

American Association of Veterinary
Laboratory Diagnosticians



December 2000

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2001 Executive Board

President.....	David Zeman
President-Elect.....	Pat Blanchard
Vice President.....	Terry McElwain
Immed. Past President.....	Bruce Akey
Secretary/Treasurer.....	Alex Ardans
North East.....	Beverly Byrum
South East.....	Fred Hoerr
North Central.....	Gary Osweiler
South Central.....	William Edwards
North West.....	Donal O'Toole
South West.....	Barbara Powers
Canada Provincial.....	Grant Maxie
Canada Federal, Ex-officio.....	W.D.G. Yates
Ex-Officio, NVSL.....	OPEN

President's Message

Dr. David Zeman

I trust that all who attended our 43rd annual meeting made it safely home and I hope that you are catching-up back in your laboratories. For those that did not attend, I hope this newsletter along with the published proceedings will provide you with useful information. A limited number of proceedings booklets are available for 10.00 each from the secretary/treasurer's office.

It is my privilege to serve as President of the AAVLD until our next annual meeting. As I expressed in Birmingham upon receiving the gavel, I feel very fortunate to be president at this particular time - positioned between dedicated outgoing officers and talented incoming ones. Congratulations to Dr. Terry McElwain, our newly elected Vice-president (barring any contest of the election). Welcome also to new executive board members Dr. Barbara Powers (SW region) and Dr. Donal O'Toole (NW region). We will miss retiring Dr. Art Bickford, who served us well as your Secretary/Treasurer since 1997; but we are again in good hands with Dr. Alex Ardans taking the reins.

This promises to be a very busy year for the executive board. Key business issues for this year include:

- Discussions with consultants relative to potential changes in the accreditation process. This is largely driven by the need to be prepared for international expectations of accrediting bodies.
- The feasibility of AAVLD developing "approved methods" to be used as standards and guides for routine activities in our laboratories.
- Development of a memorandum of understanding between state-supported labs and our federal partner, the National Veterinary Services Laboratory.
- Discussions with USAHA, relative to proposed streamlining of the USAHA meeting and mutual site selection issues.

Many of these issues will not be put to rest this year, but rather will be ongoing issues for the AAVLD for years to come. Solutions will require tapping the collective expertise of the membership via calls for opinions, special committees and task forces. However, such invested effort should make us an even stronger organization, better poised to serve the animal health issues of the public.

I agree with the general consensus of our invited speakers in Birmingham, that the future for veterinary diagnostic medicine is bright, but will also be challenging. I look forward to working with all of you this year. Holiday Greetings and a Blessed New Year on behalf of the entire AAVLD Executive Board and all of our support staff!

Future Meetings

February 11-15, 2001: **73rd Western Veterinary Conference**, Las Vegas, NV. Web: www.westernveterinary.org.

April 5-7, 2001: **Future Academy of Veterinary Consultants Meeting** in Omaha, NE

June 11-12, 2001: **42nd North Central Conference of Veterinary Laboratory Diagnosticians (NCCVLD)** will be hosted by the Veterinary Diagnostic Laboratory at the University of Illinois and held in Urbana, Illinois. **First request for titles with deadline of March 7, 2001**. Submit titles either electronically to eehrhart@cvm.uiuc.edu or by facsimile (217.244.2439). Official call for papers, registration and lodging information will be available on-line at www.cvm.uiuc.edu/NCCVLD and/or mailed under separate cover at a later date. NOTE: The C.L. Davis Foundation Meeting will follow the NCCVLD Conference this year.

June 27-29, 2001: **73rd Northeastern Conference on Avian Diseases** to be held at the University of Maryland, College Park, MD. For further information contact: Robert Heckert at email: rheckert@wam.umd.edu

July 4-7, 2001: **X International Symposium of Veterinary Laboratory Diagnosticians** in Salsomaggiore, Parma, Italy. The program will focus on traditional diagnostic laboratory disciplines as well as on food analysis, informatics and quality control. The conference language will be English. The joint OIE-WAVLD Seminar on Biotechnology will be on July 4th. Registration forms are available on web page www.newteam.it/XLAB2001 or via e-mail from newteam.parma@iol.it. **Deadline for abstract submission is February 15, 2001**. For additional information on the conference, please contact Dr. Carter or Dr. Eugster at (979) 845-3414. Also visit the newly created WAVLD website at www.wavld.org.

July 7, 2001 (begins): The **Society for Molecular Biology and Evolution (SMBE)** 2001 meeting will be held on the campus of the University of Georgia, Athens, Georgia. You are invited to submit a proposal for one of the symposia to be presented at this meeting. Each symposium will consist of two to three invited speakers and additional contributed talks. Proposals should consist of a brief description of the topic and a tentative list of invited speakers. Symposia proposals will be evaluated and final selections made by the meeting's organizing committee. Proposals should be submitted to Dr. John F. McDonald by post, FAX, or email. Dr. John F. McDonald, Professor and Head, Department of Genetics, Life Sciences Building, University of Georgia, Athens, GA 30602-7223. FAX: 706 542-3910. EMAIL: mccgene@arches.uga.edu

July 2001 (at AVMA convention): The Association for Veterinary Informatics (AVI) announces the **6th Annual Talbot Symposium on Veterinary Informatics and AVMA Computers & Informatics Program**: "Bringing practitioners, hospitals and staff into the 21st century with patient-centered systems". This year will focus on how computer and Internet technology together with informatics can increase the quality of patient care; provide educational enrichment and enjoyment for practitioner and staff; and also increase the bottom line of the practice. We invite papers and posters by clicking on AVI's New Website: <http://avinformatics.org>

July 26-28, 2001: **Future Academy of Veterinary Consultants Meeting**, Colorado Springs, CO

November 1-5, 2001: **AAVLD Annual Meeting**, Hershey, PA. Pre-meeting workshops held on November 1st. Tentative proposals for workshops on Anaerobic bacterial antimicrobial sensitivity testing, ISO 17025 Toxicology method harmonization, Risk analysis in diagnostic lab setting and CL Davis pathology are being planned. **Submission of abstracts deadline May 31, 2001**. Note: **USAHA meeting starts November 4 and ends Nov. 8**.

Call For Papers

AAVLD Annual Meeting, Hershey, PA. November 1-8, 2001

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. Avian, food safety and clinical pathology papers are encouraged to further develop the fledgling programs in these areas. Investigative case reports are especially encouraged. Presentations are limited to 15 minutes. **Deadline for Abstracts: MAY 31, 2001.** The AAVLD Program Committee will review abstracts and corresponding authors will be notified of acceptance by July 15, 2001. **FORMAT:** Send a hard copy and a disk with the abstract in Word 6.0 version or older, or Wordperfect 6.1 or older. All abstracts should be one page or less and format the body of the abstract with one-inch margins using Times New Roman 11-point font. Abstracts may also be submitted as an e-mail attachment in formats listed above. Abstracts should be accurate and complete. Statements such as "results to be discussed", are not satisfactory. Previous meeting proceedings should be examined for style.

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

Submit to: Dr. Pat Blanchard. California Animal Health and Food Safety Lab (CAHFSL). 18830 Road 112. Tulare, CA 93274. Ph: 559-688-7543, Fax: 559-686-4231. Email: pcblanchard@ucdavis.edu.

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

\$500.00 AAVLD Foundation Graduate Student Awards are given for best poster and best presentation.

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

Saturday Histopathology Slide Seminar

November 3, 2001, Hershey, PA, tentatively 6:30- 9:00 pm.

