

<u>President's Report</u>: President Zeman expressed appreciation to everyone who has been dedicated to organizational efforts in the past year.

Standing Committee Reports and Select Special Committees:

- 1. Accreditation Committee: Leon Thacker presented report. See page 14.
- 2. Awards: Bruce Akey expressed thanks to the members who served on this year's Awards Committee. The awardees will be announced Monday after the plenary session.
- 3. Credentials; JVDI Editorial Board; AAVLD Newsletter, Membership, Web Editor- no report
- 4. Nominating committee- Bruce Akey announced that Willie Reed has been elected Vice-President for 2002, Neil Dyer has been elected North Central representative, and Melissa Libal has been elected South Central representative beginning 2002. He also reported that the nomination process was discussed at yesterday's Executive Board meeting and that a brief SOP was developed to provide guidance to future Nominating Committee chairs (see Executive Board minutes).
- 5. Program Committee- Patricia Blanchard reported that there are 100 papers (12 graduate students) and 16 posters (5 graduate students) being presented at this year's meeting. The plenary session has been moved from its usual time Saturday morning to Sunday morning in order to allow for greater USAHA attendance. Monday will be the first time AAVLD and USAHA have held a joint session, and it will cover the topic of TSE. The 2004 annual meeting site has been selected as Greensboro, NC.
- 6. Publications Committee- David Steffen reported that the committee met yesterday. The past JVDI issues are now on the website, so the new individual passwords will be required to access the website, rather than the old generic logon, effective January 1, 2002. The committee would also like to encourage individuals who are writing their thesis to submit research reviews for consideration to the JVDI.
- 7. Long Range Planning- Willie Reed presented the report. See page 31.

Old Business: There is no old business.

New Business:

- Memorandum of Understanding between AAVLD and NVSL: David Zeman provided a brief history on the MOU and explained that the goal of the agreement is to have a closer working relationship between federal laboratories and state diagnostic laboratories. A motion was made to adopt the MOU as written (T. McElwain), and seconded (B. Akey). There was brief discussion, including a comment emphasizing the importance of including members who do not work in an accredited laboratory. The motion then carried unanimously. Dr. Zeman expressed thanks to all who worked on developing the document.
- 2. Accreditation- David Zeman explained that last year the HOD passed a resolution for the Accreditation committee to look into the feasibility of implementing ISO 17025 standards for laboratory accreditation. Considerable work has been done during the last year in response to this resolution, including: 1)AAVLD met with AALA, the leading ISO accrediting body in North America; 2) AAVLD met with NVSL leaders to find out what the federal labs' future plans for accreditation are 3) AAVLD members attended AALA assessor training 4) AAVLD representatives met with OIE leaders regarding the OIE standards 5)AAVLD representatives met with

other countries who have gone through the ISO 17025 accreditation process. David Zeman reported that no final recommendation has been made, but that work will continue on this issue during the next year.

- 3. Lifetime membership for past Presidents. John Andrews, chair of the Constitution and Bylaws committee, presented a motion passed by the Executive Board in July 2001, granting Past Presidents automatic life membership. This issue was tabled until the Monday HOD.
- 4. Resolution regarding Ames, IA Master Plan. This resolution was presented by John Andrews (see attachment below*). A motion to accept the resolution was made (D. Lein), and seconded (P. Blanchard). There was discussion, including grammatical changes, and the announcement that USAHA will be putting out a similar resolution. The motion carried unanimously, and David Zeman will ensure that the letter is sent appropriately.

<u>Announcements:</u> The next WAVLD meeting will be held in June 2003 in Bangkok, Thailand. More information can be found at <u>www.wavld.org</u>

Next meeting: The next House of Delegates meeting will be Monday, November 5th following the awards presentation.

The meeting was adjourned at 12:07pm by David Zeman.

*Resolution of the AAVLD House of Delegates on the APHIS-ARS Master Plan (NVSL/ARS/CVB) Presented and approved on November 3, 2001.

- Whereas, the United States Department of Agriculture (USDA) has identified the need to replace the outdated and inefficient facilities currently used by the Animal Plant Health Inspection Service (APHIS) National Veterinary Services Laboratories (NVSL), the APHIS Center for Veterinary Biologics (CVB) and the Agriculture Research Service (ARS) National Animal Disease Center (NADC), and
- Whereas, the modernization and facility consolidation outlined in the USDA APHIS-ARS Master Plan is of vital concern and importance to American Association of Veterinary Laboratory Diagnosticians (AAVLD) and the lack of modern facilities jeopardizes the health of the animal populations of North America, therefore...
 - Be it resolved that the AAVLD strongly supports the USDA's APHIS-ARS "Master Plan for Facility Consolidation and Modernization of the APHIS National Veterinary Services Laboratories, the APHIS Center for Veterinary Biologics and the ARS National Animal Disease Center" and recommends the construction, equipping, operation and maintenance of the Ames, Iowa, National Animal Health facilities depicted in the United States Department of Agriculture Master Plan.
 - Be it resolved that the officers of AAVLD shall deliver a copy of this resolution to the Secretary of Agriculture, Congress and the President of the United States.

AAVLD Second House of Delegates Meeting

Hershey Lodge, Hershey, Pennsylvania, November 5, 2001

Call To Order: President Dave Zeman called the meeting to order at 11:40 a.m.

<u>Roll Call</u>: Secretary/Treasurer Ardans called the roll of delegates from the states and provinces. With 30 state and provincial representatives present, a quorum for business was declared.

<u>Passing of Gavel</u>: President Zeman passed the gavel to President-elect Patricia Blanchard who presented President Zeman with a plaque for distinguished service to AAVLD. Dr. Blanchard expressed AAVLD's appreciation to President Zeman for his efforts in developing and completing the MOU with our federal partner NVSL and his efforts in investigating the ISO17025 guide relative to our accreditation process.

<u>Secretary/Treasurer's Report</u>: Dr. Ardans presented the financial status of the association as of September 30, 2001, totaling \$265,040 (checking, CD's, mutual funds combined). Major categories of revenue/expenditures for this past year are as follows: \$55,000 Dues

\$44,000 Organization costs (\$21,000 paid for California staffing)
\$18,500 Exhibitor fees
\$66,800 Registration fees
\$47,000 Meeting costs (A/V - \$11,000; Food - \$17,000)
\$72,000 Journal subscriptions (\$126,000 production cost)

Motion was made (Thacker) to accept Secretary/Treasurer's report, seconded (Lein) and passed unanimously.

President's Report: President Blanchard reported on the following:

- There are several new activities aimed at recruiting more individuals into veterinary diagnostic laboratory medicine. These efforts include an Executive Board approved 50% reduction in registration fee for AAVLD graduate student and residents beginning in 2002; the Pathology committee has launched an initiative to raise funds for pathology trainee travel awards to the annual meeting; and the AAVLD Foundation has launched a program to establish diagnostic laboratory externships for senior veterinary students.
- 2. Two new committees were created in 2001 to address critical issues for AAVLD. The Approved Methods committee is chaired by Frank Galey and composed of the chairs of the various disciplines. The Food Safety committee is chaired by Richard Oberst, Kansas State University. Both committees met for the first time at this meeting.
- 3. The recent events of September 11th and the Foot and Mouth Disease outbreak in England early this year have highlighted the pressing need for AAVLD to take an active role in national veterinary diagnostic laboratory emergency preparedness planning. A database has been developed by Dr. Gary Osweiler with DOE funding to address bio-terrorism agents but plans are in progress to expand it to address other areas of emergency preparedness.
- 4. The Accreditation and Long Range Planning committee requested a QA Managers committee to develop a template of a Quality Manual to meet OIE guidelines.
- 5. Tentative plans for symposia at the 2002 meeting include an Epidemiology committee sponsored symposium on method validation; C.L. Davis symposium in pathology and an anaerobic antimicrobial techniques symposium.
- 6. President Blanchard thanked our sponsors who are a major contributor to the annual meeting funding and requested members fill out the surveys to provide feedback on this years meeting. She also expressed the organizations deep appreciation to Emily Sanson, Sharon Hein and Donna Dare for their tremendous efforts in assisting in all aspects of making this year another success.

Reports of Standing & Select Special Committees:

- 1. Foundation Committee Dr. Gavin Meerdink presented report (page 27).
- 2. Membership Committee Dr. Terry McElwain presented report (page 32).

- 3. Constitution and Bylaws Committee Dr. John Andrews presented report (page 21).
- 4. Financial Advisory Committee Dr. Leon Thacker presented report (page26).

Old Business:

The motion from the previous House of Delegates meeting to grant all past presidents automatic life membership was discussed. Since the by laws state the Executive board nominates members who have made an outstanding contribution to Veterinary Diagnostic Laboratory Medicine, it was felt the de facto granting of life membership to past Presidents was unnecessary. The motion failed.

New Business:

Dr. John Andrews brought forward from the Director's Committee a resolution for consideration regarding the **provision** of non-infectious diagnostic reagents for foreign animal disease testing from USDA to state and university veterinary diagnostic laboratories. After brief discussion regarding wording, passage of the following resolution (as amended below) was moved (Lein), seconded (Akey), and approved.

- Whereas, the movement of numerous animals throughout the United States on a daily basis, while necessary for effective commerce, creates a critical need for the early detection of a foreign animal disease (FAD), and
- Whereas, the early detection of foreign animal diseases may be seriously delayed due to the possible lack of specific and distinct clinical signs that might trigger an FAD investigation and,
- Whereas, state and university veterinary diagnostic laboratories collectively examine daily thousands of animals, specimens and sera from diseased domestic animals and wildlife and,
- Whereas, an effective foreign animal disease surveillance program would be strengthened by the examination of larger numbers of specimens and animals than are currently examined by USDA, therefore
 - Be it resolved that the American Association of Veterinary Laboratory Diagnosticians (AAVLD) strongly urges the USDA to provide standardized validated non-infectious diagnostic reagents for foreign animal diseases to state and university veterinary diagnostic laboratories for use in screening and surveillance with the understanding that any suspect or positive findings by the state and university laboratories would be considered presumptive, be maintained in confidence and would be immediately reported to USDA and specimens immediately forwarded to the appropriate USDA laboratory for confirmation.
 - Be it further resolved the AAVLD strongly urges the USDA to provide validated methods, standard operating procedures and appropriate training for the proper use of the diagnostic reagents and the communication of the results and proficiency testing to ensure the highest quality results.
 - Be it resolved that the officers of AAVLD shall deliver this resolution to the Secretary of Agriculture and the appropriate USDA administrators.

Announcements:

 President Blanchard reported that the USAHA Executive Committee is looking at three sites for the 2005 meeting: Baltimore, MD; Portland, ME; Philadelphia, PA. The two organizations are also looking into identifying two hotels per region (4 regions) to rotate for future meetings. Minneapolis and San Diego are currently likely repeats. Depending on the St. Louis, MO and Greensboro, NC meeting, these could also be repeat sites. Post-meeting Hershey PA was added as another site for consideration for the 2005 meeting.

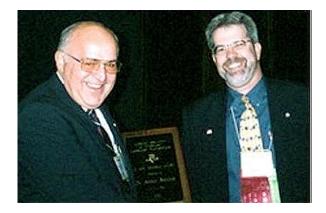
Meeting adjourned at 12:25 p.m.

Awards and Recognition



Dr. Leon Thacker presenting the **AAVLD Foundation funded Graduate Student Presentation Award** to Dr. Christina Wilson of Purdue University for her presentation entitled: Species comparison of the warfarin-sensitive enzyme vitamin K1 2,3-epoxide reductase by C.R. Wilson, G.P. Carlson, J.M. Sauer, and S.B. Hooser.

The **AAVLD Foundation funded Graduate Student Poster Award** was presented to: Dr. Christine Loehr of Washington State University for her poster entitled: Necrotizing intestinal lymphangitis and septicemia due to *Actinobacillus suis* in two foals with congentital hypothyroidism-dysmaturity syndrome by C.V. Loehr, U. Polster, M. Hines, J.L. Oaks, and J.P. Teifke. (no picture available)



The **E.P. Pope Award** was presented by Dr. Bruce Akey to Dr. Arthur Bickford, California Animal Health and Food Safety Laboratory, for his noteworthy contributions to AAVLD and advancement of the field of diagnostic veterinary medicine.

Accreditation Committee

Chair Leon Thacker, November 3, 2001, 8am-1:15pm, Hershey, PA.

All 16 members of the committee were in attendance. The Committee heard accreditation status reports and progress updates from representatives and officials of five laboratories as was previously requested by the Committee.

Assignments for site visits to be made to laboratories in 8 states in 2002 were made and discussed. Because of upcoming major changes in operations, the site visit to the Mississippi laboratory system will be postponed from calendar year 2002 to 2003 with unanimous approval of the Committee in response to a letter received requesting this from the Mississippi Laboratory.

Discussion of the possibility of adding a surcharge to the accreditation fee for laboratory systems with more than one site to review during accreditation site visits ended with favorable general approval. A proposal to establish this practice will be drafted.

Discussion of incorporation of OIE Standards into the AAVLD Minimum Essentials for Accreditation was further pursued. It was unanimously agreed that incorporation of the OIE Standard for Management and Technical Requirements for Laboratories Conducting Tests for Infectious Animal Diseases as written by the Standards Commission of the Office International Des Epizooties into the AAVLD Essential Requirements for an Accredited Veterinary Medical Diagnostic Laboratory should be further studied and pursued for adoption.

It was agreed that the next meeting of the Committee should be in concert with the next meeting of the AAVLD Executive Committee which at the time was tentatively set to take place in LasVegas in February 2002.

AAVLD/USAHA Animal Health Information Systems Committee

Co-chairs: Francois Elvinger and Bruce Akey, November 4, 2001, 1-5pm, Heshey, PA.

Attendance fluctuated between 20 and 40 people with 22 participants (9 of 36 members, 6 participants requesting membership) filling out the attendance sheets provided.

Dr. Elvinger welcomed the participants and gave a brief synopsis of the past year's meeting and activities. The year 2000 resolutions # 1 and 11 were reviewed and the responses by USDA:APHIS:VS discussed. Discussion focused on response to resolution # 11 on evaluation, streamlining and integration of all existing national animal health information and surveillance systems and the support of States for surveillance infrastructure. Questions arose on the adequacy of the response provided by VS, and on the problem of follow-up of resolutions when they are being worked up at VS. It was expected that the report to be released November 15, 2001, from the National Animal Health Safeguarding Review will contribute to enhancement of the national and State side surveillance infrastructure and improve information flow from national agencies to States, animal industries and other stakeholders.

Dr. Nora Wineland (CEAH, Fort Collins) and Dr. Bruce Akey (Virginia Department of Agriculture and Consumer Services, Richmond, VA) presented an update on the status of NAHRS. The NAHRS steering committee had met by teleconference in 4 one and a half hour sessions on September 24 and 25. Nineteen members participated. Five tasks had been assigned in the year 2000 steering committee meeting: the Unified Methods and Rules had been accepted, the training manual completed, the promotional video was to be completed by November, Dr. Torres had presented NAHRS to the National Chicken Council and obtained their endorsement, and a cost benefit analysis was being prepared.

Participation in NAHRS was reviewed. At present 13 States participate every month, with an average monthly participation of 25 States, indicating no increase in average participation since 1999. However, it was noted that the comfort level for participation in contributing States had increased and a record high of 31 states had participated at least once during the year. Some of the non-participating States were contacted or had requested assistance for implementation of reporting to NAHRS. Non-participating States were divided in 3 categories: 1. States in which uncertainties about NAHRS prevented full support by commodity groups; 2. States in which animal health infrastructure was not sufficient for participating States were determined to be the most effective approach for explaining the benefits of participation for those 9 States in which participation was considered controversial by animal industries. These contacts need to be supported by appropriate and effective informational materials, a clear statement of need, cost

and benefits of participation or non-participation. CEAH proposed to seek additional support to those 7 States in which infrastructure and resource constraints prevents continuous participation. Steering committee members from surrounding participating States were asked for support. The balance of non-participating States (n=6) does not consider participation a priority. A few of those States, although they do not have numerically significant animal industries, need to be encouraged to participate to guarantee completeness of the reporting system.

Disease reporting and data quality issues were discussed commodity by commodity: Ovine /caprine: lack of case submission to diagnostic laboratories were considered the main deficiency in generating health status information. Submission of cases to out of State diagnostic laboratories may keep diseases under reported, and a mechanism was requested to provide diagnostic laboratory information to the State Veterinarian from originating States. Poultry: to alleviate concerns on misreporting of disease, it was proposed to investigate the possibility of submitting poultry disease information to a central non-USDA database for validation prior to submission to CEAH. Aquaculture: underreporting of disease was considered and all potential sources of information need to be reassessed. Bovine: sources of information need to be re-evaluated as some diseases known to occur regularly do not appear in some monthly reports. Enrollment of major cattle producers is a priority. Porcine: as for bovine. In addition, needs to reevaluate case definitions, that may be too stringent for definitive diagnoses, and some States do not report on presumptive disease criteria for example for PRRS. Questions arose how the NAHRS data corresponds to data presented to OIE for the Annual OIE report, and how the lack of complete State information will affect the United States status regarding fulfillment of international trade requirements for certain commodities.

During this presentation a draft of the NAHRS video was presented. This draft had also been presented in the morning to the National Assembly of Chief Livestock Health Officials. Several editorial changes were proposed, notably emphasizing the mandatory conduit of information through the State Veterinarian's Office (flow graphic), and emphasizing the scope and proposed uses of the information for the audience. It was also proposed to consider reediting for a broader national and international audience once all States are on board.

Dr. Beth Lautner, National Pork Board, Ames, IA, and Dr. Bruce Akey, Virginia Department of Agriculture and Consumer Services, Richmond, VA, presented overviews of the recent USDA Animal Health Safeguarding Review conducted by the National Association of State Departments of Agriculture (NASDA) at the request of the USDA: APHIS. NASDA set up four committees, Domestic Surveillance and Monitoring, Exclusion Activities, International Information and Domestic Response, to evaluate the effectiveness of current USDA Veterinary Services efforts to safeguard US animal health. Each committee conducted extensive interviews of USDA, State and local staff and visited several major US ports of entry for animals and animal products. A Review Committee synchronized and collated the committee reports into a final report with specific findings and recommendations from each of the committees. The USDA has established an implementation team that includes not only USDA personnel but also members of the Animal Health Safeguarding Review committees, to ensure the recommendations are translated into actions.

Dr. John Wiemers, USDA National Animal Identification Coordinator, presented the Animal Identification – Disease Reporting Interface. The development of an animal identification system has to occur one piece at a time. Standards are set in the first phase: what are standards for numbering systems, premise identification, identification devices. These standard numbers will be associated with the standard devices and standard premises identification in Phase 2. Animal information (species, breed, gender birth date) is attached to that standard ID in Phase 3, and animal health events (type – vaccination, testing, certification, disease; dates) will be attached in Phase 4. Tracking of animal movement from premises of origin through the last premises to slaughter or other disposal will be implemented in the final Phase 5. This system is to evolve to allow complete tracking with information recorded at all points. Present identification priorities are inclusion of adult animals of all species, "high risk" animals; animals tested or vaccinated and/or certified for APHIS programs, and other animals targeted through risk or cost/benefit analyses. The proposed standard for visual ID is the American Identification Number (AIN), a 12 character alpha-numeric field which corresponds to the Canadian system. Electronic numbers will be ISO standard. The discussion that followed the presentation emphasized the need for Veterinary Diagnostic Laboratory participation in design and implementation of this animal identification system.

Dr. Thomas McGinn, Assistant State Veterinarian, North Carolina Department of Agriculture, Raleigh, NC, presented a report entitled "Geographic Information Systems (GIS) in Monitoring of Animal Populations and Reporting of Disease". Starting in 1988, NC initiated a system to map all livestock operations in the State. System development and implementation was greatly enhanced with the hiring of a professional GIS Analyst, familiar with the use of ARCGIS software. To date, more than 15,000 premises are included in the database, and all premises have been located with global positioning units. The database is used as a resource for local and regional disease management, emergency response, dissemination of information, disease surveillance and eradication (PRV) and epidemiologic investigation. In case of disease outbreak, trucks (feed, animal carriers) can be routed such that disease

spread can be limited; suitability of soils and height of water table can be determined to locate appropriate sites for burying animals. Topographic maps (drainage) and weather maps (prevailing winds) can be produced to evaluate potential for spread of disease agents; associations between production performance and density of production can be determined. The system is such that producers can receive maps by email or fax showing location of farms infected with contagious agents and nearby farms, as soon as a disease agent is detected at the diagnostic laboratory, and disease exclusion and control zones can be determined within minutes of diagnosis. Plans are to use ARCIMS to create website (limited access) for producers to see diagnostic laboratory information from their premises tied to other data layers in map form. Internet mapping, wireless access/technology, satellite imagery, and novel tools for information dissemination are planned as well. Field personnel and diagnostic laboratory submission information is used to keep data on premises current.

Dr. Michael David, National Center for Import and Export, Riverdale, MD, reported on "List B Diseases That Have Been Used as Barriers to the Flow of Animal Products". Safeguarding global animal health has been delegated by the World Trade Organization to the Office International des Epizooties. One hundred fifty-eight countries, including the United States since 1976, are members of the OIE. The OIE collects and disseminates information on the health status of animal populations in member countries, coordinates research activities, harmonizes health standards for trade of animals and animal products, and provides guidance for disease control and eradication.

Disease reporting requires transparency, and infrastructure for determining and reporting animal health status has to be well defined. The OIE has divided animal diseases in two categories, presented in list A and list B of reportable diseases. List A diseases are highly contagious and have the potential for significant negative impact on animal and public health, animal populations and trade. List B diseases are transmissible diseases of socio-economic and / or public health importance in countries and which also are significant in the international trade of animals and animal products. Countries that participate in international trade have to provide information on outbreaks, immediately for List A diseases, in regularly scheduled reports for List B diseases. The reported information is used in bilateral negotiations with importing and exporting countries. List B diseases, notably IBR and leptospirosis in cattle, leptospirosis and scrapie in sheep as well as others have been raised by US trading partners as trade barriers. It is imperative that the US maintains the necessary monitoring and surveillance systems to be able to counter such trade restrictions. Using data from such systems, the US has been successful in removing trade restrictions on exports to countries in Central and South America, the Carribean and others. Under the WTO, a country cannot make claims of being negative for an animal disease unless it can demonstrate the required transparency (surveillance, laboratory capacity and infrastructure). Although challenges to claims of negative disease status may take 2-3 years to be decided by the WTO, the country making false claims seriously damages it's credibility and will suffer sanctions in the international market.

Dr. Mark Teachman, USDA:APHIS:VS, Riverdale, MD, presented "Animal Disease Reporting Networks in the US and Emergency Response: The USDA Animal Health Emergency Management Reporting System (EMRS)". This system is being developed to meet the vast and varied information management needs during an emergency disease outbreak. First written as a Lotus Notes application, it is being converted to an internet web-based application using Oracle database software. This will allow access to the system by any web browser and will enable links with the USDA Generic Database and eventually other federal, state and local databases as well. The system consists of two modules, one for Task Tracking and one for Administrative Tracking. The Task Tracking module will have subsections dealing with all of the task activities that go on during an outbreak, investigations, tracing animals, vaccination, cleaning and disinfection and etc... The Administrative Tracking module is designed to track information on resources, assets and finances and will be compatible with the Federal Emergency Management Agency (FEMA) system. Input into the system is based on interlinking forms accessible either via the web or by submission of paper documents and reports or notifications will be deliverable via multiple modalities (phone, fax, e-mail). The system will also contain integrated Geographic Information System (GIS) mapping capabilities to facilitate outbreak investigations. USDA will begin transitioning current investigation reporting to this system in the near future with the first formal training on the new EMRS beginning in December, 2001 and a second training session expected in March, 2002. All Foreign Animal Disease Diagnosticians (FADDs) will receive this training as a start.

At the end of the committee meeting the USAHA Year 2001 Resolution #1 concerning support for the USDA Master Plan to upgrade and replace facilities at the National Veterinary Services Laboratory and National Animal Disease Center in Ames, IA was reviewed. The committee approved this resolution with the following change: "USAHA encourages Congress to provide mandatory and accelerated funding for the Master Plan".

Approved Methods Committee

Chair Frank Galey, November 1, 2001, 12:30-3:30pm, Hershey, PA

There were approximately 10-15 members in attendance (bacteriology comm. not represented)

Scope and Purpose: Discussion of whether import/export testing and tests of public health significance would be the only focus. The group felt they should not be.

Toxicology uses AOAC that has five levels of validation: level 1- full validation taking years to complete and very costly includes cooperative studies and international recognition of the method. Level 2- collaborative studies but not necessary to have international protocol; Level 3- primarily EPA/FDA type testing with shared SOPs and multi-lab validation; Level 4- inhouse validation; and Level 5- no validation. Most participants stated testing in their disciplines was levels 3 and 4. Several stated, however, the less stringent maintenance of documents allows the test method to change with no re-validation. Molecular techniques are generally not validated (level 5) or have limited in-house validation. Some variations of approved FDA methods are also used but have not themselves been approved. In toxicology, test validation ranges from level 2 to level 5. NCCLS in 1995 put forth a molecular diagnostic methods approval document. In NCCLS, protocols are accepted via consensus process with minimum QA/QC guidelines included.

One action of the committee could be to develop criteria and template for submitting tests for approval based on in-house validation and on multi-lab validation since these are currently the most common method validation levels. Discussion on whether the committee should develop a standard format for SOPs.

Proficiency testing: in Australia each laboratory takes a different test and provides proficiency testing for the other labs. VLA (in PEI) provides proficiency testing for a number of clinical pathology and some serum toxicology. The toxicology laboratories have tried proficiency testing with individual labs being responsible for different tests and find it to be extremely costly. Bacteriology proficiency testing for Johne's is now sent by NVSL and a number of proficiency tests are also done for regulatory serology by NVSL. Proficiency testing would require a reference lab to validate the expected result. Obtaining comparable results even using different methodology would seem more important than everyone having to use the exact same method.

Definition: Methods—a series of procedures that lead to an interpretive result. Related procedure—individual steps needed to isolate or identify an organism or agent. Standard method—recognized by reputable body as being the standard, i.e. international, national (i.e. FSIS, OIE, FDA, EPA, AOAC. etc.). The committee discussed definition of terms like validated, standardized, accepted. The serology committee has over the last two years written a glossary of terms which will be available on the website in December (per Peter Wright, chair of Serology).

As each discipline varies with the types of methods used they would each need to define and approve validation criteria for methods. The validation documentation for validating a test should include whether it is fit for its intended purpose. Cost of validation will continue to be a barrier. In serology, since large volumes of tests with numeric values or positive/negative results are the end product, their validation is easier to define than perhaps bacteriology or molecular techniques. OIE has no standards for molecular technique validation and is struggling with this issue. Richard Jacobson's chapter gives an excellent review of methods of validation.

Priority. Does each discipline have priority of tests they would like to get approved and is the end result of the test simply to provide a numeric value or to provide a diagnostic interpretation?

The committee decided a list of questions should be taken back to each discipline for further input before the committee took further action. Each discipline representative would take the issues back to their respective disciplines and report back to the chair.

AAVLD Methods Committee would like input on these questions:

- 1. Do we want AAVLD approved methods?
- 2. If so, what tests should be approved (priorities)?
- 3. What should be the general process for approval?
- 4. Who should approve the methods?
- 5. Should there be different levels of validation?
- 6. What other organizations approve/validate methods in your discipline? What are their strengths/weaknesses?
- 7. Give examples of validated tests in your laboratory

AAVLD/USAHAAquaculture Committee

Co-chairs: Randy White and Scott LaPatra. November 4, 2001, 1:00 pm to 4:05 pm, Hershey, PA.

Dr. White opened the meeting with an approval of the meeting agenda and introductions of all attendees. There were 24 guests and members in attendance.

- 1. Dr. White discussed the acceptance and endorsement of the VS Aquaculture Strategic Plan by this committee. The discussion of this document took place via email this year. Dr. Otis Miller asked this committee to review this document and endorse or reject this plan. This committee did approve this plan by email discussion with 19 members voting; 14 voted positive and 5 abstained.
- 2. Discussed the resolution approved by this committee last year that was entitled, Significance of Aquatic Animal Pathogens in Aquaculture Effluents. Dr. Scott LaPatra initially brought this resolution forward at the committee meeting in 2000. Dr. White carried this resolution forward to executive committee of AAVLD. Dr. LaPatra briefed the committee about this resolution and Dr. White informed the committee of the response by the AAVLD executive committee which chose not to endorse this resolution. This resolution will also be sent to the USAHA executive committee by Dr. LaPatra.
- 3. Update of new and emerging disease in aquaculture from the different regions. Dr. White discussed the presence of Large Mouth Bass Virus (LMBV) in northeastern Indiana. Dr. LaPatra discussed issues on the west coast such as Koi herpesvirus, biologics and vaccine production. Dr. Syska mentioned that they had also reported LMBV in Missouri. Dr. Don Hoenig reported on Infectious Salmonid Anemia in Atlantic salmon in Maine.
- 4. Presentation by Dr. Otis Miller about national aquaculture issues including: National Animal Health Certification/Inspection Program; National Aquatic Animal Health Certification and Inspection Program; Infectious Salmon Anemia as a Foreign Animal Disease and the Joint Subcommittee on Aquaculture Task Force. Following Dr. Miller's presentation, he answered pertinent questions and there was a short discussion on some issues.

The next business items included passage of the following resolutions available on the USAHA website: www.usaha.org:

- 1) USDA ARS/APHIS master plan.
- 2) Development of a National Aquatic Animal Health Management Plan
- 3) Control Strategies for Infectious Salmon Anemia in the Northeastern United States

The last business item discussed was an update of the collaborative approach by the American Fisheries Society, Fish Health Section and the United States Fish and Wildlife Services for a procedural manual for aquatic animal pathogens. Dr. LaPatra assured the committee that a draft of this document would be available for all appropriate stakeholders in the immediate future.

Bacteriology Steering Committee

Co-chairs: Lorraine Hoffman and Mitsi Libal, November 3, 2001, 8:00pm-10:00pm, Hershey, PA.

Present: Libal, Hoffman, Love, Tewari, (Fales-new). Absent: Songer, Maddox, Wu. Guest: Hyatt.

- 1. Subcommittee Reports:
 - A.) Dr. Love presented subcommittee on BMM reports (see attached).
 - B.) Dr. Tewari presented subcommittee on AST report (see attached).
 - C.) No report from the Anaerobe Committee was presented (see attached written report)
- 2. Update on QA/QC Guidelines:

Committee agreed to redistribute the document entitled "Suggested Bacteriology/Mycology QA and QC Guidelines for AAVLD-Accredited Veterinary Diagnostic Laboratories" to bacteriology labs for comment.

The 7 questions (pg 17) presented by Pat Blanchard from the Approved Methods comm. were reviewed.

- 3. Subcommittees and their goals were reviewed.
 - A.) Recommended separate subcommittee for check test.

- B.) Recommended reinstating Mycobacteriology subcommittee (Dr. Hyatt from Colorado State Diagnostic Lab offered to serve as head) with short term goal of updating members on current Johnes culturing methods and culturing of atypical *Mycobacterium spp*.
- 4. No decision was made regarding preconvention symposium.
- 5. Dr. Carol Maddox was elected to replace Dr. Lorraine Hoffman. Dr. Libal agreed to one more year.

Bacteriology, Mycology and Mycoplasmology Subcommittee

Co-Chairs Carol Maddox and Brenda Love, November 2, 2001, 8:00am-10:40am, Hershey, PA.

The Bacteriology Quality Assurance Check Test Results were returned to participants. The graders, as listed below, presented an overview of the participant's performance and identified several points of concern.

- Case # 1 Moraxella (Neisseria) caviae in a canine Carol W. Maddox
- Case # 2 *Vibrio cholera* from bovine Beth Henricson
- Case # 3 Salmonella C1 from bovines Kathy Strelow
- Case #4 Methacillin Resistant Staphylococcus aureus in Equines Mitzi Libal
- Case # 5 Pythium sp. in a canine Karen Post.
- Case # 6 Rhodococcus equi in goats Deepanka Tewari

There was continued discussion relative to scoring the tests and how best to assist the labs with consistently poor performance. Some compromises were discussed at a working dinner, regarding feedback to the participants, their administrators, and accreditation. The majority of the participants and the graders felt that none of the submissions were too highly pathogenic potentially zoonotic agents to be distributed in the check test despite several complaints from some participants. It is expected that all specimens are processed under appropriate BL-2 conditions. The 6 graders plus the Co-chairs felt that there should be specific QA/QC or methodology evaluated by the cases selected, ie susceptibility adherence to NCCLS, compliance with OIE standard protocols, etc. Four such cases would be graded on a 4 or 5-point scale so that there would be some means to correlate the overall performance consistency of the participants while two additional cases would be designed as more challenging learning experiences to stretch the capabilities of the labs. It was suggested that the grader's comments be returned to the participants along with information indicating how their performance compared to that of the other participants. Graders would identify themselves and offer helpful suggestions, references and/or other resources to assist the participants in improving their performance. A letter will be composed to advise laboratories that had consistently not met the average performance criteria of the group. The letter will offer the assistance of the graders in identifying means to improve their performance. Another suggestion was to request feedback from the participants on changes, improvements they may have implemented as a result of check test performance comments, etc.