Short, interesting, and educational cases presented in an informal setting. Presentations should be no more than 5 minutes in length. A copy of abstracts will be available at the seminar. Please limit abstracts to no more than one single-spaced page in length. Presenters of accepted abstracts will need to provide a set of ~50 glass slides to the moderator by September 20, 2001 for distribution to accredited labs and other presenters prior to the conference. **DUE DATE for Abstracts: August 1, 2001**

Submit abstracts to:

Dr. Donal O'Toole
Wyoming State Veterinary Laboratory
University of Wyoming
1174 Snowy Range Road
Ph: 307-742-6638
Fax: 307-721-2051
Email: dot@uwyo.edu

OR

Dr. Bill Layton
Montana Veterinary Diagnostic Lab
PO Box 997
Bozeman, MT 59771
Ph: 406-994-4885
Fax: 406-994-6352
Email: blayton@mt.gov

Please send your abstract via mail, FAX or as an Email attachment to either chairperson. Format: MS Word 6.0 or WordPerfect 5.1 (DOS), 6.0, c.1. If sending by mail, include hard copy and a 3.5" disk in one of indicated formats. Authors will be notified of presentations accepted by August 20. If there are multiple authors, underline the individual who will be giving the presentation.

Diagnostic Bacteriology Case Presentations

November 2, 2001, Hershey, PA, 7:30- 10:00 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 mlibal@tamu.edu or phone 409-845-3414 by **September 1, 2001**.

AAVLD EXECUTIVE BOARD MEETING

Medical Forum E, 1:00pm-5:00pm

October 20, 2000 Minutes

Present: Drs. Patricia Blanchard, David Zeman, Jerry Heidel, Gavin Meerdink, Fred Hoerr, Bruce Akey, Gary Osweiler, William Edwards, Frank Galey, Art Bickford, Bill Yates, Terry McElwain, Doris Miller, Alex Ardans, Barb Powers, Grant Maxie, Beverly Byrum, William Buisch, Alfonso Torres, Stanley Snyder, Leon Thacker and John Kreeger.

1. The meeting was called to order at 1:20pm by Bruce Akey. He also introduced the new officers, Dr. Terry McElwain- Vice-President; Dr. Barb Powers- Southwest Representative; Dr. Donal O'Toole- Northwest Representative (not present); Dr. Alex Ardans- Secretary/Treasurer.
2. **APPROVAL OF MINUTES:** Dr. Zeman made a motion to approve the minutes from the July 22, 2000 Executive Board Meeting as written. Dr. Blanchard seconded the motion and it carried.
3. **TREASURER'S REPORT:** Dr. Bickford presented the Treasurer's Report for the 3rd quarter of 2000 along with a current fees schedule and an accrual accounting report.

GENERAL OPERATING BUDGET

Checking account balance on hand- January 1, 2000:	\$122,499.05
Total Operating Receipts:	\$138,747.25
Total Operating Expenses:	\$149,104.71
ENDING BALANCE SEPTEMBER 30, 2000:	\$112,141.59

AAVLD SECURITIES

Certificates of deposit as of September 30, 2000	\$27,645.75
Mutual Funds as of June 30, 2000 (the Foundation account is now a separate item)	\$167,494.86

TOTAL ASSETS ON HAND- September 30, 2000	\$307,282.20
Total active members as of 9/30/00: 1181	
Total subscribers as of 6/30/00: 206	

AAVLD FOUNDATION

Checking account balance as of September 30, 2000	\$22,505.30
Mutual fund as of September 30, 2000	\$45,283.34
TOTAL FOUNDATION ASSETS	\$67,788.64

AAVLD ACCREDITATION COMMITTEE

Checking account balance as of September 30, 2000	\$23,679.64
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There was general agreement to recommend a dues increase, to \$75.00 per year for full membership. Dr. Akey will present the request and supporting information to the House of Delegates at their first meeting, and a vote will be taken at the second meeting. A ¾ vote of approval is required.

4. **PRESIDENT'S REPORT:** Dr. Akey discussed the 10/19/00 seminar on ISO 17025 and accreditation standards from AALA. It was suggested that the association, possibly via the discipline committees, come up with "approved methods" for veterinary diagnostic tests that could be incorporated into the ISO standards. Dr. Zeman moved to have the Board appoint a committee (made up of the chairs of the discipline committees and a representative from NVSL) to determine the feasibility and possible processes in developing approved methods and to ask the discipline committee chairs to solicit input from their committee members. The Board agreed and Dr. Zeman will appoint a chair. The committee would be called the AAVLD Approved Methods Committee.

Dr. Akey mentioned that there are some existing guidelines and methods such as those by OIE and AOAC that may be used as a springboard for developing AAVLD-approved methods. After they are put together, the drafts will be sent to a final approval

committee. Since AALA (a U.S. ISO Accreditor) has not evaluated Veterinary Diagnostic Laboratories before, the AAVLD-Approved Methods could potentially be used by them. Dr. Bill Buisch of NVSL mentioned that development of these approved methods will be an opportunity to help raise the U.S. standard in the world market beyond the OIE requirements.

5. COMMITTEE REPORTS:

NVSL- William Buisch

Dr. Buisch distributed a handout addressing foreign animal disease suspect laboratory specimen submissions. He discussed the role of APHIS and of the State Diagnostic Labs in suspect cases and the need for further dialogue and cooperation. The Board suggested that FAD training for state lab diagnosticians continue, and that a list of all individuals that are FAD-trained be compiled.

Dr. Buisch updated the Board on NVSL activities including: the allocation of additional funds to upgrade the tuberculosis testing facility and hire more staff to meet the increased national needs and additional funding for the scrapie surveillance program. He provided an update on the NVSL/ARS facilities planning that is in progress for the Iowa facility with a DPP due to Congress by March 1. He also discussed the possibility of NVSL partnering with the state labs to create a "national plan" for veterinary diagnostics.

Dr. A. Torres extended an invitation to have an AAVLD representative attend the May 2001 OIE meeting.

Accreditation Committee- Leon Thacker

The committee has a new member, Dr. Ron Lewis from Canada. There are 37 labs/systems that are in various stages of the Accreditation process. Four labs are scheduled for site visits in 2001, and 10 in 2002. The committee has been extensively discussing ISO 17025, but recommends that the AAVLD Accreditation process continue as it is for the time being. Though changes in the worldwide market that affect vet diagnostic lab accreditation may be on the horizon, they will take a long time to be implemented. Representatives from the Executive Committee, Accreditation Committee and NVSL will meet with AALA representatives to see how AAVLD/NVSL and AALA can develop a joint accreditation process.

Dr. Zeman discussed two resolutions to be put forth to the HOD, as follows:

- Be it resolved that the AAVLD shall take steps necessary to cooperate with NVSL, as our federal partner in the US veterinary diagnostic lab system, for the purpose of maintaining and recognizing quality and competence in the performance of our duties. Such steps shall eventually result in a memorandum of understanding to be presented and considered for formal adoption to the 2001 AAVLD House of Delegates.
- Be it resolved that the AAVLD Accreditation Committee shall take steps necessary to establish the feasibility of utilizing ISO 17025 as the basis for accreditation of AAVLD labs, and the feasibility of an appropriate accreditor to act as the accreditor under AAVLD/NVSL advisement.

Dr. Blanchard moved to accept the first resolution, Dr. Zeman seconded, and the motion passed.


Dr. McElwain moved to accept the second resolution, Dr. Byrum seconded, and the motion passed.

(The final version, as amended by the House of Delegates meeting is as follows:

- Whereas, the AAVLD accreditation process needs to prepare to operate under world expectations and standards for accrediting bodies, and
- Whereas, the United States needs to present to the world a unified nationwide animal health diagnostic system which is currently comprised of state diagnostic labs and our federal partner, NVSL, therefore...
 - o Be it resolved that the AAVLD shall cooperate with NVSL as our federal partner in the US veterinary diagnostic lab system, to develop a national strategy for animal health diagnostic services. Such cooperation shall result in a memorandum of understanding to be presented and considered for formal adoption to the 2001 AAVLD House of Delegates.
 - o Be it resolved that the AAVLD Accreditation Committee shall investigate the feasibility of utilizing ISO 17025 as part of accreditation of AAVLD labs, and the feasibility of utilizing an appropriate accreditor to assist with accreditor responsibilities for AAVLD, under AAVLD/NVSL advisement.)

JVDI- John Kreeger

Dr. Kreeger gave an update on the development of a JVDI media packet by Allen Press. Initial ideas have been received from Allen Press and once they are approved, 100 packets will be provided to the Editor's office. Allen Press will also provide some suggestions as to where to distribute, appropriate markets, etc.



The Editorial Assistant has been fully trained and is now in a position to take on more responsibilities. Journal claims will be transferred to her responsibility as of January 1. She is also working to attract new JVDI Patrons.

Program Committee- David Zeman

There are 17 posters and 114 oral presentations in this year's program. The final plenary session is a special "future" session. There is also a food safety session that is combined with Avian. There are a total of 9 graduate student presentations and 4 grad student posters. For the special session, sponsorship funds were solicited, and acknowledgement of those contributors is on the inside back cover. Dr. Zeman recognized members of the program committee for their hard work in reviewing the abstracts this year.

Canada Report- Bill Yates

New Director of Animal Health and Production Division. The President of the Canadian Food Inspection Agency (CFIA), Ronald Doering, recently announced the appointment of Dr. Sarah Kahn as Director, Animal Health and Production. She reports to Dr. Brian Evans, Canada's Chief Veterinary Officer. Dr. Kahn was previously Assistant Director, Animal Quarantine Policy Branch, Australian Quarantine Inspection Service (AQIS), in Canberra, Australia. Dr. Kahn brings to the position significant experience in regulatory and veterinary medicine, public health, and international affairs over a twenty-year career.

OIE. During his recently completed term as President of the Administrative Commission of the OIE, Dr. Norm Willis led a strategic planning process. He reports that, based on directions and recommendations enunciated in the OIE Third Strategic Plan (2001-2005), the Central Bureau is preparing work plans for 2001. These are being developed under the direction of the current Director General, Dr. Jean Blancou, and by the newly elected, incoming Director General, Dr. Bernard Vallat. Dr. Vallat will assume his full Director General responsibilities as of January 1, 2001, and will serve for a five-year term.

The Administrative Commission will meet at the end of November to review and endorse the 2001 work plans, prior to implementation. Submitted by Dr. Yates, Canada-Federal Representative.

Newsletter- Patricia Blanchard

Total cost for the last issue was ~\$1100 which included ~275 mailed copies. As emails get returned "undeliverable" throughout the year, those people automatically go on the "hard copy" list. It was decided that the Executive Board minutes will be sent out as an email attachment before the newsletter goes out so they are not delayed waiting for committee minutes in December or Annual Meeting information in April.

Membership- Patricia Blanchard

Current 2000 membership is 1181. One goal of this year's committee that was not completed was to develop a letter to be sent to new members with a list of all membership benefits. It will move to next year's "to do" list. There was also discussion of putting the directory on the web and not producing a hard copy. The general consensus was that AAVLD should continue to publish a hard copy and also put it on the web. The directory will go back to the small format this year (8.5x5.5")

Credentials- Patricia Blanchard

Only one addition has been made since the list was published in August, leaving only 4 open positions of 62 delegates.

Nominations- Doris Miller

The Life Members and Pope Award will be announced on Monday, October 23 after the final speaker of the scientific session, along with the Graduate Student Award winners.

6. OLD BUSINESS

Communications Survey, follow-up actions. Dr. Blanchard reviewed actions that had been proposed since the July meeting, including the planned web-site updates, newsletter distribution, etc. There was further discussion regarding moving to a web-based journal. Consensus was that AAVLD is not ready to go to a web-only journal. There is still a plan to do a JVDI CD-ROM every 5 years.

The survey showed that now that AAVLD has gone to a web-based newsletter, the readership has dropped from when it was in hard copy. In order to insure members are informed of AAVLD business, the executive board minutes will be sent as an attachment prior to the newsletter.

7. NEW BUSINESS

Graduate Student/Retired/Associate Dues: Dr. Blanchard raised the issue of "other" dues categories and whether or not the dues amount should be recommended to be raised. It was determined that about 80-100 people would be affected by an increase in this category. Consensus was to recommend that these dues (currently \$25.00) remain the same for 2001.

Annual Meeting Issues: The meeting site has been an issue for a number of members and AAVLD must be active in the site selection process. Dr. Blanchard and Dr. Akey will bring the issue to the USAHA Executive Board Meeting to develop a memorandum of understanding on AAVLD's participation in the future.

Currently there are 5 or 6 committee meetings on Saturday evening and there have been complaints about meetings running from 8am – 10pm on Saturday. There is a proposal that the Saturday evening meetings move to the afternoon.

Suggested topics for next year's special session were discussed; possibilities include ISO Accreditation, Bioterrorism, Disease Reporting Nomenclature, Emerging Diseases. There was also discussion of having a workshop for the general membership that would cover ISO similar to the October 19 session.

AAVLD members requested we pursue the option of credit card payment for annual meeting registration in addition to on-line registration and dues renewal.

Dr. Akey provided a diagram outlining the new annual meeting schedule, which backs up the start day of the meeting and has only 1 day of major overlap between USAHA and AAVLD. He will get clarification from USAHA as to what USAHA activities will overlap. There is still concern about the "other allied" meetings listed as "heavy" on AAVLD days.

Publications: Congratulations to Dr. Kreeger on the success of JVDI- it has consistently been one of the top 10 or 12 journals out of 100 Veterinary Medical Journals cited in the "Science Citation Reports" The committee again discussed inclusion of abstracts in the Journal and there was consensus that they should not be included.

Randy Berghefer, programmer from ISU, demonstrated proposed web page updates such as an individualized password feature and newsgroup/message board that can be sorted by subject, member self-update of the directory, member search, and issues of JVDI with search functions. Dr. Meerdink requested approval from the board to purchase a server powerful enough to sustain all these new features. The computer would remain the property of AAVLD and the price for the necessary technical requirements is approximately \$3,600.00. Dr. Galey made a motion to purchase a new computer, approving up to \$3600, which was seconded by Dr. McElwain, and carried.

Charge for Informatics Committee- Dr. James Kruse had resigned as committee chair and Dr. Jim Case has been asked to assume the chair position. He requested a charge from the Executive Board. The committee deals with technical issues. They could look into the possibility of having a secure website so that workshop registration and membership renewal could be done via the web.

Long-Range Planning Committee was given a statement about SNOMED, LOINC and HL7 requesting AAVLD to recognize these as the data standards for terminology interchange. The Animal Information Committee will recommend AAVLD accept the statement. (See the House of Delegates 2 minutes, page 12, for complete text of resolution).

Dr. Zeman requested that the Board approve funds for two people that assisted him with the production of the proceedings. Dr. Blanchard moved to approve \$100 for gift certificates for two individuals, Dr. Maxie seconded and the motion carried.

Winter Meeting-The next Executive Board meeting will take place in conjunction with USAHA's Government Relations committee and executive board meeting held in mid-February in Washington, DC. The AAVLD meeting will probably be on Sunday afternoon, February 11. Board members are also invited to attend the full 3-4 days of scheduled meetings by USAHA with groups which include APHIS/VS, ARS, FSIS, FDA/CVM issues, Ag Coalition, AVMA government relations, etc..

Executive Board Minutes will be sent via email to all Board members for a brief review before finalized. Final version will be sent via email to all members and published in the newsletter.

Dr. Bickford discussed the "life membership" category and the possibility of recognizing past presidents in a formal manner. Dr. Zeman suggested that the awards committee be charged with seeing how such individuals can be recognized.

Meeting adjourned at: 5:13pm

Minutes of the AAVLD House of Delegates Meeting #1

Sheraton Hotel, Birmingham, Alabama

October 21, 2000

CALL TO ORDER: President Bruce Akey called the meeting to order at 11:05 am

ROLL CALL: Secretary/Treasurer Bickford called the roll of delegates from the states and provinces. With 41 state and provincial representatives present, a quorum for business was declared.

SECRETARY/TREASURER'S REPORT: Dr. Bickford presented the financial status of the Association as of September 30, 2000 with details as presented in the minutes of the Executive Board Meeting (see page 6). Dr. Bickford expressed his gratitude to the House of Delegates for the opportunity to serve the Association as Secretary/Treasurer for the past four years and noted the election of Dr. Alex Ardans to the Office effective with this meeting. He also noted that good progress is being made on meeting the new due date for dues (602 paid as of 10/20) and the strong likelihood that this will enable the office to issue a new directory by February of next year.