Gratitude was expressed for the efforts of Linda Tucker-Schroeder of NVSL, for preparing and distributing the cultures for the check test.

Volunteers for graders of next year's check test were: Doreen Hyatt of CSU, Karen Post of NCDA/Rollins, Lorraine Hoffman of Iowa State University, Brenda Love of PSU, Mitzi Libal of TVMDL, and Beth Henricson of the VA Department of Ag.

In response to committee member interest in the Antimicrobial Susceptibility Testing of anaerobes, Jenny Lorbach of Trek/Sensititre presented an overview of methods for AST of anaerobes and the specific NCCLS guidelines in Document M11-15. Both agar dilution and MIC techniques were presented. Her presentation emphasized the importance for standardization and QA/QC even more stringently with anaerobes. Copies of her presentation are available from Jenny by E-mail.

At the request of Pat Blanchard on behalf of the AAVLD Approved Methods Committee, the groups' response to the questions posed in the Approved Methods committee report (pg 17) were sought.

Most of the group felt that we should utilize existing GLP policies, much as we have adopted NCCLS standards, and the consensus was that we should adopt the OIE standards. However, it was also emphasized that we need to continue to collect data on methods we deem to be superior to accepted OIE standards so that they may be validated and updated. The group felt that we should start the process with those existing guidelines used for import/export as we may have already implemented these in our labs or are striving to meet international standards for such tests. Bev Schmitt from NVSL is on the OIE Standards Committee for Bacteriology and can comment on the chapters under consideration and help heighten our awareness of action on these protocols. The need for our

comments on these protocols was emphasized. It was also recommended that we have a representative of the Bacteriology Subcommittee on the AAVLD Approved Methods Committee (Beth Henricson was nominated). Validation of the tests would be in accordance with accepted statistical methods for each protocol.

Dr. William Fales was nominated as the co-chair to replace Carol Maddox whose term ended. Brenda Love will continue as co-chair.

The reports of the Food Fish and Companion Animal Working Groups on AST and Selective Reporting of AST results were presented in the AST Meeting due to time constraints. A summary of the food fish guidelines was presented by Beth Henricson and Mitzi Libal on the few FDA approved applications of antimicrobials for fish. A need for NCCLS standards was emphasized. Dr. Thomas Keefe was unable to attend and present the results of his and Spencer Jang's efforts on companion animals reporting. Carol Maddox briefly discussed their suggestions and viewpoints on selective reporting, and will gladly E-mail their full text including several useful tables listing contra-indications, or last human drug consideration for suppression.

Antimicrobial Susceptibility Testing Subcommittee

Co-chairs Drs. Ching Ching Wu and Deepanker Tewari, November 2, 2001, 1:00-3:00pm, Hershey, PA.

This subcommittee is and will endeavor to keep the bacteriology diagnostic community informed of any new developments in testing and will also try to provide updates on release of the information about new drugs or resistance issues that have implications for susceptibility testing.

Dr. White, CVM-FDA, presented two talks, one for Dr. Robert A. Walker, who was unable to attend the meeting this year. Dr. Walker's talk presented by Dr. White covered salient features of antimicrobial susceptibility testing methods in diagnostic laboratories. The highlight of this talk was that a new NCCLS document, NCCLS-M31A2, is due for a release in the year 2002. This document will have some updated information on testing, reporting and quality control for susceptibility testing. To use NCCLS approved criteria; a laboratory should be following NCCLS recommended procedures.

Dr. White's second talk focused mainly on resistance to antimicrobials for the organisms recovered from the raw meat. Currently, there is a lot of focus on studying emergence of antimicrobial resistance in food producing animals. It is considered by some that this resistance can be transferred to humans. Dr. White's talk addressed this issue by studying presence of resistance to antimicrobials for *Salmonella* that was recovered from ground chicken, beef, turkey, and pork purchased at the supermarkets. The data suggested that about 20% of the sampled meat was contaminated with salmonellae belonging to several different serotypes including *S. agona* and *S. typhimurium*. Some of these were isolates that were found to be resistant to a variety of antimicrobials including the third generation cephalosporins. This resistance in some cases could be tracked to presence of gene cassettes or integrons. Main implications of his study are prudent use policy for antibiotics is essential. Veterinary diagnostic laboratories can play a large role in this by adhering to NCCLS reporting standards for appropriate species thus providing needed checks and balances.

A talk given by Dr. Tewari for Dr. Wu provided an update on the pilot study for developing a monitoring system that has received primary funding from AVMA. A system has been developed to collect and test gram positive and negative organisms for antimicrobial susceptibility from diagnostic cases for bovine, equine, porcine, canine and avian species. For some organisms, the set target of 30 isolates/organism has been harder to reach and these include *A. pyogenes* for bovine, *Enterococcus* spp in canine, *Pasteurella multocida* and *Salmonella* spp in poultry. Testing has been completed in some cases and the future goal is to extend this study. Other diagnostic labs were encouraged to call or email Dr. Wu at wuc@purdue.edu for participation details.

Finally, the session was open for general business and other discussions. Dr. Carol Maddox talked about collecting information on species-specific use of antimicrobials in the veterinary diagnostic laboratories. Aim is to compile a list of commonly used antimicrobials for specific species and monitor. Among the groups that were created last year Aquaculture and Canine working groups have provided some information for comment.

Anaerobic Infections Subcommittee

Chair: Glenn Songer, Novermber 2, 2001, 10:40am-12:10pm, Hershey, PA.

1. Dr. Karen Post spoke about the establishment of QA/QC guidelines for anaerobic microbiology in the veterinary diagnostic laboratory, based upon the work of a subcommittee consisting of Drs. Post, Fales, and Donohue. There was general approval of the document and it will be presented to the AAVLD officers for possible adoption.

2. Dr. Mike Yaeger presented the results of his work on *Clostridium difficile* infections in neonatal swine. The extensive sampling and diagnostic testing over the past year, combined with the findings at other sites, support an important role for this organism in neonatal enterities in pigs.

3. Dr. Tom Besser made a presentation on acute death in dairy cattle, the syndrome referred to as hemorrhagic bowel syndrome or jejunal hemorrhage syndrome. Most active diagnosticians in the audience had had experience with this condition, and Dr. Besser's talk provided focus for further characterization of cases and possible confirmation of etiology.

4. The Subcommittee discussed the desirability of a workshop on antimicrobial susceptibility testing of anaerobic bacteria. Attendees and members favored the idea, which will be easier to implement at a future meeting closer to the West coast, or at least in a location less remote than Hershey.

5. It had been proposed that the subcommittee be melded into the subcommittee on Bacteriology and Mycology. Comments from subcommittee members and attendees suggested lack of enthusiasm for this idea. On the other hand, attempts to appoint a new chairperson for the subcommittee were not successful, although the group recommended one individual who was not in attendance. Given that the idea of combining the meetings of the subcommittees is still alive (as judged by conversations with AAVLD officers), a new chair has not been identified.

Constitution, Bylaws and Resolutions Committee

Co-chair: John Andrews. November 2, 2001, 5:00pm, Hershey, Pennsylvania. There were two members and no guests present.

There were five discussion items.

- A request for opinion and clarification from the AAVLD Executive Board regarding a need for a By-Laws change to define AAVLD "Accredited" versus AAVLD "Affiliated" Veterinary Diagnostic Laboratories. This issues was raised because of an MOU that was being written between NVSL and AAVLD. The issue was resolved by the AAVLD Executive Board and the Constitution, By-Laws and Resolutions (CBR) Committee did not take any action other than to concur with the Executive Board's action. If the Executive Board feels it is necessary to define the above terms in the By-Laws, that action will be considered at a later meeting.
- 2. At the July meeting of the AAVLD Executive Board, a motion was made and approved unanimously to waive the membership dues for all past-presidents of the AAVLD as a reward and recognition for their service to the organization. According to the By-Laws this action is a de-facto granting of "Life Membership" (see Article IX Membership and Dues, Section 4. Life Membership) to those individuals who have served in the office of President of the AAVLD and further, according to the By-Laws this action must be approved (either on an individual basis or as a "group") by the House of Delegates.
- 3. An opinion of the CBR Committee was requested by the Executive Board regarding the approval process of AAVLD Accreditation standards. As the By-Laws now state, in Article VIII, Section 2., "The Accreditation Committee: It shall be the duties and responsibilities of the committee to: a. Develop and periodically review procedures and criteria for the accreditation of veterinary diagnostic laboratories."

Therefore, it was the opinion of the CBR Committee that although it is not required, it is, and has been the practice of the organization to have all changes in the AAVLD Accreditation process including the "Minimal Essentials" or standards used

for the Accreditation process to be reviewed and approved by both the AAVLD Executive Board and the House of Delegates and that if a formal change in the By-Laws to reflect this practice is needed, the committee will consider such a proposal and facilitate its presentation to the Executive Board and the House of Delegates.

- 4. A Resolution from President Zeman regarding support of the modernization plan for the Ames, Iowa USDAAPHIS-ARS facilities was considered. That resolution was subsequently presented to the House of Delegates (HOD) on Saturday, November 3.
- 5. A Resolution from the Director's Committee regarding the provision of non-infectious diagnostic reagents and standard operating procedures for foreign animal diseases testing to university and state veterinary diagnostic laboratories from USDA was considered and subsequently presented to the House of Delegates (HOD) on Monday, November 5.

Enteric Diseases Committee

Chair: Dr. Gerald E. Duhamel, November 2, 2001, 3:00-5:00pm, Hershey, PA.

There were 12 members and 22 guests present.

The current membership list was circulated along with a sign up sheet for any new members with an interest in serving on the committee. Twelve existing members were present and 22 new members were added to the existing list for a total of 76 prospective members.

Dr. David Francis from the Department of Veterinary Science at South Dakota State University, Brookings presented an update on porcine *Escherichia coli*.

Twenty years ago, porcine colibacillosis was largely a disease of neonatal pigs, but now appears predominantly as a postweaning condition. Changes in management practices, including widespread use of *E. coli* vaccines have substantially altered the distribution of disease in the swine population, and changed the prevalence of pathogens responsible for the disease. Formerly enterotoxigenic *E. coli* strains expressing fimbrial adhesins 987P and K99 were frequent contributors to the disease, and strains capable of causing edema disease were quite rare. Strains possessing genes for the expression of 987P have nearly disappeared, and strains expressing K99 are uncommon. Strains containing genes for Shiga-toxin 2e, the causative factor of edema disease has become quite common. Strains possessing genes for the more recently discovered fimbria, F18, were likely rare 20 years ago, but may well become the most common type within a few years. Addressing the current conditions with regard to colibacillosis will require the development of new *E. coli* vaccines targeted at prevelant pathogens and suitable for weaned pigs. Alternatively, the new disease conditions could be managed through selective breeding for disease resistant stock. A modification in management practices, including the young pig diet, conditions of pig housing and mingling may also prove useful in reducing risk of postweaning colibacillosis.

Kris Fairbanks from Rural Technologies, Inc., Brookings, South Dakota presented an update on diagnostic applications of bovine coronavirus-specific BC6-4 monoclonal antibody.

Monoclonal antibody (mAb) BC6-4 is a murine IgG1 isotype directed against the nucleocapsid protein of bovine coronavirus (BCV) ATCC VR-874. The mAb BC6-4 recognizes enteric coronavirus infections and the application for use against bovine respiratory coronavirus is currently under investigation. Diagnostic tests using mAb BC6-4 include indirect fluorescent antibody and immunohistochemistry. The mAb BC6-4 is available as ascites, FITC conjugated or biotinylated from Rural Technologies, Inc.

Dr. Gerald E. Duhamel from the Department of Veterinary & Biomedical Sciences at the University of Nebraska-Lincoln presented an update on application of BC6-4 monoclonal antibody (mAb) to immunohistochemical (IHC) detection of bovine coronavirus (BCV) in formalin-fixed, paraffin-embedded tissues.

Preliminary studies with the mAb BC6-4 and IHC staining of formalin-fixed, paraffin-embedded intestinal specimens obtained from a gnotobiotic and a conventional calf infected with BCV revealed specific staining by heat-mediated antigen retrieval but not by protease digestion. The mAb BC6-4 specifically stained BCV antigen in formalin-fixed, paraffin-embedded intestinal specimens after heat-mediated antigen retrieval in 10 out of 10 and 11 out of 11 experimentally-inoculated gnotobiotic and conventional calves, respectively. Specific staining of BCV antigen also was found in sections of upper respiratory tract taken from 5 out of 7 gnotobiotic and 4 out of 4 conventional calves examined. Although there is a good correlation between positive staining of BCV antigen in experimentally-inoculated calves, only two different strain of BCV were examined in these studies. Review of records of BCV antigen staining by IHC at the Nebraska Veterinary Diagnostic Laboratory System from fiscal year 1999 to 2001 revealed 42% (35) positive results from a total of 84 calves examined. Negative results with IHC staining of BCV antigen in tissues obtained from field cases may be attributable to absence of the antigen, however, because the specificity of the mAb BC6-4 is unknown, the lack of reactivity in some cases might be attributable to antigenic variation among BCV field isolates. Alternatively, tissue autolysis and advanced

disease with sloughing of infected enterocytes might be responsible for some of the negative field cases. Although additional comparative studies with other methods are needed, it appears that IHC detection of BCV in formalin-fixed, paraffin-embedded tissues using mAb BC6-4 is a useful adjunct to routine diagnosis of enterocolitis caused by BCV infection.

Dr. Chitrita DebRoy from the Department of Veterinary Science, Wiley Laboratory at the Pennsylvania State University, University Park presented an update on the Gastroenteric Disease Center.

The Gastroenteric Disease Center (GDC) formerly called the *E. coli* Reference Center, is the largest repository for *Escherichia coli* strains in North America. The center has a collection of about 47,000 *E. coli* strains collected over the last thirty-five years. The collection comprises of 30% strains of bovine origin, 23% avian, 17% porcine and 14% from humans. These strains are used for epidemiological studies, determining the trend of antimicrobial resistance patterns in different hosts over time, relatedness and evolution amongst the strains. The GDC provides services to veterinarians, clinical and diagnostic laboratories, hospitals, research institutions, government agencies and private enterprises. GDC performs O and H serotyping of *E. coli* isolates and detects the presence of virulence factors responsible for pathogenesis of the strains. Presence of more than twenty genes that encode for toxins and fimbrial adhesion factors in *E. coli* are examined by using Polymerase Chain Reaction (PCR) to identify the pathogenic isolates. GDC has been involved in surveillance studies in collaboration with the American Meat Institute to determine the prevalence of *E. coli* O157 in hide samples collected from twelve meat plants from all over the nation. GDC also determined the presence of enterotoxigenic *E. coli* in geese fecal matter in parks and recreation centers in seven states in the U.S. in collaboration with USDA. Research efforts have focused on antimicrobial resistance patterns among *E. coli* and *Salmonella* strains isolated from avian species, calves and swine. GDC is developing new and improved diagnostic tests for pathogenic *E. coli* strains, as well as for other food borne pathogens such as *Salmonella, Listeria, Campylobacter* and *Staphylococcus*. GDC seeks to maintain and enhance the services offered by the Center by incorporating new tests for detecting pathogenic bacteria associated with different hosts.

Dr. Gerald E. Duhamel from the Department of Veterinary & Biomedical Sciences a the University of Nebraska-Lincoln presented an update on laboratory and clinical findings in dogs with colonic spirochetosis (CS) caused by *Brachyspira pilosicoli*.