PRESIDENT'S REPORT: President Akey thanked Dr. Bickford for his service as Secretary/Treasurer and welcomed Dr. Ardans to the Office. Dr. Akey also expressed his gratitude to all officers, members of the Executive Board and Committee Chairs for a very productive year highlighted by two strategic planning sessions and a prioritized series of action items, most of which are completed. He also noted good progress in exploring collaboration with NVSL in applying ISO 17025 standards to the AAVLD accreditation process.

President Akey also reviewed long-term budgetary trends for AAVLD and noted the need for additional funds to support the offices of JVDI Editor and Secretary/Treasurer. He reiterated the recommendation of the Executive Board for an increase in AAVLD dues from \$50.00 to \$75.00 for full membership effective in 2002 and asked the House of Delegates to consider the matter for action at the Monday (October 23rd) meeting. There would be no dues increase for retired, graduate student, resident or associate member classes.

Dr. Akey then called for reports of the Standing and two Special Committees.

REPORTS OF STANDING AND SELECT SPECIAL COMMITTEES:

1. Accreditation Committee- Dr. Leon Thacker presented the report (see page 15).
2. Newsletter Editor- Dr. Patricia Blanchard presented the report.

Total cost for the August issue was ~\$1100 which included ~275 mailed copies. As emails get returned "undeliverable" throughout the year, those people automatically go on the "hard copy" list. It was decided that the Executive Board minutes will be sent out as an email attachment before the newsletter so they are not delayed and because the communication survey indicated there was a decline in readership of the newsletter since it is only available on the web to over 75% of members.
3. Program Committee- Dr. David Zeman presented the report (see page 8 in executive board minutes).
4. Publication Committee- Dr. Gavin Meerdink presented the report (see page 32).
5. Foundation Committee- Dr. Gavin Meerdink presented the report (see page 26).
6. Long Range Planning Committee- Dr. Willie Reed presented the report (see page 30).
7. Constitution and Bylaws Committee- Dr. John Andrews presented the proposed By Laws changes to be voted on October 23rd at the second House of Delegates meeting (see page 11)
8. Resolution Committee- Dr. John Andrews reported a consensus of Committee members that the Constitution and Bylaws and Resolution Committees be merged. He also brought forward two resolutions from the Accreditation Committee for consideration by the House of Delegates. These resolutions were read and after brief discussion (regarding wording changes), passage of both resolutions (as amended below) was moved (Dr. Ardans), seconded (Dr. Purchase) and passed.
 - Whereas, the AAVLD accreditation process needs to prepare to operate under world expectations and standards for accrediting bodies, and
 - Whereas, the United States needs to present to the world a unified nationwide animal health diagnostic system which is currently comprised of state diagnostic labs and our federal partner, NVSL, therefore...
 - o Be it resolved that the AAVLD shall cooperate with NVSL as our federal partner in the US veterinary diagnostic lab system, to develop a national strategy for animal health diagnostic services. Such cooperation shall result in a memorandum of understanding to be presented and considered for formal adoption to the 2001 AAVLD House of Delegates.
 - o Be it resolved that the AAVLD Accreditation Committee shall investigate the feasibility of utilizing ISO 17025 as

part of accreditation of AAVLD labs, and the feasibility of utilizing an appropriate accreditor to assist with accreditor responsibilities for AAVLD, under AAVLD/NVSL advisement.

OLD BUSINESS: None

NEW BUSINESS: Dr. Konrad Eugster reminded the House of Delegates of the 10th International Symposium to be presented by the World Veterinary Laboratory Diagnosticians Association in Parma, Italy July 4-7, 2001. The call for papers should be in the mail in about a month. General information should be available on their web page at www.wavld.org.

ADJOURNMENT: A motion to adjourn was seconded and passed and the meeting adjourned at 12:10 am.

Minutes of the AAVLD House of Delegates Meeting #2 Sheraton Hotel, Birmingham, Alabama October 23, 2000

Awards:

Dr. Doris Miller, Chair of Awards committee, presented the awards for outstanding graduate student poster and presentation. The presentation winner was Dr. Doug Horter from Iowa State University for his presentation titled: "Evaluation of PRRSV diagnostics in detecting persistently infected PRRSV carrier", and the poster winner was Dr. Matti Kuipel from Purdue University for his poster titled: "Coronavirus associated epizootic catarrhal enteritis (ECE) of ferrets".

Dr. Miller announced Dr. Alex Ardans as the recipient of the E.P. Pope award presented to an individual who has made noteworthy contributions to the Association and to implementation and recognition of the specialty of Veterinary Diagnostic Laboratory Medicine. Dr. Miller also announced the recipients of AAVLD life membership Dr. Louis Newman, Dr. Benjamin Pomeroy and Dr. Edward Bicknell.

CALL TO ORDER: President Bruce Akey called the meeting to order.

ROLL CALL: Secretary/Treasurer Ardans called the roll of delegates from the states and provinces. With 37 state and provincial representatives present, a quorum for business was declared.

Dr. Bruce Akey expressed appreciation on behalf of the Association to Dr. Arthur Bickford for serving as the AAVLD Secretary/Treasurer from 1996-2000.

The Presidential gavel was handed down from Dr. Bruce Akey, President 2000, to Dr. David Zeman, President 2001.

REPORT OF THE STANDING COMMITTEES:

1. Membership Committee: Dr. Patricia Blanchard (see page 31)
2. JVDI Editorial Committee: (see executive board minutes page 7 and publications committee minutes page 32)

OLD BUSINESS

Constitution and Bylaws: Dr. John Andrews

Changes to Article VIII, Sections 7 and 8, and Subsections A,B and C were proposed as follows:

Section 7. Program Committee. It shall be the duty of this committee to select papers for the Annual Scientific Meeting of the Association. The committee shall consist of the President-Elect, who will serve as Chairman of the committee, the ~~Vice-President and members of the Publications Committee~~ and other appointed members of the Association. Members will serve for one year and may be reappointed.

Section 8. Publication Committee. It shall be the duty and responsibility of this committee to act as an Advisory Board for all Association publications and to recommend editorial policies and appointments to the President, Executive Board, Executive Committee, and the House of Delegates. ~~In addition, as requested, the Committee will assist the Program Chair in the selection of papers to be presented at the Annual Scientific Meeting of the Association.~~

Subsection A. The Committee shall be composed of the editors of the *Journal*, Newsletter, Web page and Monographs and six (6) four (4) members at-large who shall be appointed by the President for a four (4)-year term. Appointments shall be arranged to allow at least one (1) new appointment each year. The initial appointments to the Committee shall be as follows: one (1) member for (1) year, one (1) member for two (2) years, one (1) member for three (3) years, and one (1) member for four (4) years.

Subsection B. The publications of the Association shall be the *Journal of Veterinary Diagnostic Investigation*, the Newsletter, Web page and other publications as approved by the Executive Board.

1. *Journal of Veterinary Diagnostic Investigation*. The *Journal* shall be published at least four (4) times a year. Articles for publication in the *Journal* shall be reviewed by the Editor and the Editorial Board of the *Journal*.

2. The Newsletter. It shall be the responsibility of the Editor and Editorial Board of this publication to prepare the Newsletter, which shall be published at least three (3) two (2) times a year.

Subsection C. The Editors and Editorial Boards of the various Association publications shall be appointed by the President for a term of three (3) years. Editors and Editorial Boards may be appointed to succeed themselves. One-third (1/3) of each Editorial Board shall be appointed or reappointed each year. The initial appointments to the various Boards shall be as follows: 1/3 of each board shall be appointed for one (1) year, 1/3 for two (2) years, and 1/3 for three (3) years. Each editor shall be appointed for a three (3) year term.

Dr. Gary Osweiler moved to accept the changes, Dr. Bruce Akey seconded the motion, and it passed without objection.

Resolutions: Dr. John Andrews

The following resolution was put forth to the Resolutions Committee by the Informatics Committee:

Concerning: Data Standards for the exchange of laboratory information

Whereas, Health Level Seven (HL7) has evolved into a standard for messaging in the exchange of animal health information; and

Whereas, the Systemized Nomenclature of Medicine and Veterinary Medicine (SNOMED) has evolved as a standard vocabulary for the transmission of health information; and

Whereas, the Logical Observation Identifier Names and Codes (LOINC) has evolved as a terminology of fully specified laboratory observation names for the exchange of health information therefore, be it

Resolved, that all AAVLD accredited veterinary diagnostic laboratories specify that HL7, SNOMED and LOINC be used as the standards for the transmission of data between laboratories, and be it further

Resolved, that SNOMED and LOINC vocabulary standards be expanded to include the vocabulary of veterinary laboratories for all disciplines, and be it further

Resolved, that AAVLD will encourage committee chairs to review and assist the standard setting organizations in expanding the vocabulary standards, and be it further

Resolved, that AAVLD request the USDA and other appropriate federal agencies support continued development of these uniform data standards and facilitate their establishment as a national standard with federal, state, local and industry veterinary laboratories.

The Resolutions Committee made a de facto motion, which was seconded by Dr. Harvey Gosser. There was brief discussion (regarding clarification of implementation and what "LOINC" refers to) then it passed without objection.

Proposed dues increase:

Documentation supporting the need for a dues increase was distributed and discussed at the 1st House of Delegates meeting on October 20, 2000. Dr. Bruce Akey moved to consider the increase, and motion was seconded and passed with no opposition.

NEW BUSINESS:

President Zeman announced that Dr. Alfonso Torres had invited the AAVLD to send a representative to the May 2001 OIE meeting in Paris. President Zeman will appoint a member of the Executive committee to fill this function.

A motion to adjourn was made at 12:30 and seconded.

Awards and Recognition



Dr. Matti Kuipel (left) accepts AAVLD Foundation sponsored Graduate Student poster award from immediate Past-President, Dr. Doris Miller for his Poster: Coronavirus associated epizootic catarrhal enteritis (ECE) in ferrets.



Dr. Alex Ardans is presented the E.P. Pope award for noteworthy contributions to the Association and to implementation and recognition of the specialty of Veterinary Diagnostic Laboratory Medicine.



Dr. Louis Newman, awarded Lifetime membership in AAVLD



President David Zeman (right) in his first official act, recognizes outgoing President Bruce Akey for his outstanding efforts on behalf of AAVLD with the presentation of a gavel and plaque of appreciation.



Dr. Art Bickford receives a plaque and the sincere thanks and appreciation of the Association for his service as secretary/treasurer of AAVLD from President Akey.



Dr. Terry McElwain, Vice-President



Dr. Donal O'Toole, Northwest Representative



Dr. Barbara Powers, Southwest Representative



Dr. Alex Ardans, Secretary/Treasurer and board members top to bottom: F. Hoerr, G. Osweiler, T. McElwain and F. Galey at executive board meeting.



Left to right: Immediate Past-President Bruce Akey, President Dave Zeman, President-Elect Pat Blanchard, Vice President Terry McElwain, Secretary/Treasurer Alex Ardans



Dr. Bruce Akey, outgoing President, chairs the AAVLD executive board session.



Right: Incoming President Dr. Dave Zeman

Committee Reports

AAVLD Accreditation Committee

Chair: Leon Thacker. Friday October 20, 2000, 8:10 am – 12:55 pm, Birmingham, AL

Called to Order – 8:10 AM. 19 members and guests were in attendance

Minutes of the July 22, 2000 meeting in Salt Lake City were reviewed and approved.

Welcomed new member Dr. Ron Lewis.

Accreditation Account Balances were reported by Dr. Bickford and approved by the board.

Site Visits 2000 -

- Wyoming – Full Accreditation, 5 years, all species granted.
- Washington State - Preliminary report – L. Thacker
- Oregon – Visit scheduled for November 2000.

Progress Report Updates

- Pennsylvania – Drs. Enck, Eckroade, Gallina represented Pennsylvania and presented a report of happenings to the committee in hopes to be considered for re-accreditation. See attached report.
The Board extended accreditation, for 1 year with annual updates. Next site visit in 2002.
- Connecticut – The Board agreed that they need to visit Connecticut but will grant a provisional accreditation to June 30, 2001 and at that time if Connecticut has not implemented the re-organization as outlined in letter sent to the Board October 4, 2000 they will no longer be granted Accreditation or provisional accreditation.
- Wisconsin – Drs. Brancel, Vorhies, Sorosi, Sher attended and presented their concerns and included an attachment. The Board thanked them for taking the time to present these in person. Last year the Board made recommendations to Wisconsin with deadlines and dates to be met. The Board feels that Wisconsin has achieved the recommendations that were given to them and with that, the Board has agreed to give Dr. Thacker authority to set up new markers for Wisconsin for the next year. A one-year provisional accreditation was granted.
- Dr. Lein presented a progress report from Cornell University, see attached.
- Dr. Thacker presented a letter he received from the University of Kentucky outlining the actions that they have taken to address the 14 recommendations the Board made for them last year. After reviewing this the Board has decided that Dr Thacker will go for an informal site visit. If perceived by the chairman of the committee that evidence of item #14 has been addressed they will be granted a one-year extended provisional accreditation.

Laboratories to be visited in 2001

- California – Drs. Andrews, Byrum, Reed
- Illinois – Drs. Miller, Maxie, Edwards
- Connecticut – Drs. McElwain, Lein, Sprowls
- Kansas – Drs. Powers, Ardans, Lewis
- AALA – Drs. Thacker and Galey to Washington D.C.

Discussion of AAVLD Accreditation future direction regarding ISO, 17025, ISO 58

October 19, 2000 there was an ISO meeting, which was very effective and informative. A video was made and will be copied by Dr. Zeman and distributed to lab directors. After this meeting during a brainstorming session two draft resolutions were proposed.

1. *Be it resolved that the AAVLD shall take steps necessary to cooperate with NVSL, as our federal partner in the US veterinary diagnostic lab system, for the purpose of maintaining and recognizing quality and competence in the performance of our duties. Such steps shall eventually result in a memorandum of understanding to be presented and considered for formal adoption to the 2001 AAVLD House of Delegates.*
2. *Be it resolved that the AAVLD Accreditation Committee shall take steps necessary to establish the feasibility of utilizing ISO 17025 as the basis for accreditation of AAVLD labs, and the feasibility of an appropriate accreditor to act as the accreditor under AAVLD/NVSL advisement.*

AAVLD Laboratory Administrative, Personnel and Management Committee

Chair: Pauletta King, October 21-22, 2000, Birmingham, Alabama

Five members and 11 guests were in attendance.

Chair Pauletta King called the meeting to order at 1:00 p.m. on Saturday, October 21, 2000.

The minutes of the October 1999 LAMP Committee meeting in San Diego, CA were distributed and approved.

Participants introduced themselves and described their positions at their respective diagnostic laboratories.

There was discussion on chain of custody standard operating procedures and the handling of legal/insurance cases. It was suggested that, unless SOPs on chain of custody can be strictly followed, it is better not to have one in place. This continues to be a concern and will be brought up again at future conferences.

Ralph Cobb gave a slide presentation of the Texas Veterinary Medical Diagnostic Lab at College Station. While all our labs are different, we find it useful and interesting to see the facilities and understand the procedures of other diagnostic labs.

Equipment insurance was discussed. Pauletta gave an update on equipment insurance at the University of Missouri lab. They are currently using Kemper Cost Management and have been satisfied to date. KCM has a low premium, but relatively high deductible. It is being suggested that they look at a package that was put together by the Midwest Higher Education Consortium in conjunction with CIC, Corp, which has a higher premium, but no deductible. Response time is an important issue not only with these insurance plans but with university self-insured plans as well. Future updates will be discussed at next years meeting in Hershey, PA.