Brachyspira (formerly *Serpulina*) *pilosicoli* is an emerging cause of colitis in a broad range of hosts. The disease has economic importance for the pig industry, however, lesions consistent with spirochetal infection have been recorded in humans and non-human primates, dogs, and guinea pigs. The infection also has been found in wild opossums, domestic chickens and several species of wild, zoo and game birds. In addition to gnotobiotic and conventional pigs, laboratory mice and one-day-old chicks have been widely used as animal models to study the mechanism of infection and disease caused by *B. pilosicoli*. In all affected hosts, the disease is characterized by spirochetal colonization of the cecal and colonic mucosae followed by epithelial cell attachment, invasion and damage resulting in inflammation.

Phenotypic and genotypic analyses of a collection of weakly beta-hemolytic intestinal spirochetes isolated from dogs in the United States (n=20), Canada (n=1), Western Australia (n=7), Sweden (n=8) and Germany (n=1) showed only two groupings; hippurate positive and *B. pilosicoli* 16S rRNA-gene PCR positive (n=17) and hippurate and PCR negative isolates (n=20). Cellular fatty acid methyl ester analysis of 11 *B. pilosicoli* and 9 non-*B. pilosicoli*, including some putative "*B. canis*" isolates confirmed the clustering of each species in separate phylum. These results were in agreement with previous ribotyping and multilocus enzyme electrophoresis studies of canine intestinal spirochetes.

Review of available clinical history revealed that dogs with *B. pilosicoli* generally were less than a year old and often had a history of chronic mucoid diarrhea suggestive of giardiasis. Conversely, most dogs with "*B. canis*" were from animal shelters and were healthy at the time of sampling.

It is known that pigs mono-infected with *B. pilosicoli* can recover within 6 to 7 weeks post-inoculation, however under field conditions chronic diarrhea and concurrent bacterial, viral or parasitic infections appear common. It is likely that dogs with chronic diarrhea and *B. pilosicoli* have mixed infection. Mature healthy dogs also can shed *B. pilosicoli* in their stools, and may be subclinical carriers that can transmit the disease to susceptible dogs.

Direct examination of impression smears of stools or mucosal scrapings by dark field, phase-contrast microscopy or after staining with the Diff Quick, Gram or Victoria blue 4-R methods are widely used for demonstrating the presence of spirochetes in the clinical laboratory. Isolation of weakly beta-hemolytic spirochetes from intestinal specimens by anaerobic culture on selective agar media requires further identification using hippurate hydrolysis or amplification of *B. pilosicoli*-specific 16S or 23S rRNA sequences by PCR.

Correlation of histopathological changes in colonic tissues of dogs with demonstration of intestinal spirochetes by bacteriological culture (n=7), immunohistochemical (IHC) staining with the *Brachyspira* flagellar protein FlaB-specific monoclonal antibody 7G2 (n=9) and fluorescent in situ hybridization (FISH) with oligonucleotide probes targeting either Eubacteria 16S rRNA, *Brachyspira* genus 23S rRNA, *B. pilosicoli* 16S rRNA, or *B. hyodysenteriae* 23S rRNA specific gene sequences and confocal microscopy revealed *B. pilosicoli* associated with CS in four dogs and *B. canis* in three dogs with normal colons. Histologically, dogs with CS had focal to diffuse polar attachment of spirochetes to the brush border of enterocytes causing effacement of microvilli. Attachment of spirochetes also was seen

along areas of epithelial cell erosions where the underlying stromal connective tissue had been exposed. Formalin-fixed, paraffinembedded colons from two dogs with large numbers of spiral-shaped bacteria on the surface and free in the lumen of the crypts yielded positive results for the presence of spirochetes by IHC. However, positive FISH only with the Eubacteria 16S rRNA probe suggested either overgrowth by spiral-shaped colonic bacteria cross-reacting with the 7G2 monoclonal antibody or false negative results with probes targeting *Brachyspira*16S and 23S rRNA genus- and species-specific sequences.

Spirochete bacteria have been seen in intestinal specimens obtained from dogs for nearly a century, however their role in disease has remained controversial. Recent advances in bacteriological isolation and identification methods indicate that intestinal specimens from dogs contain two culturable weakly beta-hemolytic spirochetes; *B. pilosicoli* associated with CS and non-pathogenic commensals designated "*B. canis*". Since non-pathogenic commensal spirochetes are sometimes found in stools taken from dogs with diarrheal disease from causes other than CS, biochemical and genotypic identification are essential for accurate diagnosis of canine CS. A correlation between isolation of *B. pilosicoli* and demonstration of the spirochete in association with colitis by IHC confirmed the role of this spirochete in disease of dogs. Absence of colitis in dogs with "*B. canis*" further confirmed that this spirochete is a non-pathogenic commensal. Because of the need for specialized microscopy equipment, demonstration of spirochetes by FISH might not be applicable to routine laboratory diagnosis.

Since *B. pilosicoli* isolated from dogs are indistinguishable from the spirochete causing disease in humans, and *B. pilosicoli* isolated from a dog with diarrhea was similar to spirochetes isolated from Aboriginal children with diarrhea living in the same community in Western Australia, CS is likely to have public health significance. In Western societies, CS is found in immunocompetent young children and homosexual adult males and in individuals infected with the human immunodeficiency virus. Since transmission of *B. pilosicoli* is by the fecal-oral route, exposure to fecal materials from pets may be a risk factor for acquiring the infection in humans.

Nominations for candidates were solicited among the attendees. Dr. Chitrita DebRoy from the Department of Veterinary Science at the Pennsylvania State University, University Park was nominated by unanimous vote.

The format for next year's committee meeting was discussed. Suggestions for topics included diagnosis of enteric diseases caused by *Lawsonia intracellularis*, torovirus and calicivirus. Topics of general interest will be solicited among committee members before developing a final agenda.

Epidemiology Committee

Co-chairs: Mark Thurmond, François Elvinger, November 2, 2001, 10:00 am to Noon, Hershey, PA.

Twenty-six participants including 8 of 17 committee members were present.

Following a brief introduction by Co-chair Thurmond and introduction of all attendees we proceeded to review activities of the 2000 meeting and during the past year. The mission of the committee was presented and reaffirmed stating that 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 for the maintenance of animal and public health.

Following last year's meeting, a recruitment email was sent out to all AAVLD members listed in the AAVLD membership directory with a declared interest in Epidemiology. They were invited to join, and to list topics that they felt should be addressed by the committee. We obtained 20 responses, of which 15 requested inclusion in our committee.

From all responses and sign-up sheets at last year's committee meeting, the main topics chosen to be addressed were 1) validation of diagnostic tests and 2) interpretation of results; specifically, (regarding #1) discussion of methods of validation, status of diagnostic tests currently employed in diagnostic laboratories, measures of assay performance, standardization and quality assurance; (regarding #2) formulation of case definition, use of information of characteristics of tests, population based interpretation, contribution to surveillance and determination of trends, use in risk assessment, and presentation of results through software and web-based data bases. In addition, those responding suggested reviewing the usefulness of laboratory data in epidemiological studies, data mining, study designs and methods for field investigation, sample size considerations for diagnostic work-ups, especially in aquatic species. In addition, methods for outcome assessment and cost-benefit of diagnostic activities are topics that need to be addressed by the committee.

Committee members recognized that the topic of Epidemiology was receiving greater attention in the scientific activities of AAVLD members. In an informal survey of all papers presented at this year's scientific sessions, we determined that, besides all papers in the

Epidemiology session, more than one quarter of all presentations in the non-epidemiology scientific sessions had a strong Epidemiology component.

Dr. Sharon Hietala presented a review entitled 'Validation of diagnostic tests and procedures'. Validation of diagnostic tests is a critically important process, extending from test development to field evaluation of properties and characteristics of tests. Following determination of sample type (serum, plasma, tissues; species; collection and storage methods) on which the test is to be performed, and determination of assay parameters (time, temperature, reagents, equipment, expendables), as well as outcome (OD, band, color), test validation requires multi-site evaluation including end-user input. Diagnostic test validation has to be clearly targeted to a defined population (exposed, infected, clinical, breed, age-group) and bounds for interpretation into other populations have to be set.

Dr. Hietala presented components that need to be considered when determining characteristics of tests, i.e. sensitivity, specificity, accuracy and precision, as well as the influence of pre-test probability or prevalence on interpretation of test results. The importance of broad geographic and demographic representation, sample size considerations, the need for inclusion of samples near the cut-off values of tests, and the importance for follow-up of continuous validation in the field were stressed.

Following Dr. Hietala's presentation, topics for a Workshop on Test Validation to be held at the 2002 annual AALVD meeting were discussed and are listed below.

Dr. Jim Case presented the value and uses of diagnostic laboratory data. Diagnostic work-ups are primarily to result in individual case reporting, however laboratories generally also produce summary reports, either by tallying diseases and diagnoses over a period of time or for particular clients. Laboratory data also can be used for quality control and proficiency information. Periodic reports, in addition, are used for information on resource management.

The potential could exist for mining the diagnostic laboratory data, looking for spatial and temporal associations, sequences, patterns between cases, diagnoses, diseases, within populations that may eventually allow forecasting of health events in targeted populations. However, many limitations prevent us from realizing all potential benefits from the accumulated data. Drawbacks include sample selection, quality and submission patterns, and geographic and demographic deficiencies and ambiguities: sample appropriateness and quality cannot be controlled in general submissions, however we have control over result accuracy and reporting, which can be improved by overcoming the following obstacles: limited laboratory record automation, lack of standards in laboratory procedures, limited inter-organizational information exchange, extensive use of free-text narration, lack of standardized terminology, lack of classification criteria, and few external influences that would force the removal of those obstacles. Ways to improve laboratory data would include client education in appropriate sample submission with sufficient case information, data quality assurance / control, standardization and validation of analytical methods, national proficiency testing of all personnel performing tests and diagnostic evaluations, and adaptation of terminology and information exchange standards. Improvement of diagnostic laboratory data and information takes the commitment of all laboratory areas in order to obtain the full benefit of diagnostic evaluations.

In the final deliberation the committee adopted as an action item for the Year 2002 the organization of the Workshop on Test Validation for the 2002 AAVLD Annual Meeting in St. Louis, MO. Contributions and input from other AAVLD committees (Toxicology, Bacteriology, Virology, Serology, Pathology) will be sought. Targeted participants will be all AAVLD members, with a special invitation to laboratory directors. Sponsors for invitation of speakers and educational materials will be sought. Proceedings should be published on CD. The following topics were proposed:

Test criteria – sensitivity, specificity, accuracy, precision, repeatability, and confidence intervals for these criteria; analytical, interpretational / functional criteria

National and international guidelines for test validation, standards (AOAC)

Scope and multiphase aspects of test validation:

Product development - post development experimental – field – post licensing capture of information; intra-lab and inter-lab variation; known samples; number of samples to be included in each phase; validation at cut-off; expansion of validation outcomes to populations not included in validation process (minor species)

Gold standard or non-gold standard; controls, comparisons between tests

New diagnostic test procedures: are there different methods needed to validate molecular based tests (PCR etc.)? Validation of culture, toxicology, pathology, and other disciplines' procedures

Disclosure of validation procedures: what information (assay type, demographic and geographic characteristics of animals used, etc.) is needed with tests, test kits; quality assurance; access to all validation information at the Center for Veterinary Biologics (CVB).

Multiple testing (serial, parallel): dependence / independence of tests Benefits / Costs of correct and incorrect 'diagnoses' in Veterinary Diagnostic Laboratories. Costs calculated from predictive values. Costs to client of varying cut-offs Legal considerations / liabilities associated with test results.

The committee nominated François Elvinger for another term as Committee Co-chair.

Financial Advisory Committee

Chair: Lean Thacker, November 2, 2001, 7:30am, Hershey, PA.

There were three members in attendance: Drs. Don Lein, Alex Ardans (ex-officio) and Leon Thacker (chair).

Following review of the present investments of the organization, even though losses have been encountered, it was unanimously agreed that moving to other investments would be too risky to pursue at this time. In accordance with this, it was agreed to leave present investments of the organization in their present locations.

One item for further consideration by the Committee was discussed. Recommendation was made that the Accreditation Committee consider increasing accreditation fees for laboratory systems that have more than one laboratory to be visited during a site visit and for which accreditation evaluations and recommendations are written in the final report. This recommendation was forwarded to the Accreditation Committee.

Food Safety Committee (AAVLD)

Chair: Richard Oberst, November 1, 2001, 6:30-7:45pm, Hershey, PA

The first meeting of the AAVLD Food Safety Committee had 18 participants sign-in. The participants represented governmental agencies (USDA-FSIS, FDA), as well as academia.

Dr. Oberst welcomed all attendees and described the reasons for the Committee as charged by the Executive Board. The diversity of what food safety represents, particularly related to "pre-harvest food safety" was described.

To give an overview of where different diagnostic facilities are in regards to food safety, a number of individuals from the committee gave brief descriptions of their home units focus:

Dr. Hailu Kinde from the California Animal Health & Food Safety Laboratory (CAHFSL)-San Bernadino branch gave an historical overview of how the Food Safety program has grown from the detection of *Salmonella* in certified raw milk to a full array of food safety pathogen testing in milk and dairy products. The laboratory attributes its success from partnerships it developed working closely with the California Department of Food and Agriculture and promptly responding to its needs. For example, the listeriosis outbreak in 1985 involving the Mexican style soft cheeses initiated the surveillance for *Listeria* organism in such products; routine pathogen testing on raw milk and powder milk produced and manufactured in California; pathogen testing on cheese and other dairy products manufactured illegally that are seized by regulatory agencies; testing of *S. enteritidis* in poultry environments and shell eggs following a trace back investigation of human salmonellosis by regulatory agencies; the laboratory has also been involved in investigations of large botulism outbreaks in dairy cows, and phorate poisoning in dairy cows etc. Currently, the laboratory is the designated Central Milk Laboratory for the state of California, which is certified and reviewed periodically by FDA. Under this program the laboratory is responsible for the examination of milk and dairy products for wholesomeness, participate in the FDA drug residue program in milk, and administer the Split Sample Program to the commercial laboratories in the state of California. Dr. Kinde also described how an interagency team, made up of CA Dept. of Public Health, FDA, CDFA, USDA, FSIS, Academia, and CAHFS meet quarterly to discuss food safety.

Dr. Doreen Hyatt from the Colorado State University Veterinary Diagnostic Laboratory (CSU-VDL), Ft. Collins described the situation at CSU and said that no food safety testing, other than milk testing, was being completed. Dr. Hyatt described the lack of cooperation between the Colorado Dept. of Public Health and the CSUVDL. She described limited FoodNet involvement in the state to include only 5 counties in the Denver metropolitan area, and the limitations of recovering money from diagnostic revenues because of caps placed on those revenues. This limits amount of money available for more testing.

Dr. Tom Besser from Washington State University (WSU), Pullman, WA described the food safety testing being completed at WSU. He described how their lab was an ancillary lab for poultry diagnostics, and that *Salmonella* and *E. coli* testing were now major revenue sources. Dr. Besser also described major research efforts being conducted to support pre-harvest risk assessment studies, and how this is fostering additional research in the development of monitoring systems and test standardization. He also stated that while WSU had a large involvement in food safety, he perceived difficulties in nation-wide interest.

Dr. Nate Bauer, USDA-FSIS described a need for more testing, with particular attention to more in-field screening tests to get away from regulatory hurdles. This would require more rapid tests and additional research focus on "common pathogens". Dr. Bauer described how FSIS is bogged down with post-harvest issues/testing, and believes that this would justify contracting testing out to state/university diagnostic facilities.

Dr. Randall Lovell-FDA, described how his agency is involved in pesticide testing, surveillance of *Salmonella* in feeds, and illegal dairy products.

Discussions then shifted to comments that would assist the executive committee in deciding how best to address food safety for the AAVLD. The attendees agreed that there was a need for greater communication with other AAVLD committees where food safety issues overlapped, as well as with other agencies, commodity groups, and producer groups to assist in identifying problems and then resolving them. It was noted that the USAHA Committee on Food Safety already has some of these interactions as USDA-FSIS, AFDO, FDA, USDA-APHIS, NCBA, AMI, and others are represented on the committee. Greater involvement with state public health departments was also advised. The Committee requests guidance from the Executive Board regarding this recommendation.

In this regard many legal issues regarding reportability were described as being under state regulations. It was also noted that there was a historical basis for these divisions (animal health vs. public health) that did not necessarily align with current definitions about what pre-harvest food safety involves. The participants thought that a questionnaire defining how individual states address pre-harvest food safety issues would be helpful to the AAVLD in formulating a food safety strategy. This was based on the belief that there might be state-to-state bias in regulations; not knowing what kinds of programs were available from state-to-state. The Committee requests guidance from the Executive Board regarding this recommendation.