Owen Schroeder gave an update on computer usage at the Breathitt Veterinary Center in Hopkinsville, KY. They are using the VisualLab package written by the Aurora System in conjunction with the Texas VMDL and are very satisfied. They also use scanners to input information. For example, EIAs are scanned and, after a period of time, are archived on a CD. The legality of archiving and reporting results via computer (without a signature) was also discussed.

It was discussed that microfilm and microfiche are the appropriate mechanisms for long-term archiving of information. The concern is that technology will become so advanced that we will be unable to retrieve items that are stored on a CD.

The University of Missouri lab has begun pre-printing accession forms sent to veterinarians with their name, address, phone numbers and account numbers. This helps to insure that cases are entered on the correct client. Other institutions indicated that they are doing something similar.

The group discussed various things that are being done on the computer that were done manually in the past, i.e. using Excel for organizational charts, tracking vacation, sick leave, comp time for lab employees, etc.

Computer training was discussed and the best approaches to make sure staff are adequately trained. For instance, Murray State has instituted a computer-training program for all lab employees. A computer lab has been set up using discarded equipment and computer personnel to train employees.

There was discussion about department's use of credit cards and the difficulty maintaining usage records. Purdue has one card for the entire department, but Missouri, for example, has given a card to each faculty member who has funds available.

A discussion took place on being aware of the threat of bioterrorism and animal rights groups. Some labs have recently experienced suspicious incidents that appear to be the result of one of these problem areas.

Pauletta King gave a slide presentation of renovations at the University of Missouri lab.

Linda Yankovich, Purdue University ADDL, was named Chair of the LAMP committee for the next three years.

We will communicate with lab directors who do not have representatives on the LAMP Committee and encourage their participation.

Animal Health Information Systems Committee of USAHA/AAVLD

Committee Co-Chairs: Dr. Bruce L. Akey, Richmond, VA, Dr. Francois Elvinger, Blacksburg, VA

The committee held its third annual meeting as a joint committee of USAHA and AAVLD on Sunday, October 22, 2000 from 1 to 5:00 p.m. Attendance fluctuated between 20 and 30 people during the course of the meeting, with 11 members present. Dr. Elvinger welcomed the attendees and gave a brief synopsis of the previous year's meeting.

Dr. Bruce Akey, Virginia Department of Agriculture and Consumer Services, provided an update on the continuing development efforts for a National Animal Health Reporting System (NAHRS). After last year's USAHA meeting at which concerns were raised about the potential negative effects on trade that participation in the NAHRS might have, a meeting was convened in Washington, D. C. in May of 2000 as part of an educational effort for the export negotiators of the poultry, egg and meat industries. In addition, the National Chicken Council was briefed on this issue in October. So far in 2000, some 30 states have submitted at least one monthly report, with an average of 24 states reporting monthly. With an export market in livestock, poultry and animal products reaching

\$11.3 billion annually, it is in the best interests of American agriculture to fully meet the requirements for transparency under the World Trade Organization agreements. The lack of a NAHRS in the past has resulted in a trade embargo on poultry exports to Russia as well as additional testing requirements being placed on poultry products being exported to Mexico.

Dr. Charles Beard, U.S. Poultry and Egg Association, followed with a review of the NAHRS program from the perspective of the poultry industry. He stated that there were concerns that the reporting of diseases might not be done on an equal basis by competing exporters and that importers might use an exporting country's report of a common disease as justification to suspend imports from that country. These measures are best countered by diplomatic queries about how the importing country knows it is "free" of the disease at issue. Reporting credibility is particularly important to the U.S. because its prompt scientific publications of disease research and clinical reports are read throughout the world. This makes failure to report disease or fallacious claims of disease freedom particularly damaging when an attempt is made to deny what trading partners already know is true.

Dr. Nora Wineland, USDA:APHIS:CEAH, presented a preliminary, qualitative assessment of the benefits and costs of a NAHRS program. Potential benefits would include reduced disruptions to existing trade, expansion of trade and the enhancement of animal health infrastructures. An embargo on poultry products in 1996 by one international trading partner, due to the lack of an effective and transparent animal disease reporting system, resulted in a price drop from \$ 0.44 in February to \$ 0.33 per pound of poultry legs in March, and it took until September of that year for the prices to recover. As a percent of production, U.S. pork exports increased from 1.6% in 1990 to greater than 6 % in 1998, U.S. beef and veal exports from 4.2% to close to 9%, and U.S. broiler exports from 6% to greater than 15%. With such increasing exports of U.S. animal products, the potential losses could be much greater. However, benefits of a reporting system are difficult to estimate given the difficulty in predicting future events.

The costs of implementing a national animal health reporting system are the costs incurred for data collection in excess of costs already incurred by diagnostic laboratories or other entities for presently ongoing disease surveillance activities. Some current reporting infrastructures allow reporting into a national system without significant additional costs. The greatest cost could be due to trade disruptions following reports of the discovery of a disease, agent, or condition through the national reporting system when there was no previous specific knowledge of occurrence of that condition in the U.S., or if information reported out of the system was used by importing countries in an effort to limit U.S. exports to those countries. Those benefits and costs must be carefully weighed and balanced when implementing a reporting system.

Ensuing discussion focused on the international acceptance of U.S. claims of freedom from disease, with attending representatives from trading partners re-emphasizing their preparedness to accept regionalization if a country offers the same guarantees for its exports that it requires of its imports. Additional discussion concerning the continued development of the NAHRS addressed questions of possibly reducing the scope of the NAHRS, either in numbers of diseases reported or number of commodities covered. The consensus was to continue to work toward reporting the complete OIE List A and List B diseases for all commodities with the goal of having all 50 states routinely reporting.

The draft Uniform Methods and Rules (UM&R) for the National Animal Health Reporting System was reviewed and unanimously endorsed by the Committee.

Dr. Mark Schoenbaum, USDA:APHIS:CEAH, reported on USDA's initiative to coordinate all surveillance efforts. As the prevalence of a disease changes, both the type and amount of surveillance for that disease change also. The Federal government will continue to play a role in coordinating surveillance among states and in setting standards for reporting data. Dr. Schoenbaum and Dr. Adam Grow have been tasked with conducting a review of APHIS:VS surveillance programs. Following the outcome of a review planning meeting in Estes Park, Colorado in August, 1998, and the publication of the Swine Futures Report in 1999, a working group was established (Adam Grow, Barry Meade, Vicki Bridges, Marty Smith, Tom Gidlewski, John Green, Mark Schoenbaum) which met in May, 2000 to develop a review plan. Surveillance/monitoring systems in the U.S. that already exist are very complex and multifaceted. The working group has thus far established a conceptual framework of APHIS' surveillance efforts as an ongoing system of collecting and reporting animal health data, subject to continual evaluation and adjustment. Actions should be taken based on data collected, employing various reporting and sampling tools to achieve this. Currently APHIS has different surveillance systems with different purposes. These could be integrated and streamlined resulting in cost savings and better communication. Surveillance implementation should be done at state and local levels with design advice from CEAH and policy development and administration by APHIS:VS. The working group will propose routine evaluation of surveillance systems, removal of ineffective ones and addition/integration of new surveillance efforts when appropriate. Veterinary Services has a long-term commitment to improve and streamline surveillance for animal health. It should be based on rapid detection, appropriate response to introduced/emerging diseases, promoting trade, improving efficiency and increasing knowledge of endemic animal health conditions. A possible pilot effort would be integration of Pseudorabies and Classical Swine Fever surveillance systems. No single position with oversight responsibility has been established yet.

Several attending State Veterinarians provided their perspectives on the needs for surveillance and reporting systems. The development of a Uniform Methods and Rules (UM&R) document for the NAHRS program was cited as pivotal to the effort to recruit all 50 states into the system. It was noted that like the NAHRS, the National Animal Health Monitoring System projects have undergone quite an evolution over the years too. There is a need to make sure surveillance mechanisms keep up with changes in industry production practices. The states need help with resources from the USDA to establish and maintain a surveillance infrastructure. This includes gathering requisite surveillance data to support requests for regionalization. The USDA must discontinue adding reporting requirements without deleting unnecessary reporting. Some surveys are requesting data with no explanation for the request. Another problem is requesting data from states when that data is available from other sources within the USDA. Another key issue is the need for individual animal ID to allow tracebacks as disease detection moves to reliance on slaughter surveillance,.