Dr. Oberst also requested that each participant send him responses to the questions submitted from the Approved Methods Committee.

AAVLD Foundation committee

Co-Chairs: Gavin Meerdink and Leon Thacker November 2, 2001, Hershey, PA.

There were 8 members in attendance.

As of September 2001, the Foundation had a total fund amount of \$74,955 (in checking and mutual funds).

For the determination of the Foundation sponsored best paper published in the Journal of Veterinary Diagnostic Investigation, the committee elected the following mechanism: The Editor of JVDI will select the five best manuscripts and submit those titles to the Foundation Chair. The Foundation members will select the best based on 1) originality, 2) clarity and 3) impact to diagnostic medicine. All papers will be considered. The Foundation Committee will announce the winner and present the \$500 award at the next annual AAVLD meeting following the calendar year of the manuscripts that were considered.

Last year the Foundation decided to prepare a brochure designed for veterinary students to highlight career opportunities in diagnostic medicine. Dr. Powers discussed progress on the text preparation of the brochure. Members will be asked for photos or images to support the text material.

The donation process will be refined with the addition of two new classifications and a listing of donation designated categories. Besides the established Contributor, Associate, Sponsor, Director, President, Memorial and Corporate donation levels; Corporate and Memorial "NAMED" classifications will be established. NAMED awards allow the contributor to designate the purpose of the funds and will require a donation of at least \$30,000. Associated with the dues statement, members can contribute to the Foundation via designated category choices for their donation. Discussion by the committee was to propose areas for designated giving in line with the current proposed programs of the Foundation. These areas of designated giving would include "Student externships in a diagnostic laboratory", a financial award for E. Pope winner, Graduate student poster/presentation and JVDI best paper awards.

Dr. Barbara Powers was nominated as Chair of the AAVLD Foundation following the expiration of Drs. Thacker and Meerdink terms.

Government Relations Committee (AAVLD)

Chair: Bruce Akey, November 3, 2001, 3:30-5:30pm, Hershey, PA.

There were 9 members and guests in attendance.

A representative from the USDA Agricultural Research Service's Office of Technology Transfer had been scheduled to attend the committee meeting to discuss ARS policies/procedures for transfer of technologies developed by ARS to both public and private sectors however the representative did not show up. The committee decided that an effort needs to be made to establish better communication between ARS and the AAVLD, for ARS to keep the AAVLD abreast of projects and for AAVLD to provide input to ARS on project priorities. An effort will be made this year to establish an ongoing communications link with ARS.

The committee also discussed recent activity in Congress with several bills having been introduced to provide funding to increase homeland security, including agricultural security, related to bio-terrorism and foreign animal disease incursions. None of the proposed legislation addresses strengthening state level veterinary diagnostic laboratory infrastructure or capabilities specifically. The following broad needs at the state level were identified:

Infrastructure

- 1. BSL-3 suite in each lab
- 2. Equipment to perform rapid PCR diagnostics
- 3. Information systems/communications infrastructure (LIMS)

On-going Support

- 1. QA officer position in each lab
- 2. Molecular Biologist position rapid PCR diagnostics
- 3. Epidemiologist position
- 4. Increased expertise at NVSL to serve as reference lab
- 5. Proficiency panels from NVSL (annual)

The committee foresees a two-pronged approach to addressing these needs. First, the infrastructure needs could be addressed with one-time block grants to each state on an as-needed basis. Secondly, on-going needs would be addressed by establishment of a State/Federal cooperative program with line item funding to support positions. Coordination of this cooperative program could be under the oversight of the AAVLD/NVSL Working Group established in the recent AAVLD/NVSL Memorandum of Understanding.

A draft of this proposal will be prepared by the committee for use in educating Congress and industry support groups in the hopes of getting specific wording into one or more efforts to strengthen Homeland Defense that are pending in Congress.

Informatics Committee

Chair: Jim Case, November 2, 2001, 1:00-4:00pm, Hershey, PA.

There were between 16 and 22 people in attendance during the course of the meeting.

The purpose of the meeting was an educational workshop on the Logical Observation Identifier Names and Codes (LOINC) standard. An introductory presentation by Dr. Jim Case, chair of the committee, reviewed the resolution passed by the House of Delegates last year in Birmingham stating that HL7, LOINC and SNOMED would be the messaging and terminology standards adopted for use in electronic data transfer between veterinary diagnostic laboratories. This was followed by a detailed review of the LOINC standard and the terminology mapping tool, RELMA, provided by the Regenstrief Institute for Health Care.

A substantial portion of the session was a series of exercises in the use of the RELMA tool to map a test catalog set that demonstrated the challenges associated with taking the variability in test names that exist in diagnostic laboratory test catalogs and mapping them to a standard. Copies of the LOINC database and the RELMA tool were provided to the meeting attendees. Many attendees had brought computers that allowed interactive training to occur. Dr. Case addressed both general and specific questions concerning the mapping and use of LOINC in diagnostic laboratories as well as how this standard fits with the HL7 and SNOMED standards. There was recognition that movement towards standard representations of diagnostic laboratory information would be a tedious task. There was diversity in the understanding of how these standards might actually be implemented in existing and new information systems in diagnostic laboratories.

During the follow up to the training sessions, discussion on next steps commenced. It was decided by the group that an email discussion list would be established that would allow laboratories that were continuing to map their test catalogs to ask questions and exchange information about mapping experiences. It was hoped that by next year that a small number of laboratories would have completed this mapping. Dr. Case is continuing his work on enhancement of the HL7 standard to support veterinary medicine and will keep the committee up to date on this and other informatics related projects that are underway.

Plans for next years meeting were not discussed.

Laboratory Administrative Personnel and Management Committee

Chair: Linda Hendrickson, November 3, 2001, 1:00-4:30pm and November 4, 2001, Hershey, PA.

There were 8 members and 10 guests in attendance.

The minutes of the October 2000 LAMP Committee meeting were distributed and approved. Participants introduced themselves and described their duties at their respective laboratories.

Laboratory Updates:

The first case of West Nile virus in a horse was recently reported in Indiana. Also, during the past year, the large animal clinic at Purdue University was closed a part of the summer of 2000 due to salmonella infection. The ADDL continues to support their monitoring program.

The Animal Health Laboratory in Guelph, Ontario, recently met requirements specified by the ISO 9002 standards and was certified.

Colorado State recently installed an animal and tissue digestor. The cost for the digestor was approximately \$500,000 and was funded by the state and the USDA. The digestor will process 2,000 pounds in 4 to 5 hours.

In the past year, testing for Johnes' dramatically increased at the Hopkinsville laboratory.

Reportable Diseases:

Reportable diseases and the procedures for reporting them were discussed. It was noted that each state varies on which diseases are reportable. Most laboratories send reports to the state and then the state forwards to the USDA if required. In some laboratories, the computer system flags those diseases that are reportable and in others, personnel manually pull the reports that are to be forwarded to state and/or USDA.

Department of Transportation Shipping Regulations:

Shipping regulations were discussed. Most laboratories have designated employees who are trained and certified to package and ship biohazardous goods. Because of recent acts of bioterrorism, it was reported that some post offices and couriers have refused to accept biological specimens. Several labs experienced difficulty obtaining information from the DOT on proper packaging and labels for certain items (e.g., formalin). Standards for packaging varied among couriers.

Scanning of Reports:

Jay Kammerzell, Colorado State Veterinary Diagnostic Lab, gave an overview of the document scanner his laboratory recently purchased. It is a Sharp AR405 copier/printer/scanner that uses VisionShape software. Features include: duplex scanning, ability to create PDF, and speed of 40 ppm. The legality of digital versus paper documents was discussed.

Electronic Tour:

Geraldine Jessup gave a slide presentation of the California Animal Health and Food Safety Laboratory System. She discussed its mission, annual planning process, strategic, unit and financial plans, continuous quality improvement and its future.

Sunday, November 4, 2001

The following topics were suggested for the 2002 LAMP Committee Meeting: ISO requirements; SOPs; Security measures; VISAs; Workload tallies/tests; Personnel evaluations and how they are used to determine pay increase.

Geraldine Jessup shared with the group the results of the 2001 Employee Survey recently conducted at CAHFSLS. The greatest concerns were: 1) compensation/benefits, 2) communications, 3) decision making, and 4) training and development. The information is analyzed and used in assessing the organization's strengths and weaknesses, and for planning and budgeting purposes. Results of the survey are distributed to the employees.

Legal cases were discussed that involved affirmative action issues.

Linda Hendrickson and Steve Vollmer, Purdue University ADDL, gave a demonstration of Purdue's adaptations to the VisuaLab system.

Dr. Helen Acland conducted a tour of the Pennsylvania Veterinary Diagnostic Laboratory in Harrisburg.

Laboratory Directors Committee

Co-chairs: Alex Ardans and Gary Osweiler, November 3, 2001, 5:30-8:00pm, Hershey, PA

Isabelle Arrington, Center for Veterinary Medicine, FDA discussed a program for chemical and toxin bioterrorism preparedness. She reviewed CVM's responsibilities for animal drugs & feed additives and described the Feeds Safety, Medicated Feeds, and Nutrition & Labeling Teams. The FDA/CVM roles in counterterrorism also include feed contaminants and tissue residue compliance programs. Their short-term goals include building collaborative relationships and informing regulatory and practicing veterinarians along with diagnostic laboratories about CVM's technical role. A web site to share information on animal feed contaminants is planned along with identifying test methods and capabilities of diagnostic labs. Currently they are evaluating the ISU database and search engine. Discussion followed concerning issues with communication delays in contamination cases, when diagnostic laboratory results have to be confirmed by federal agencies.

Bob Glock, Arizona, discussed a resolution from the USAHA transmissible diseases of swine committee, expressing a concern for expanded capacity for diagnoses of African Swine Fever/Classical Swine Fever and reminded everyone that during the last stages of the hog cholera eradication program, the disease had been a challenge to diagnose grossly. The group supported the resolution and it was forwarded to John Andrews to be presented at the AAVLD House of Delegates meeting.

<u>Accreditation review</u>: Dr. Thacker reviewed the resolution passed by the House of Delegates in 2000 directing the accreditation committee to review and study international laboratory accreditation standards, and in specific, to review the ISO-17025 guideline for its application to AAVLD's accreditation process. Dr. Thacker reviewed this past year's meetings with A2LA, a major accrediting body for ISO-accreditation in the United States. Grant Maxie, whose laboratory had recently been registered to ISO 9002 guidelines, spoke to the merits of registration and the commitment of continuous improvement. Konrad Eugster commented on his involvement in the OIE meeting in Paris and on the OIE guidelines produced for laboratories dealing with infectious disease. He emphasized that the OIE was made up of 167 countries, many of which would have difficulty in achieving these standards.

<u>Johne's PCR patent:</u> Bob Whitlock, University of Pennsylvania, commented on a Johne's workshop he had been involved in and the subsequent contact by an individual representing Bioscience International Limited which holds the patent on the IS900 sequence

who informed him that Pennsylvania did not have permission to process samples for Johne's by PCR. A Pittsburg law firm, specializing in biological patents engaged by the University of Pennsylvania, gave an opinion that the use of IS900 is not permitted and to do so would be in violation of the patent except if data was being used for regulatory agencies. The site license to use Johne's PCR is \$30,000 plus a fee per test produced. Dr. Whitlock commented that ARS was working on other sequences from heat shock proteins which may be outside of this patent. Comments were made that the para-TB genome was 90% sequenced and that additional sequences may be identified that could be used. Leon Thacker commented that their patent attorney had given an opinion that the patent covered the entire para-TB genome and that they had never seen a patent quite as broad.

<u>Alkaline Tissue Digestion</u>: Barb Powers, Colorado State University, reviewed the operation of their WR² tissue digester that has been in operation for one month. The 2000 pound capacity unit cost approximately \$300,000 along with about \$100,000 of site preparation that had been funded 1/3 by the state of Colorado, 1/3 by Colorado State University, and 1/3 by USDA for the scrapie program. The city of Fort Collins has levied a \$2,000 per month charge for discharge into the city sewer, and in response WR² is currently developing a dehydrator to eliminate the need for fluid effluent discharge into the sewage system. Dr. Powers stated there had been no problems with odors. She said that work had been done in England validating prion inactivation. She estimated the cost with the dehydrator to be from 1-1.5 cents per pound - currently costs are approximately 4 cents per pound with potassium hydroxide, which is more expensive, and with the sewage costs was about 8-10 cents per pound. She commented that rumen contents had to disposed in an alternate fashion.

Disease Reporting to State of Origin: Bruce Akey encouraged reporting of list A and B diseases back to the state of origin in order to satisfy the national animal health reporting system.

Meeting adjourned 8:00 P.M.

Laboratory Safety/Waste Disposal Committee

Chair: Larry Thompson, November 4, 2001, 1:00-5:00 pm, Hershey, PA Report pending.

Long-Range Planning Committee

Chair: Willie Reed, November 1, 2001, 3:30-5:30pm, Hershey, PA.

There were 5 in attendance.

The committee discussed the following agenda items:

Should AAVLD review and revise the procedures for nominating officers? The committee discussed the procedures that have been used in the past to select nominees for officers of AAVLD. The general consensus was that the bylaws pertaining to selection of nominees for officer positions, as well as procedures used by the Nominating Committee to select candidates, are adequate and no changes are needed.

What role should AAVLD play in recruiting young professionals into diagnostic medicine? The recruitment of young professionals into diagnostic medicine must be a high priority of AAVLD, in order to sustain the vitality of diagnostic medicine in the U.S. The AAVLD must find ways to expose young professionals to diagnostic medicine. Some ways that were discussed by the committee included developing a "careers in diagnostic medicine" brochure and reducing the registration fee for trainees to attend the annual AAVLD meeting, so that they are exposed to the many facets of diagnostic medicine. It was felt that the AAVLD Foundation must play a major role in providing funding for recruitment, in order for there to be a significant impact on expanding the number of young professionals pursuing diagnostic medicine.

Should the AAVLD pursue status as an allied organization of the AVMA? The Long Range Planning Committee strongly believes that obtaining a seat in the AVMA House of Delegates would be beneficial to AAVLD in meeting its stated objectives. The committee recommends that the Executive Board pursue this course of action and determine the number of AAVLD members who are also members of AVMA, to determine if this is a viable option.

Appointment of a Quality Assurance Committee. The AAVLD has served as the only accrediting body for publicly funded veterinary diagnostic laboratories in the U.S. Evolving international standards will necessitate new management and technical

requirements for laboratories conducting tests for infectious animal diseases. In order for AAVLD accreditation to continue to be accepted by OIE and U.S. trading partners, AAVLD accreditation procedures and requirements will undoubtedly have to change to require more emphasis on quality assurance, in order to comply with the new international standards and requirements. Therefore, the Long Range Planning Committee strongly recommends that the Executive Committee establish a Quality Assurance Committee, to assist laboratories in meeting these new standards.

AAVLD's involvement in bioterrorism/agriterrorism. The Long Range Planning Committee believes that the AAVLD must play a pivotal role in the national effort to combat bioterrorism/agriterrorism and safeguard our animal industries. The committee recommends that AAVLD seek ways to work with APHIS, the Animal Research Service, and other federal agencies to address this national concern.

Update on the AAVLD strategic plan. President-Elect Blanchard updated the committee on progress made on implementation of the AAVLD strategic plan. The Long Range Planning Committee commends the Executive Committee for its swift action in developing the plan and for the progress made to date in implementing it.

Membership Committee

Co-chairs: Terry McElwain and Richard Mock, November 3, 2001, 5:00-6:00pm, Hershey, PA.

There were 5 members and 2 guests present.

- 1. The membership statistics as of September 30, 2001 were reviewed. There were 1228 active members, which is an all-time high.
- 2. New-member welcome letters explaining the many benefits of AAVLD membership were sent to 143 new members in 2001.
- 3. Over 300 notices were forwarded to delinquent members in early 2001, most by email. It was noted that 2001 was the first year with an October 1 dues deadline, likely accounting for the large number of delinquent dues notices.
- 4. A copy of the letter to new members and the dues reminder were distributed to the committee. The dues reminder needs to be revised to include the dollar amount for different membership options.
- 5. It was decided that data on the reasons for dropping membership would be acquired through a letter to previous members indicating that AAVLD is sorry to lose their membership and is interested in the reasons why they chose not to renew.
- 6. An orientation session for new members at the beginning of the annual meeting will be considered, and if held will be used to explore the background of new members in an effort to target other potential members. USAHA now has a similar meeting, and feedback on that meeting will be obtained from J. Lee Alley.
- 7. There was discussion of a request from AAAP to share our membership list. The committee agreed unanimously that this request was reasonable and recommended to the Executive Board that it be honored. It was noted that the AAAP membership list previously had been shared with AAVLD. The committee also noted that the Executive Board or Committee should individually address each request for AAVLD general membership address/email lists since some requests should not be granted.
- 8. The committee discussed the problem of attracting new professionals to the specialty of diagnostic medicine. This is a serious issue with many facets. One of the most difficult problems to address is insufficient salary when compared to other opportunities, including specialty practice and industry. While salary is an overriding concern, we also need to more extensively promote other attributes of our specialty. One way to do so is to involve more veterinary medical and DVM graduate level students in diagnostic medicine through externships and graduate programs, and to promote graduate student attendance at our meeting through travel scholarships. These initiatives also are being promoted by the Foundation through designated development funds. It was agreed that travel scholarships for graduate students would be recommended as a priority for Foundation funding. The pathology committee also will be discussing this initiative, and the Foundation committee is developing a brochure to promote the specialty of diagnostic medicine. In addition, it was noted that the Executive Board approved reduced annual meeting dues for AAVLD graduate student members.

Pathology Committee

Chair: Paige Carmichael. November 4, 2001, 12:30-1:00 pm, Hershey, PA.

There were 25 members in attendance.

1. Drs O'Toole, and Grimes reported on the C.L. Davis pre-meeting symposium. There were approximately 60-70 people that attended. The symposium was thought to be an overall good presentation by leaders in their areas of expertise. The time

(Thursday before the meeting) was good, the price was very reasonable and two fascicles were included in the fee. The group thought that it had good potential for attracting more graduate students to the meeting. The consensus was that the symposium was beneficial and that it should be a continued part of the meeting. The critiques included: too little time for discussion or questions, lack of inter-pathologist interaction and little new information that was not already in the fascicles.

Suggestions for future symposia were: a. Immunohistochemistry (methods and interpretation); b. Image analysis and morphometry; c. Molecular diagnostic techniques; d. Dermatopathology; e. Mammary tumors; f. Interpretation of invasive biopsies in the face of clinical presentation; g. Diagnostic toxicologic pathology; and h. Oncology Initiative

These suggestions will be forwarded to the C.L. Davis Foundation. The committee suggested that future speakers be given free registration to the AAVLD meeting that would have to be done via a slight increase in the CL Davis registration fee to cover the meeting registration fee for speakers.

- 2. Drs O'Toole and Layton reported on the Histopathology Slide Conference. The histopathology slide seminar was well attended this year (~50 people). There were 23 cases presented and the speakers kept to their time limits well. The abstracts are available on the AAVLD web site (www.aavld.org).
- 3. Dr. Sheila Grimes was selected as the next co-chair of the slide session. Dr. Layton will be the Chair next year. The committee agreed that the time change to directly follow the Pathology scientific session was preferred. A discussion on the type of cases ensued and most of the committee members favored the presentation of unknowns at the slide seminar. The more complete case presentations should be referred to the scientific sessions.
- 4. The Pathology Committee agreed to support a pathology trainee travel award. The criteria for this award, method of selection and deadline for selection will be decided on by the committee in the next two months.
- 5. Dr. Blanchard requested the committee consider the questions from the Approved Methods committee. Dr. Carmichael will email these to the committee members for further discussion.
- 6. Dr. Carmichael reported that Dr. Jeanne George, chair of the ASCVP subcommittee for QA/QC would be contacted about QA/QC guidelines for Clinical Pathology in AAVLD
- 7. The meeting was prematurely adjourned at 1:00 pm due a scheduling conflict. It was decided that the discussion on digital imaging systems would be continued via email.

Publications Committee

Chair David Steffen, November 2nd 2001, 8:00-10:00am, Hershey, PA

There were 6 members (David Steffen, Pat Blanchard, Gary Osweiler, John Kreeger, Fred Hoerr, Carlos Reggiardo) and two visitors (Vickie Cooper, Randy Bergef) present. Absent: Dwayne Hamar, Susanne Hinkley Vickie Cooper was nominated as a new at-large publication committee member.

A: Web Site was discussed and the following changes were recommended:

- 1) Create a link to the FTP site at Nebraska for image sharing
- 2) Create a link to Committee chair E-mails to foster communication from members to committees
- 3) Inform members via the distribution email list of significant Web enhancements and need for individual password.
- 4) Accredited Laboratories should update their web link addresses when paying accreditation annual dues and whenever there is a change of address.
- 5) The maintenance of links was discussed.
- 6) The new Message/Bulletin board function on AAVLD web site has thread and search functions that are not available on the list serve discussion lists. The committee felt the list volume is small enough that the convenience of e-mail fosters better communication than the Message board format at this time. Both options are now available to members.
- 7) Link to a Foundation Donor Form for submitting contributions.
- B: Newsletter:Pat Blanchard's term as newsletter editor will expire the end of 2002 so anyone willing to take on this job should contact her or the publication committee chair, Dave Steffen. This is an excellent opportunity to get familiar with AAVLD and to contribute. The newsletter is doing well with the web publishing and significant monies are saved.

C: JVDI

- The journal is still a top 10 veterinary journals based on citations in other articles and has a world wide distribution and coverage. Rejection rates and the review process were discussed. Turnaround time is averaging 50 days.
- Additional members are needed for the editorial board. Most disciplines are needed so interested parties are encouraged to contact Dr. Kreeger. All disciplines are needed, particularly, toxicology, epidemiology, clinical pathology, molecular diagnostics, and bacteriology.
- 3) Review article solicitation was discussed and members are asked to encourage graduate students to submit for consideration any meritorious reviews on current appropriate topics from their thesis.
- 4) JVDI is now available on the secure area of the web site. Because of this addition, the security will be increased which will require individual member passwords beginning January 2002. Members should visit the website and set up their own password.
- 5) A membership application will be run in the January issue. The Foundation Donor form will be run space permitting in issues with blank pages.
- 6) Dr. Kreeger updated the committee on soliciting patrons and promotional activities for the journal.
- 7) Strategies for web publishing and access to historical issues for current and past members was discussed. A rolling wall with old issue available to the public and current issues only to current subscribers was discussed.
- 8) As decided the past two years, AAVLD abstracts will not be published in JVDI. The suggestion was made to get an ISSN number for the abstracts so they would be referenced. That will be investigated and considered next year.
- 9) The requirement of authors regarding genetic sequences and submission to genebank prior to publishing was discussed.

Serology Committee

Chair: Peter Wright, November 2, 2001, 3:00- 5:45pm, Hershey, PA.

Six committee members and 37 guests were in attendance.

- 1. The Committee had not received any requests for technical review of any commercial products or kits in the past year.
- 2. The following companies; IDEXX, Biocor, Synbiotics and Diachemix Corp. provided brief updates of their product lines. John Lawrence of IDEXX presented information on enhancements to their HerdChek® Infectious Bovine Rhinotracheitis line of diagnostic EIA kits and introduced the latest version of their xChek[™] diagnostic software. Tom Kellner of Biocor presented an update on their Parachek[™] Johne's Disease EIA kit. Howard Jones of Synbiotics presented updates on their Infectious Bursal Disease Plus[™] and Serelisa[™] ParaTB EIA kits. Ed Corrigan of Diachemix Corp. introduced their line of Fluorescence Polarization Assays, which includes a kit for Brucellosis diagnosis.
- 3. Staff from NVSL presented updates on various check sample programs. Sabrina Swenson described the progress on the Vesicular Stomatitis panel and the results from the Pseudorabies check test. Eileen Ostlund summarized the results from the Equine Infectious Anemia, Equine Viral Arteritis, Bluetongue and Bovine Leukosis check test programs. Steve Hennager provided updates on the Johne's Disease check test program.
- 4. The Serology Committee, in the interest of harmonizing terminology, compiled a 'Glossary of Terms' specifically related to the field of serology. This glossary was distributed for comment in in draft form last year. The 'Glossary' has now been finalized and it was suggested at this meeting that it be made available through the AAVLD website. Peter Wright will follow up on this suggestion. The document was submitted to the web editor and should be on the web site www.aavld.org.
- 5. Peter Wright described the inaugural meeting of the new AAVLD Approved Methods Committee with a brief introduction to its membership, scope and purpose (please see the Approved Methods Committee report for more details). The Committee drafted a series of questions related to test method validation and approval which were to be presented for discussion at each of the Serology, Virology, Bacteriology, Pathology and Toxicology Committee meetings.
- 6. Peter Wright presented a seminar on 'Test Method Profiling'. In this seminar, it was stressed that there is a need to demonstrate that a test method is relevant and that test results are reliable before a method can be accepted as an 'approved method'. The role of validation as an integral part of establishing relevance and reliability was then presented.

7. The floor was thenopen for discussion of the above questions (see item #5). A moderately lively discussion ensued and comments were welcomed. The members of the Serology Committee were asked to reflect on these questions. Responses will be compiled by Peter Wright and forwarded to Frank Galey, Chair of the Approved Methods Committee at a later date.

Veterinary Analytical Toxicology & Mycotoxins and USAHA Environmental Residues Committee

Chair: George Rottinghaus, Novembr 3, 2001, 3:30-6:00pm, Hershey, PA.

There were 21 in attendance.

Dr. Lenn Harrison addressed the group on the topic of how to manage a major outbreak like occurred in Kentucky this year with equine abortions from a diagnostic laboratory standpoint. He discussed 1) animal disposal by renderers and the public image – fear of spreading the problem since there was no diagnosis; 2) designating a single spokesperson and coordinator, in most cases there is no mechanism for teamwork and communications between laboratory and groups such as the agronomist (pasture management); and 3) possible differential diagnoses. Dr. Harrison provided many details on the outbreak during a lengthy question period.

From the experiences discussed by Dr. Lenn Harrison regarding the Kentucky equine abortion issue, the question of animal carcass disposal arose. The committee discussed alternatives to rendering for disposal of animal carcasses. Residues, such as pentobarbitol, chlorinated hydrocarbons, etc., in animals that have been euthanized or poisoned cannot be placed into the rendering stream. This is an important issue for animal diagnostic facilities as pentobarbitol has been recovered from rendered products. Placement of the animal carcasses can be gone before a diagnosis is reached. Incinerators in many facilities are old and lack capacity for large volume (i.e., multiple large animals). Digesters (alkaline chemical) are environmentally acceptable and are finding use in diagnostic facilities. These destroy etiologic agents including many organic toxicants.

Dr. Randall Lovell, Veterinary Medical Officer, FDA/CVM, Division of Animal Feeds gave a brief update on the Fumonisin Guidance Document. The guidelines will be published unchanged in the Federal Register as we advised early in 2002. He pointed out that the horse and rabbit are the most sensitive to fumonisin.

There was considerable discussion on the use of adsorbents in feeds to reduce the adverse effect of the various mycotoxins in livestock. This provides "a false sense of security." A number of companies that distribute these products only provide interested buyers with in vitro data. The committee recommends that individuals investigate experimental data obtained from animal trials (in vivo studies) before recommending these agents.

Dr. Catherine Barr reported on the Toxicology Method Harmonization Workshop that was held on November 1, 2001. The group response indicated that having all the information on the combined test and fee schedules of all the laboratories in one place would be very helpful and time-saving when trying to figure out who runs a test, what it costs, how much and what samples are needed, what methodology is used, and what the turn around time would be, even for the more common tests performed by diagnostic labs. Everyone felt a logical place to post this information would be on the AAVLD website for access by diagnosticians who need help with toxicology cases. Everyone felt that in addition there was a need for a list of exotic tests (sodium fluoroacetate, cantharidin, ergot alkaloids, estrogenic activity, tremetone) that are available and who is the expert in these areas. Consensus of the group was that we do need some degree of method validation, if only enough to ensure the quality of the data to the point of supporting a correct diagnosis; we should not go further than that unless it is required by an accrediting body. It was felt as a start we begin by approving the AOAC validated methods already in existence.

The committee discussed the role that diagnostic laboratories will have in the event of agroterrorism. Some of the most economically significant impacts to US agriculture in the past have resulted from residues (e.g., dioxins, dieldrin, chlorinated hydrocarbons, PCB's, PBB's, etc.). Such agents introduced to our animal and plant production systems afford a significant hazard to our nation's food supply. Veterinary diagnostic laboratories are capable of detecting these agents and are in the best position to discover the problem. A private list serve is presently used on a daily basis to communicate between laboratories in the US, Canada and several foreign countries. A continuous stream of questions, recommendations and comments are exchanged by this means. Events and information are quickly exchanged among laboratories.

Virology Committee

Co-Chairs: David Benfield and Fernando Osorio, November 2, 2001, Noon-3:00 p.m., Hershey, PA

Total attendance was @ 70 persons, of which 46 signed the attendance sheet (18/46 signatures corresponded to committee members)

News from NVSL

Dr. Beverly Schmitt (Chief, Diagnostic Virology, USDA/APHIS/NVSL) reported on different aspects of last year's NVSL activities: a) Testing for Foot-and-Mouth Disease increased 87 % (from 134 tests conducted in 2000 the number went up to 1034 tests in 2001) b) BSE/Scrapie: Dr. Schmitt gave a brief description of the condemnation of a flock of sheep from Vermont that had been imported from Belgium and suspected to be incubating the disease. The herd was transported to Ames, where it was terminated, BSE/Scrapie Western blot results for this herd are pending. c) Dr. Schmitt reported on the Heartwater investigations using PCR, which raised questionable results in cattle from St Croix, thus not confirming infestation by *Cowdria* d) Development of new RAPID test for Avian influenza-LPM, which is appropriate for screening in markets. e) Diagnostic Virology NVSL established services for aquaculture industry, starting with testing for ISAV (Infectious Salmon Anemia Virus)

Real Time Field PCR:

Dr. Dan Rock (PIADC, USDA/ARS) introduced the team that developed a rapid molecular test for Foot-and-Mouth Disease field diagnosis. The test is based on real time PCR and is performed on oral, nasal swabs or oesopharyngeal fluid samples. Johnny Callaghan (Tetracore Inc.) gave a detailed explanation of the steps of the test, including RNA preparation and performance of the test using the Smartcycle platform. Dr. Fred Brown (PIADC, USDA/ARS) described the specificity and sensitivity of the test, which is based on the amplification of a conserved sequence in the 3D nonstructural gene of the FMDV genome. The test detects all 7 serotypes of FMDV, but it does not react with samples containing Swine Vesicular Disease Virus, Vesicular Stomatitis Virus or Vesicular Exanthema Virus. The test presents higher sensitivity than infectivity assays on cell cultures and detects FMDV RNA 24-48 hrs before detection of clinical symptoms. Dr. Manuel Borca (PIADC, USDA/ARS) described the application of a similar test and platform to the detection of Classical Swine Fever Virus. In this case the target sequence is located within the 5'UTR, detecting CSFV isolates that represent different phylogenetic groups but not other Pestiviruses. This assay meets or exceeds the sensitivity of infectivity assays. This assay would help in the rapid diagnosis of CSF and the surveillance and management of emergency responses during a disease outbreak. Dr. Rock showed the next generation of hand-held models of analyzers that permit a truly portable performance of the test. During the presentations, personnel of PIADC USDA/ARS performed a wet-lab demonstration in real time conditions, including preparation of the sample and performance of the assay. A positive result on a FMDV RNA mimic was obtained in a total time of approximately 55 minutes.

West Nile Virus:

Dr. Eileen Ostlund gave an overview of the current situation of WNV infection, emphasizing the changes in geographic range of WNV infection in the US. In 1999, WNV was detected in only NY, CT, NJ, and MD. By the next vector season in 2000, WNV was identified in 12 states plus the District of Columbia. Finally in 2001, WNV has already been recognized in most states in the eastern half of the country plus the Canadian province of Ontario and the Cayman Islands. While the number of human cases decreased in the last 2 years, there has been a concomitant increase in the number of equine cases, with a total of 60 equine cases in 15 states, including Illinois and Tennessee. A conditional license for an inactivated killed vaccine against WNV was issued in August 2001. Several members of the audience inquired about the availability of data on the efficacy of this vaccine.