A resolution to request USDA:APHIS:VS to work with the USAHA/AAVLD Animal Health Information Systems Committee and utilize the expertise of other appropriate USAHA committees to evaluate, streamline and integrate all existing national animal health information surveillance systems as well as to provide support for surveillance systems necessary to enhance national and international trade was passed by the Committee.

Dr. Bill Buisch, USDA:APHIS:NVSL, provided information to the Committee on several issues. As part of a bioterrorism initiative, Dr. Gary Osweiler at Iowa State University is preparing a database of laboratory capabilities. The National Veterinary Services Laboratory (NVSL) is partnering with the American Association of Veterinary Laboratory Diagnosticians (AAVLD) to work together with state expertise more closely on Foreign Animal Disease (FAD) investigations and make sure that if an FAD is ruled out, a diagnosis is still made for the producer. The USDA is also considering adding state diagnostic lab personnel to Emergency Response Teams and is planning to increase FAD training opportunities for state diagnostic lab personnel. One example of this partnership could be allowing duplicate samples to be taken on FAD investigations with one set sent to NVSL/FADDL, the other held securely in the state lab for further diagnostics. Differential diagnostics could be started in the state lab if they have a BSL-3 suite or diagnostics on formalin-fixed tissues could be initiated while an FAD is being ruled out at the Federal labs. The NVSL needs to take on a bigger role in test validation and proficiency testing. The AAVLD has passed a resolution directing the development of a Memorandum of Understanding with NVSL to define a national animal disease diagnostic system. The NVSL is pursuing internationally recognized accreditation under ISO 17025. NVSL does not have the same capacity it had 10-15 years ago and therefore needs to work with state labs to develop the best system and approach for the livestock and poultry industries. The entire USDA:APHIS will be undergoing a "Safe-Guarding Review" under the auspices of NASDA to evaluate its efforts to protect animal agriculture.

A resolution was proposed and passed by the Committee for the United States Animal Health Association to urge Congress to appropriate the funds requested in the President's 2002 budget necessary to develop, construct and operate the facilities in Ames, Iowa, as described in the USDA Master Plan for the APHIS National Veterinary Services Laboratories, the APHIS Center for Veterinary Biologics and the ARS National Animal Disease Center.

Dr. Martin Hugh-Jones, Louisiana State University, College of Veterinary Medicine, explained the origins and development of the Project to Monitor Emerging Diseases or ProMED. The ProMED-mail electronic outbreak reporting system was inaugurated on the Internet in August 1994 to globally monitor emerging infectious diseases and acute toxic episodes. It covers humans, animals, and plants. It is the only outbreak rapid reporting system open to all sources and free of political restraints. It is not a government program. All reports are screened by expert Moderators before posting. In October 1999 ProMED-mail became a program of the International Society for Infectious Diseases, a non-profit professional organization with headquarters in Boston and membership around the world. ProMED reports of outbreaks are available through the Internet, either from the web page (www.promedmail.org), or as e-mail messages. The e-mail component is user configurable to deliver messages individually or as compiled digests and on all topics or only on the areas of interest (plant, animal or human). Subscriptions are free. Future initiatives include: addition of a more graphics intensive web site, multi-language forms to send reports in to ProMED-mail, maps with locations of outbreaks and expansion to include reports in additional languages (English and Portuguese versions are currently available). Also under discussion are embedded links for relevant prior postings in the e-mail and filtering, so that users have a decision on what topics they receive. Dr. Hugh-Jones stated that if you get your report in first, you have control of the story, everyone follows and responds to you. Dr. Hugh-Jones would like to know of any animal disease outbreaks or situations that are not being reported.

Dr. Mo Salman, Colorado State University, discussed monitoring/surveillance for disease agents when the incidence/prevalence of a disease approaches zero. A number of factors need to be considered when designing a strategy aimed at determining the absence of disease. Supporting disease claims as prevalence approaches zero requires a multifaceted approach. An international panel of scientists working in this field met in Fort Collins, Colorado in September 2000 (www.cvmsb.colostate.edu/cveadds). Participants tried to identify and discuss the issues involved in determining the disease status at a country or regional level, when prevalence approaches zero, discuss different methods and approaches used internationally for disease status recognition and provide a set of tools applicable to different epidemiological conditions. Participants outlined their approaches to these issues and made brief presentations. Presentations included both current application of the concept of disease freedom as well as methods being currently researched. Group discussions on three main topics followed the presentations. The topics were current needs in the international recognition of disease freedom, methods currently available to assess disease freedom both quantitatively and qualitatively and requirements for field application of existing methods and necessary modifications to existing surveillance and monitoring systems to assess disease freedom. Requirements that were identified included active surveillance (structured surveys), passive collection of data for a surveillance system, quality of veterinary services, geographical location and livestock movement history. Collaborative teams were formed to draft a series of papers that will be published as a special issue of Preventive Veterinary Medicine. Topics to be covered include user needs, surveillance methods, quality assurance of the system, data collection and analysis and maintenance of the system.

The 2000-01 Action Plan for the AHIS committee includes:

1. Continue development of the NAHRS project.
2. Work with the USDA:APHIS:VS to review, integrate and streamline the multiple surveillance systems currently employed.
3. Participating with the USAHA Animal Identification Committee in a workshop on the development of a national animal identification numbering system.

AAVLD/USAHA Aquaculture Committee

Chair: Skip Jack. 1:00- 4:30 pm, October 22, 2000, Birmingham, AL

There were 30 members and some guests in attendance.

Dr. Otis Miller, USDA-APHIS, reviewed some of the programs of USDA-APHIS regarding aquaculture. He would like for some members of this committee to review the VS Aquaculture Strategic Plan, (April, 1999) which USDA-APHIS has formulated. Dr. Jack asked for a subcommittee to review this document and provide feedback to the committee. Drs. J. Heidel, T. Baldwin, P. Parnell and R. White agreed to work on this subcommittee. Dr. Miller also provided a brief review of services provided by USDA-APHIS to the aquaculture industries as well as informed this group of the services that are not currently provided to this industry. Dr. Miller informed the group about Infective Salmon Anemia and its threat as an emerging disease to the net pen salmonids in the Bay of Fundy, in close proximity to Maine.

Dr. Scott LaPatra provided a report to the committee regarding the American Fisheries Society, Fish Health Section. Dr. LaPatra has been very active in this organization for several years. Dr. LaPatra provided an update regarding the certification program that would allow adequately trained veterinarians to be certified by this group as Fish Health Inspectors or Fish Pathologists. Dr. LaPatra also informed this group of the newer affiliate membership of the Fish Health Section.

Dr. Jack discussed two recent issues from the AVMA Aquaculture and Seafood Advisory Committee. This included information regarding the possible formation of an association of veterinarians involved in aquaculture. He also informed this group that this committee had recommended to the executive branch of the AVMA their endorsement of research initiatives from the Joint Subcommittee on Aquaculture.

Regional reports were given as follows: Dr. Tom Baldwin (Northwest) reported that they see a large number of cases of *Streptococcus iniae* infection in tilapia, while Bacterial Kidney Disease and Whirling Disease in salmonids continue to be a problem. Dr. Randy White (Midwest) discussed the research project involved with infectious pancreatic necrosis virus (IPNV) indicating that the field isolate obtained from a natural outbreak of IPNV in one of the state hatcheries a couple of years ago, does not appear to be pathogenic in age-susceptible, species-susceptible fish. Dr. Skip Jack (Southeast) reported on two new emerging diseases in farm-raised channel catfish, a trematode parasite which affects the gills and has snails as a part of its intermediate host and "visceral toxigenic syndrome", a disease characterized by intussusception and cholestasis.