Single Serologic Reactors to PRRSV ELISA:

Dr. Monserrat Torremorell (PIC USA) explained the problem posed to industry by the occurrence of a consistent percentage of unexpected (primarily false) positive serologic reactors to the commercially available PRRSV ELISA manufactured by Idexx labs. Dr. Torremorell enumerated the alternative procedures established by her laboratory in order to deal with a 2 % incidence of unexpected or false positives (single or few animals testing positive in otherwise negative herds that remain clinically disease-free and serologically negative). She reviewed indirect immunofluorescence, other commercial ELISAs (which are available outside the US) and bioassay inoculation of susceptible animals with pools of tissues of the suspect animals. In collaboration with the U. of Minnesota they have studied the incidence of false positives in different herds, coming to the conclusion that adult herds have significantly more false positive and their immediate contact pen-mates. She uses the Idexx ELISA as a screening test with further validation conducted with indirect immunofluorescence. In spite of the incidence of false positives Dr Torremorell stated that the current commercial kit of the Idexx ELISA is the most effective of the available commercial kits.

The co-chairs discussed the activities for next year and the guidelines provided by the Committee on Approved Methods in relation to selection of important tests to pursue approval of methods. The Diagnostic Virology committee decided that the two tests (or set of tests) to focus during 2002 should be: 1) methods of BVDV diagnosis (VI, IHC,PCR): The following committee members have been identified to start a study group to delineate these procedures: Julia Ridpath, Ed Dubovi, Jerry Saliki and Daniel Weinstock. More names will be recruited by the chairs through email messages to the AAVLD membership at large 2) PRRSV PCR in semen and serum . In this case the two persons nominated have been Drs. Jane C. Hennings and Jim Collins. Additional names will be recruited by email to the membership of AAVLD.

Web Sites of Interest to Members

Immunohistochemistry web sitedatabase and Virtual control tissue bank:

The following website, <u>http://ihc.sdstate.org</u>, lists IHC tests currently being performed by various veterinary diagnostic laboratories in North America. From this website you should be able to access a page for infectious agents and a page for cell markers (biomarkers). At the bottom of each of these pages is a key to the state/province listing, a link to that lab's website, and in some cases, a link to a contact person. If a contact person is listed for that lab, the parties involved have agreed to share limited quantities of positive control tissue should another lab need help in setting up an IHC test. More details about this virtual control-tissue bank can be found on the home page. If your lab is not currently listed but you would like to participate at this website please send an e-mail to <u>TANYA_LEMIRE@SDSTATE.EDU</u> containing the IHC tests your lab performs and the name & e-mail address of a contact person if you would be willing to participate in the virtual control tissue bank. Please send me updates anytime you add or delete an IHC test at your lab and I will modify the WebPages.

The full report of the USDA's Animal Health Safeguarding Review is now available on NASDA's website at:

http://www.nasda.org/ASGRwebsite/Index.pdf. If you wish to download the full text of the Animal Health Safeguarding Review point your browser to: http://www.nasda.org/ASGRwebsite/ At this site you will see a directory listing of all of the components of the report. You can save any piece of the report from here. For the entire report, put your mouse cursor on the file "FullBook.pdf" and click the Right mouse button. You should get a popup menu that includes the choice "Save target as...". Put your mouse cusor on that menu choice and click the Left mouse button. This will popup a "Save As" dialog box that will let you choose where on your hard drive you want to put the file. Choose which directory on your machine to save the file, leave the "Save as type" set to Adobe Acrobat Document, then just left click on Save.

There was an **International Conference on Prevention and Control of Foot and Mouth Disease** convened December 12-13 in Brussels as a kind of post-mortem of this year's outbreak in the UK/Europe. Fortunately, for those of us unable to attend, the conference is posting abstracts and some full papers on the conference website at: <u>http://www.cmlag.fgov.be/eng/conference.html.</u>

Thanks to an educational grant from Bayer and a lot of work by Dr. Corrie Brown at University of Georgia, the USAHA Foreign Animal Diseases Gray Book is now available in electronic format. You can access it on-line at http://www.vet.uga.edu/vpp/gray_book/index.htm. In addition, several thousand copies of the book on CD-ROM will be available shortly. Contact Dr. Brown at corbrown@vet.uga.edu for information on acquiring the CD-ROM. The electronic version not only has a hyperlinked table of contents but also has a built in keyword search mechanism.

The following link will take you to a site that has archived the Powerpoint presentations used in the recent webcast by CDC concerning the **Roles of laboratories in the bioterrorism response**. There is some useful information and overview of the development of a National Laboratory Response Network for Public Health, some of which may be applicable to developing a similar structure for veterinary diagnostic laboratories.

See: http://www.sph.unc.edu/about/webcasts/2001-11-09_laboratories/powerpoints.htm

AAVLD 2002 COMMITTEES

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Nominating Program Publications Web Editor

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Subcte on Antimicrobial Susceptibility Testing

Subcte on Bacteriology and Mycology

Constitution, Bylaws and Resolutions House of Delegates Parlimentarian Emergency Preparedness Committee Enteric Diseases Committee Epidemiology Committee

Financial Advisory Committee Food Safety Committee Foundation Committee Government Relations Informatics Committee Laboratory Directors Committee

Lab Safety/ Waste Disposal Cte:

Long Range Planning Committee Pathology Committee Quality Managers Committee Serology Committee Veterinary Analytical Tox & Mycotoxin Cte Virology Committee

<u>Chairs</u> Leon Thacker- 2002 David Zeman-2002 Willie Reed – 2002 John Kreeger, editor Pat Blanchard – 2002 Willie Reed co-chair – 2002 Richard Mock co-chair 2003 David Zeman – 2002 Terry McElwain- 2002 David Steffen – 2003 Gary Osweiler

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CALL FOR PAPERS 45th Annual AAVLD Meeting St. Louis, MO, October 17 - 24, 2002

Deadline for Abstracts: MAY 15, 2002

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 appropriate and encouraged. Presentations are limited to 15 minutes. The AAVLD Program Committee will review abstracts and corresponding authors will be notified of acceptance by July 15, 2002.

FORMAT: Send as an Email attachment or a hard copy and disk with the abstract in Word 6.0 or older, or Wordperfect 6.1 or older. All abstracts should be one page or less. Format the body of the abstract with one-inch margins using Times New Roman 11-point font. Center and bold the title, center authors below title with initials followed by last name. Place location of authors one line below the body of the abstract text. Abstracts should be accurate and complete. Statements such as "results to be discussed', are not acceptable. Previous meeting proceedings should be examined for style. Indicate.

When submitting your abstract, please provide all of the following information:

- [1] if you plan to use a LCD computer presentation;
- [2] whether the submission is to be considered for the graduate student competition;
- [3] whether you desire an oral presentation, poster, or either;
- [4] what disciplinary session you prefer (microbiology, toxicology, pathology, epidemiology, avian/aquatic); and
- [5] the name, address, phone, fax and email address of the corresponding author.

AAVLD Foundation Graduate Student Awards of \$500 each are given for best poster and best presentation. Note: Graduate student presentations must be indicated on the abstract to qualify.

Submit abstracts to: Dr. Terry F. McElwain, Washington Animal Disease Diagnostic Laboratory, PO Box 647034, Bustad Hall 155N, Pullman, WA 99164-7034; Phone 509-335-9696, FAX 509-335-7424, Email tfm@vetmed.wsu.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 *Journal of Veterinary Diagnostic Investigation*. Guidelines for format and style of manuscripts can be found in the journal. Authors are encouraged to submit their manuscripts to the editor for processing prior to the meeting if possible.

Saturday Histopathology Slide Seminar

October 19, 2002, St. Louis, MO, 3:30-6:00 pm.

Short, interesting, and educational cases are requested for the Saturday Histopathology Slide Seminar. We particularly welcome submission of challenging, cautionary or emerging disease entities where feedback is sought. Presentations are 5 minutes in length, with another 3 minutes for discussion. A copy of abstracts will be available at the seminar, and posted on the AAVLD website. Abstracts should be no more than one page long, single-spaced in 11 pt Times New Roman font.

DUE DATE for submission of abstracts and HE slide: July 15, 2002

Please mail the typed abstract and one HE slide of the lesion to: Dr. Bill Layton, <u>blayton@state.mt.us</u>. Dr. Bill Layton, Montana Veterinary Diagnostic Laboratory, PO Box 997, Bozeman, MT 59771, Ph: 406-994-4885, Fax: 406-994-6344. And email copy of abstract to Dr. Sheila Grimes, Ohio Department of Agriculture, 8995 E. Main St., Reynoldsburg, OH 43068-3399, <u>grimes@odant.agri.state.oh.us</u>

If multiple authors are on the abstract, please identify which individual will make the presentation. Authors will be **notified** of whether the presentation **is accepted by August 6**. Presenters of accepted abstracts must supply a set of 50 glass slides to the moderator by September 6, 2002 to allow review of slides by AAVLD members before the meeting.

Diagnostic Bacteriology Case Presentations

October 19, 2002, St. Louis, MO, 3:30-6:00 pm

Come and join an interesting and informative discussion group. We need your case presentations in order to make this gathering a success. All presentations are informal – yours will be welcome! Send **title of presentation** to Dr. Melissa (Mitzi) Libal at <u>mlibal@tamu.edu</u> or phone 409-845-3414 by **September 1, 2002**.

Future Meetings

For those interested in learning more about laboratory quality from Quality professionals, as well as the opportunity to network with QA professionals, visit the web site of the **Society of Quality Assurance (SQA) at <u>www.sqa.org</u>**. You do not have to be a member of SQA to log onto the site. This web site lists information about regional chapters and specialty subsections, as well as **upcoming meetings**. There are also links to various government sites regarding quality and regulated research.

February 10-14, 2002: Western Veterinary Conference, Las Vegas, NV Web: www.westernveterinary.org

February 12-16, 2002: The NIH Office of Laboratory Animal Welfare (formerly OPRR), the C. L. Davis Foundation for the Advancement of Veterinary and Comparative Pathology, Baylor College of Medicine, University of Texas Health Science Center at Houston, University of Texas MD Anderson Cancer Center will host two co-conferences: **Care and Characteriza-tion of Genetically Engineered Mice**, and **Comparative Pathology in Functional Genomics** (formerly Pathology of Mutant Animal Models) at Baylor College of Medicine in Houston, Texas. Full information on this course is available on the FDN homepage at http://www.afip.org/CLDavis/CLDavis.meetings.htm Contact: Dr. Cory Brayton: Phone: 713-798-6442, Fax: 713-798-8395, Email: cbrayton@bcm.tmc.edu

April 8-12, 2002: The 2002: **Gross Morbid Anatomy of The Diseases of Animals Course** will be held at the Armed Forces Institute of Pathology in Washington DC. Contact: Dr. Brett Saladino, 202-782-2600, <u>saladino@afip.osd.mil</u>, <u>http://www.afip.org/CLDavis/CLDavis.meetings.htm</u>

June 10-11, 2002: **41**st North Central Conference of Veterinary Laboratory Diagnosticians at the Animal Disease Diagnostic Laboratory at the Ohio Department of Agriculture, Reynoldsburg, Ohio. This is the first call for titles with a deadline of March 8, 2002. Submit titles either electronically to <u>grimes@odant.agri.state.oh.us</u> or by facsimile (614-728-6310). An official call for papers, as well as registration and lodging information will be available on-line at <u>www.state.oh.us/agr/animal/</u> addl.htm and/or mailed under separate cover at a later date. Please call Dr. Sheila Grimes (614-728-6300) if you have additional questions.

June 29-July 2, 2002: **6th Biennial Congress of the Anaerobe Society of the Americas** will be held in Park City, UT. This will include a one-day workshop (June 29) on anaerobe identification and susceptibility. For more information visit the web site of ASA at <u>www.anaerobe.org</u>

July 14, 2002: 7th Annual Talbot Informatics Symposium "Improving the Quality and Effectiveness of Veterinary Care through the use of Computers, Technology and Informatics" at the AVMA Annual Convention in Nashville, TN. The AVI Informatics Program continues on Monday, July 15 and Tuesday, July 16, 2002. The Sunday session consists of presentations lasting from 10-45 minutes. Monday and Tuesday's program consists of four 90-minute sessions.

September 25, 2002: **International Society of Veterinary Dermatopathologists** meeting in conjunction with the European Society of Veterinary Dermatologists (Sept 26th-28th) in Nice, France. The **abstract deadline is April 1st 2002**. Information about membership and goals of the ISVD can be obtained at the website (http://isvd.myfsb.com). Meeting registration information can be obtained from Joanne Mansell, D.V.M at jmansell@cvm.tamu

October 17-24, 2002: **45th Annual Meeting of AAVLD & 106th Meeting of USAHA** at St. Louis, Missouri, Millenium Hotel. **Deadline for abstracts is May 15, 2002** to Dr. Terry McElwain at <u>tfm@vetmed.wsu.edu</u>. See call for papers on page 39.

Thank you to Our 2001 Meeting Exhibitors and Special Session sponsors

Exhibitors and special session sponsors are vital to the financial and scientific success of our annual meeting by providing funding to offset costs of special session speakers, food and beverages for the exhibit hall and also providing attendees the latest information on their new and current product lines. Their support over the years has allowed the meeting to grow and kept the registration fees relatively low. We wish to express our heartfelt appreciation to all these companies for their continued support. Following is a list of the exhibitors and special session sponsors for 2001:

Automated Technologies Inc., 208 W. College Ave. #297, State College, PA 16801 (Phone: 814-237-3001) **Bayer Animal Health, Special Session Sponsor** BD Diagnostic Systems, 7 Loveton Circle, Sparks, MD 21152 (Phone: 410-316-4100) Biocor Animal Health, 2720 N. 84th St., Omaha, NE 68134 (Phone: 402-393-7440) BioMerieux, 100 Akzo Ave, Durham, N.C. 27712 Centaur, Inc., P. O. Box 25667, Overland Park, KS 66225-5667 (Phone: 913-390-6184) Cepheid – Exhibitor and Special session Sponsor 1190 Borregas Ave., Sunnyvale, CA 94089 (Phone: 408-541-4191) Global VetLink, L.C., Iowa State University Research Park, 2625 N. Loop Dr. #2130, Ames, IA 50010 (Ph: 515-296-0798) Harcourt Health Sciences, 1 Sharon Ln., Wernersville, PA 19565 (Phone: 610-927-0286) Idaho Technology/Lares Corporation, 390 Wakora Way, Salt Lake City, UT 84108 **IDEXX** Laboratories, Inc. – Exhibitor and Joint Presidents Reception Sponsor One Idexx Dr., Westbrook, ME 04092 (Phone: 207-856-8045) Immuno-Mycologics, Inc., P. O. Box 1151, Norman, OK 73070 (Phone: 405-288-2383) Merlin Diagnostics, 163 Cabot St., Beverly, MA 01915 National Institute for Animal Agriculture (NIAA), 1910 Lyda Ave., Bowling Green, KY 42104 (Ph: 270-782-9798) Pfizer Animal Health, Special Session Sponsor Radiometer America Inc., 810 Sharon Dr., Westlake, OH 44145 (Phone: 314-821-7503) Synbiotics Corporation, 4444 N. Belleview #210, Kansas City, MO 64116 (Phone: 800-247-1725) Syracuse Bioanalytical, Inc., Cornell Business Parr, 95 Brown Road, Ithaca, NY 14850 Texas Veterinary Medical Diagnostic Laboratory, 1 Sippel Rd., College Station, TX 77843 (Ph: 979-845-3414) Trek Diagnostic Systems, Inc., 25760 First St., Westlake, OH 44145 (Phone: 440-808-0000) Ventana Medical Systems, Inc., Exhibitor and Scientific Session Sponsor 3865 N. Business Center Drive, Tucson, AZ 85705 Vetstar, 79 N. Franklin Turnpike, Suite 103, Ramsey, NJ 07446 (Phone: 201-934-7127) Viral Antigens, Inc., 5171 Wilfong Rd., Memphis, TN 38134 (Phone: 901-382-8716) VMRD, Inc. Exhibitor and Special Session Sponsor 4641 Pullman - Albion Rd., Pullman, WA 99163 (Phone: 509-334-5815) Waste Reduction by Waste Reduction, Inc (WR²) Exhibitor and Special Sessions Sponsor 5711 W. Minnesota St., Indianapolis, IN 46241

JOB LISTINGS

Veterinary Pathologist. The Ohio Department of Agriculture Animal Disease Diagnostic Laboratory is seeking applicants for the position of Veterinary Pathologist. Board certification or eligibility in the ACVP is required. PhD preferred. Qualifications include completion of a graduate program in veterinary pathology from an AVMA accredited college of veterinary medicine. Applicants with interest in avian pathology encouraged to apply. Duties include providing diagnostic services in veterinary pathology as case coordinator, etc. Applicants with interest or experience in avian pathology preferred. Candidates should submit curriculum vitae and names of 3 references with a letter expressing their professional interests and goals to: Dr. Sheila Grimes, Section Head, Pathology, Animal Disease Diagnostic Laboratory, Ohio Department of Agriculture, 8995 East Main Street, Reynoldsburg, Ohio 43068. Additional information about this position may be requested by contacting Dr. Sheila Grimes at 614-728-6300.

Assistant Director and Diagnostic Veterinary Pathologist: The C. E. Kord Animal Disease Laboratory in Nashville, Tennessee is seeking applicants for a vacancy in diagnostic veterinary pathology. Candidates should possess a D.V.M. or equivalent degree and have completed formal training (residency or graduate program) in anatomic pathology. The ideal candidate will have obtained board certification in anatomic pathology and have experience in diagnostic veterinary medicine, along with a demonstrated ability in diagnostic laboratory administration. Responsibilities include necropsy and microscopic examinations coordination of ancillary testing and providing a written report to clientele. Strong communication skills are required. Additional administrative responsibilities include personnel management and the evaluation and implementation of new technologies. The salary range has been restructured to be competitive with other state and university laboratories and will be commensurate with experience and qualifications. Interested individuals should send a letter of application including a statement of goals, a curriculum vita, and names, addresses and phone numbers of three references to Dr. Ron Wilson, C. E. Kord Animal Disease Laboratory, P.O. Box 40627, Melrose Station, Nashville, Tennessee 37204. Phone #(615) 837-5125, (e-mail rwilson@mail.state.tn.us).

Diagnostic Veterinary Pathologist: The C. E. Kord Animal Disease Laboratory in Nashville, Tennessee is seeking applicants for a vacant position in diagnostic veterinary pathology. Candidates should possess a D.V.M. or equivalent degree and have completed formal training (residency or graduate program) in anatomic pathology. Responsibilities include necropsy and microscopic examinations, coordination of ancillary testing and providing a written report to clientele. Strong communication skills are required. The salary range has been restructured to be competitive with other state and university laboratories and will be commensurate with experience and qualifications. Interested individuals should send a letter of application including a statement of goals, a curriculum vita, and names, addresses and phone numbers of three references to Dr. Ron Wilson, C. E. Kord Animal Disease Laboratory, P.O. Box 40627, Melrose Station, Nashville, Tennessee 37204. Phone #(615) 837-5125, (e-mail rwilson@mail.state.tn.us).

Veterinary Pathologist: The Department of Microbiology, Immunology and Pathology, College of Veterinary Medicine and Biomedical Sciences, Colorado State University, is seeking an anatomic veterinary pathologist for a tenure track faculty position at the Associate or Assistant Professor level. The position involves a 50% commitment to service activities of the Veterinary Diagnostic Laboratory and 50% commitment to teaching and research activities in the Department. Preference will be given to persons with interests and expertise to collaborate with the college's established Programs. Qualifications include a DVM degree or equivalent and advanced training in anatomic pathology, preferably including a PhD. ACVP board certification is preferred although board eligible candidates will be considered. The successful candidate will have an interest in applied pathology, pathology training, and research experience in an area appropriate for PhD training of post-DVM trainees in pathology. Applications will be accepted until the position is filled, however, for full consideration applications should be received by the **deadline date of January 31, 2002**. Applicants should submit a letter expressing their interest and qualifications for the position, a current curriculum vitae, and the names, addresses, and telephone numbers of three references to: Robert W. Norrdin, Chairman, Veterinary Pathologist Search Committee, Department of Microbiology, Immunology and Pathology, College of Veterinary Medicine and Biomedical Sciences, Colorado State University, Fort Collins, CO 80523. For additional information by: Phone: 970-491-6144, E-Mail: <u>mip_apsearch@colostate.edu</u> or Fax: 970-491-0603

Veterinary Diagnostic Pathologist. The Mississippi Veterinary Diagnostic Laboratory in Jackson is seeking applications for a diagnostic pathologist. Responsibilities include providing results of diagnostic findings on a variety of species (primarily mammals) to veterinarians and owners. Strong communication skills are essential. Additional responsibilities for supervision of other laboratory operations will be dependent on abilities and qualifications. Qualifications include a DVM degree and residency or graduate training in pathology. ACVP certification or eligibility is desired. The successful candidate will be required to obtain a veterinary practice license in the State of Mississippi. Applications will be **accepted until March 1, 2002** or until the position is filled. Interested applicants should submit a letter of interest, curriculum vita and names and addresses of 3 references to: Lanny W. Pace, DVM, PhD, P.O. Box 4389, Jackson, MS 39296. PHONE: 601/354-6089 or FAX: 601/354-6209

Diagnostic Anatomic Pathologist: We are looking for a unique individual. We are a small, but growing private veterinary diagnostic laboratory located in the South of New Zealand. We require a second anatomic pathologist and seek an individual with skills and an interest in diagnostic pathology particularly production animal pathology. Preference is for a Boarded pathologist but board eligibility will suffice. The job involves considerable interaction with practitioners so good communication skills are required. The position is ideally suited to an individual looking for a job that allows an appealing lifestyle and who enjoys interacting with people. Labworks is located close to the cultural city of Christchurch. If you are a skilled outgoing pathologist looking for a job that combines challenging and varied work in a relaxed and friendly laboratory, please contact the Laboratory Manager: kerri@labworks.co.nz or phone 64 3 325 3635 or fax 64 3 325 3630

Veterinary Pathologist. Australia. A challenging opportunity for an experienced Veterinary Pathologist to work on the permanent staff in a Government veterinary diagnostic laboratory. The Laboratory is located at Orange, 3 hours drive west of Sydney. Orange is a large regional centre with a wide variety of schools, a University campus, sporting and cultural facilities. The laboratory is part of a substantial Agricultural Research Centre and services predominantly rural veterinary practices and Government vets working with production animals. The position offers an attractive salary. If you would like further details, contact Dr Graham Bailey Ph 61 2 6391 3870 Fax 61 2 6391 3858 or E-mail: graham.bailey@agric.nsw.gov.au Closing date for the position is **23rd November 2001**.

Veterinary Pathologist. The Oklahoma Animal Disease Diagnostic Laboratory (OADDL), College of Veterinary Medicine, Oklahoma State University (OSU) is seeking a veterinary pathologist for a position requiring 75% diagnostic service and 25% teaching/scholarly activity beginning February 1, 2002. Opportunity for a tenure-track appointment as Assistant Professor is available depending on qualifications. A DVM or equivalent degree and advanced training in pathology are required. Board certification by American College of Veterinary Pathologists (ACVP) is desirable. Candidates who have fulfilled training requirements for the ACVP examination will be considered. Additional preference will be given persons with MS or PhD degree. Principal responsibility will be diagnostic mammalian anatomic pathology. Reasonable expertise in avian pathology is also needed. Demonstrated interest in diagnostic pathology and good communication skills required. Qualified applicants should submit a letter of intent relating career goals, curriculum vitae, and three references to Dr. W. C. Edwards, Director and Chairman, Search Committee, OADDL, College of Veterinary Medicine, OSU, Stillwater, OK 74078. Application **deadline is December 15, 2001, or until position is filled**.

Veterinary Bacteriologist: Position is at the Ohio Department of Agriculture Animal Disease Diagnostic Lab as Section head of the Bacteriology Laboratory. Duties include section supervision, consulting with clients, diagnosis of bacterial diseases and developing molecular applications. Qualifications include a DVM or equivalent, completion of a graduate program in veterinary microbiology from an AVMA accredited College of Veterinary Medicine Candidates with board certification or eligibility in the ACVM are encouraged to apply. Candidates should submit curriculum vitae and names of 3 references with a letter expressing their interests and qualifications for the position to Dr. Beverly Byrum, Laboratory Director, Animal Disease Diagnostic Lab, Ohio Department of Agriculture, 8995 East Main Street, Reynoldsburg, Ohio 43068. Phone (614)728-6220, Fax (614)728-6310 or Byrum@odant.agri.state.oh.us.

Diagnostic Scientist: Boehringer Ingelheim Vetmedica, Inc. is seeking candidates to fill the position of Diagnostic Scientist within the Health Management Center (HMC), located in Ames, Iowa. The HMC Diagnostic Laboratory is a swine-focused diagnostic laboratory focusing on serologic and PCR detection of commercially important swine disease. This position will have frequent interaction with HMC personnel, veterinary clinics throughout the US, and internal veterinary and sales teams. A Bachelors degree in Microbiology or a related biological or animal science is required. Must be detail oriented with good organizational, interpersonal, and communication skills. A desire to work in an action-filled team environment is also preferred. BIVI provides an excellent salary and benefits package. For confidential consideration, please E-mail your resume and salary history to <u>vetmedica@bi-careers.com</u> **OR send to Boehringer Ingelheim Staffing Center, P.O. Box 534, Waltham, MA 02454-5340 OR FAX to 781-663-2431.** Including Job Code VM0108901 in your cover letter or subject line will help expedite your request and avoid delays in routing your resume.

Deputy Administrator, ES-01/601/602/701/1301, Salary Range, (\$120,261 - \$133,700 includes Locality). **Announcement Number:** FSIS-02-023 **Location of Position:** Food Safety and Inspection Service, Office of Public Health and Science, Washington, DC. **Closing Date:** January 14, 2002. **Contact:** Pattie M. Schulke, phone: (202) 720-6617,TTY: (202) 720-2442. (Relay services for TTY, call 1-800-877-8339. In DC area, call 202-855-1234.). The Deputy Administrator for the Office of Public Health and Science exercises full authority for the development of expert scientific analysis, advice, data, and recommendations on all matters of public health and science related to the Agency's primary mission of assuring food safety. Provides national leadership in public health and food safety, and in the collection, analysis, and dissemination of scientific information aimed at establishing and maintaining the regulatory basis for control-ling the incidence of foodborne diseases from farm to table.

Veterinary Virologist: The Animal Disease Diagnostic Laboratory, Ohio Department of Agriculture, is seeking applicants for the position of Veterinary Virologist to serve as Section Head of the Virology Lab. Duties also include interpreting test results, developing new diagnostic tests, consulting with clients and overseeing the quality assurance program. Program emphasis areas include poultry and swine. Qualifications include a DVM degree or equivalent and completion of a graduate program in virology from an AVMA accredited college, Ph.D. preferred. Candidates with board certification or eligibility in the American College of Veterinary Microbiologists are encouraged to apply. The successful candidate will have an interest and experience in applied molecular diagnostic techniques. Applicants should submit a letter expressing their interest and qualification for the position, a curriculum vitae and names of three references to Dr. Beverly Byrum, Laboratory Director, Animal Disease Diagnostic Laboratory, Ohio Department of Agriculture, 8995 East Main Street, Reynoldsburg, Ohio 43068. Ph (614) 728-6220, Fax (614) 728-6310 or email: byrum@odant.agri.state.oh.us.

Veterinary Diagnostic Virologist: The Animal Disease Diagnostic Laboratory (ADDL) and the Department of Veterinary Pathobiology of the School of Veterinary Medicine of Purdue University are seeking a well qualified veterinary virologist for an Assistant or Associate Professor tenure-track faculty position. This is a twelve month appointment. Qualified individuals must have a strong background in diagnostic veterinary virology and serology and publications in high quality peer-reviewed journals. Candidates must have an M.S. and/or Ph.D. degree; the D.V.M. degree or equivalent is highly preferred. Responsibilities will include oversight and development of the testing in the diagnostic virology and serology laboratory sections of the ADDL, research investigations of infectious diseases and teaching and consultation/research collaboration in the Department of Pathobiology. Applications will be accepted until November 15, 2001 or until the position is filled. Send letter of interest with a curriculum vitae, statement of research interest and career goals along with the names and addresses of 3 references to: Dr. Leon Thacker, Diagnostic Virologist Search Committee, Animal Disease Diagnostic Laboratory, Purdue University, 1175 ADDL, West Lafayette, IN 47907-1175. Telephone contact may be made at 765-494-7460 or e-mail at thackerL@purdue.edu.

Veterinary Diagnostic Product Development Scientist: VMRD, INC. Pullman, Washington, is seeking applications for a Veterinary Diagnostic Product Development Scientist. Responsibilities include performing research, design, and development of veterinary diagnostic reagents and kits for infections diseases; product quality control, product packaging, and market analysis with emphasis on the European marketplace. Minimum qualifications include Doctor of Veterinary Medicine degree; M.S. in Veterinary Microbiology specializing in propagation and serology of leptospires and brucellae, enzyme-linked immunosorbent assay technology, other serological techniques. Candidates should submit a letter of interest as well as a current curriculum vitae to: to D. Scott Adams, D.V.M., Ph.D., President, VMRD, Inc., 4641 Pullman-Albion Road, P.O. Box 502, Pullman, WA 99163 USA. Visit our web site at: VMRD.com

Assistant/Associate Professor of Avian Health (Veterinarian), Tenure track, 12-month (48-week) appointment. Department of Poultry Science, The Pennsylvania State University. This position has a 65% extension, 25% research, and a 10% teaching responsibility. The successful candidate will be expected to provide state and regional leadership in avian health programming through interactions and collaborations with industry, county-based extension agents and specialists, veterinarians, state and federal officials, and research faculty. Collaboration with Pennsylvania Animal Diagnostic Laboratory System in field-based diagnostic investigation services, as well as the development of an applied research program, including securing external funding and supervision of graduate theses, are expected. D.V.M. or equivalent degree, a master level degree (although a Ph.D. is preferred), and A.C.P.V. board certification or eligibility are required. Strong communication skills and a commitment to teaching are necessary. Applicants should submit a letter of application, resume, statement of extension, research, and teaching interests, academic transcripts, and the names and addresses of three professional references to: Dr. R. Michael Hulet, Chair, Search Committee, Department of Poultry Science. The Pennsylvania State University, 213 Henning Building, University Park, PA 16802-3501. CLOSING DATE: February 1, 2002, or until a qualified candidate is identified.

Graduate training in the Department of Veterinary Pathology, Western College of Veterinary Medicine, University of Saskatchewan offers two-year programs in diagnostic anatomic pathology, diagnostic clinical pathology, and wildlife veterinary medicine, leading to a non-thesis Master of Veterinary Science (MVetSc) degree. Research-based programs leading to MSc and PhD degrees are also available. A one-year Senior Residency is available to students who have basic diagnostic training and who are in their final year of preparation to write the board examination of the American College of Veterinary Pathologists or who otherwise wish to refine their skills in diagnostic veterinary pathology. Scholarship support, beginning at approximately \$29,000, is available on a competitive basis to veterinarians who are Canadian citizens or hold landed immigrant status. Applications should be submitted by January 15, 2002. Graduate programs normally begin on July 1. Contact: Dr. M.L. Jackson, Graduate Chair, Department of Veterinary Pathology, Western College of Veterinary Medicine, 52 Campus Drive, University of Saskatchewan, Saskatoon, Saskatchewan S7N 5B4. Phone:(306)966-7280, FAX:(306) 966-7439. E-mail: marion.jackson@usask.ca. Visit our web site at: http://www.usask.ca/wcvm/vetpath/index.htm

AAVLD FOUNDATION DONATION FORM

If you would like to become a Foundation donor fill out the form below and send with check or money order or VISA/MC information to: AAVLD Foundation, PO Box 1770, Davis, CA 95617 (donations are tax deductible)

Please accept this donation of \$______ as an expression of support in promoting Veterinary Diagnostic Medicine for unrestricted use.

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2002 Membership Application

Please send payments to: AAVLD, PO Box 1770, Davis, CA 95617 USA or Fax: 530-752-5680 Payments received after 1/1/02 will not be guaranteed all 6 issues of JVDI or inclusion in the membership directory.

Please complete all of the following fields. AAVLD is updating its membership database and we want to make sure we can communicate with you. Thanks!

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COUNTRY:			
PHONE:	FAX:		
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INTEREST:	DEGREES:		

NEW MEMBER: RETURNING MEMBER:

Memberships include 6 issues of the JVDI, reduced registration fees to the annual meeting, access to the AAVLD website including 3 issues of the newsletter and a membership directory. Memberships include 6 issues of the JVDI, reduced registration fees to the annual meeting, access to the AAVLD website including 3 issues of the newsletter and a membership directory.

Signature _____

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