Dr. Jack briefly discussed MUMS ("minor use, minor species") legislation. This is a bill that originated in the House, which, if approved, would allow veterinarians to use drugs, which were currently unlabelled for minor use and/or in minor species. The bill is pending approval of the US Senate.

Dr. LaPatra introduced a resolution requesting that the USAHA request USDA-APHIS to work together with EPA regarding the Joint Subcommittee on Aquaculture's Effluent Task Force Resolution. However, after much discussion, the vote on this resolution was tabled, primarily due to questions arising about the resolution.

The following mission statement of this committee was approved:

The AAVLD/USAHA Aquaculture Committee serves to foster cooperation and communication between aquaculture animal industries and regulatory agencies by providing a forum:

- *To discuss issues and exchange current scientific information regarding aquaculture species;*
- *To promote the development and application of quality diagnostic techniques for aquaculture species; and*
- *To serve in an advisory capacity to those agencies impacting aquaculture.*

Dr. Jack reminded the members that this was an "open committee" and to encourage its current membership to invite other AAVLD/USAHA members to join this committee. A list of the members present at this meeting is attached to the meeting minutes.

Dr. Randy White was voted the new chair of this committee, and Dr. Scott LaPatra was voted the new vice-chair.

Dr. Baldwin will draft a document on the issue of reporting fish diseases on a state and federal level for the next meeting.

The issue regarding standardization was discussed. It was agreed that the 1994 edition of the AFS/FHS, *Bluebook* was the current basis of standards for much of the activities of the committee members and that members were encouraged to provide information to AFS/FHS for updating this book as needed.

Minutes submitted by Randy White

Bacteriology Steering Committee

M. C. Libal, Co-Chair. October 21, 2000, 8:00 –10:00 pm, Birmingham, AL

Approximately 20 members and guests in attendance.

1. Subcommittee Reports

- A. Dr. Carol Maddox presented report on Bacteriology, Mycology, Mycoplasma Subcommittees--(attached).
- B. Dr. CC Wu gave report on Antimicrobial Susceptibility Testing Subcommittee--(attached).

- C. Dr. Glen Songer presented report on Anaerobic Infections Subcommittee–(attached).
 - D. No report from Mycobacteriology Subcommittee as they had not yet met (minutes attached).
2. Dr. Wu reviewed attendance (~50) and positive reception of the 2000 workshop on Reporting of Antimicrobial Susceptibility Testing.

It was decided that “Anaerobic Bacterial Susceptibility Testing” will be pursued as the topic for next year’s preconvention workshop. Drs. Glen Songer and Bill Fales will work on preparations for that event.
 3. Updating of QA/QC guidelines was discussed. This topic was already brought up in the BMM subcommittee meeting and we agreed on the review assignments made there (see attached).
 4. Dr. Wu gave an update on the AVMA sponsored antimicrobial resistance monitoring project. She will be contacting additional laboratories for assistance in accumulating strains for this project. This is detailed in AST subcommittee report.
 5. Assistance for laboratories who appear deficient on AAVLD check test.
It was decided that a venue was necessary for allowing labs to ask for and/or get help if they need it.
It was decided that next year’s contributors will be asked to provide more reference information in the “answers”.
 6. Johne’s Topics
Dr. Payeur reviewed results of the 2000 Johne’s fecal check test. She reiterated that no one culture procedure is being required by NVSL, however it is clear that centrifugation methods are performing better than sedimentation methods. She indicated that new broth based culture protocols like those described by Dr. Shin (see 2000 AAVLD abstracts) showed great promise for future.
 7. Future AAVLD Bacteriology Exercise/Continuing Education (formerly Check Test) –
Linda Shroeder-Tucker from NVSL has agreed to continue her critical role of preparing, shipping and quality control on specimens for this exercise.
 8. The new Co-Chair of BMM, Dr. Love, was announced. Dr. Maddox agreed to stay on as Co-chair for one year to assist Dr. Love.
 9. The new Co-chair of AST, Dr. Tewari was announced. Dr. Wu will stay on for 1 year to assist Dr. Tewari.

Bacteriology, Mycology, and Mycoplasma Subcommittee

Dr. Carol Maddox, chair. Friday, October 20, 2000, 8:00 – 10:00 am, Birmingham, AL.
There were 9 current members, 18 new members, and 17 guests present.

1. 2000 BACTERIOLOGY CHECK TEST RESULTS FORMAT SUGGESTIONS AND COMMENTS

The committee membership and guests suggested that the current scoring system might have been having a detrimental effect on the number of participants and the intended function as a learning exercise. It was suggested and approved by the majority that the next check test be returned with the expected response and comments but with no numerical score. It was further suggested that the name “Check Test” be dropped and renamed as a “Bacteriology Exercise” or “Continuing Education Program”. The format, 6 cases, contributed by the 6 graders and prepared by NVSL will remain the same. Linda Schroeder Tucker was thanked for her critical role in preparing, shipping and quality controlling the specimens for the cases. The May ship date with an August due date was felt to be satisfactory. Again, clarity of the instructions indicating the information expected for a complete response was discussed.

ELECTION OF NEW CHECK TEST COMMITTEE: The new members that have volunteered to submit cases and act as graders include: Karen Post, Brenda Love, Mitzie Libal, Beth Henricson, Kathy Strelow, and Deepanka Tewari, CC Wu.

2. WORKSHOP ON ANTIMICROBIAL SUSCEPTIBILITY REPORTING

A one-day workshop on the subject of antimicrobial susceptibility reporting was conducted in conjunction with the AST subcommittee. CC. Wu moderated and there were several invited speakers from NCCLS, FDA, Pharmaceutical manufacturers, and Veterinary Diagnostic Bacteriology Test Manufacturers including sponsors Trek, Biolog, Biomeruix, and ATI with approximately 45 participants.

Working groups for the development of selective reporting guidelines for AAVLD labs were created for SWINE, BOVINE, EQUINE, AVIAN, COMPANION AND AQUACULTURE AST results. They will address NCCLS, FDA, and production type and age considerations. A summary of the workshop was prepared by AST Co-Chair David White and will be available on the AAVLD Website.

A workshop on antimicrobial susceptibility testing for anaerobes was suggested for 2001.

3. Three copies of the 1999 Mycology workshop and copies of the 2000 workshop are available at \$25.00 each.
4. UPDATING AAVLD QA/QC GUIDELINES
It was felt that some of the current AAVLD Guidelines for Bacteriology QA/QC might be reexamined and amended prior to their acceptance by the AAVLD Executive Committee. Customers of commercial products felt the manufacturers had a responsibility to provide their QA/QC reports with the product. The expense to the labs for the additional kits or panels and the technical time required for the current levels of the QA/QC might be reduced for commercial products to a level necessary for QA/QC of the technical aspects that might vary on site.
 - A. COMMERCIAL MEDIA – most commercial media manufacturers were felt to be providing adequate QA/QC reports with the product.
 - B. Linda Schroeder-Tucker and Lori Van Maele will review QA/QC requirements for “In-house” prepared media.
 - C. COMMERCIAL IDENTIFICATION SYSTEMS – current recommendations will be evaluated by C. Maddox but seem acceptable.
 - D. COMMERCIAL AST SYSTEMS – will be reviewed by Sara Salmon and Ching Ching Wu.
 - E. KIRBY BAUER – DISC DIFFUSION SYSTEMS – will be reviewed by Mike Mael, Karen Post and Ray Hines.
5. STANDARDIZING SOPS – REQUEST FROM THE ACCREDITATION and EXECUTIVE COMMITTEES
Further clarification will be sought relative on the level of detail required by the Executive and Accreditation Committees, but the prevailing sense was that documentation of our operating procedures would be a guide to our use of acceptable protocols and need not contain the detailed protocols. Once the committees have provided a format, the chairs will confer to develop a strategy to provide the SOPs. The magnitude of this undertaking could be extensive due to the diverse responsibilities of the bacteriology sections.
6. ELECTION OF NEW CHAIR – Dr. Brenda Love of Penn State University was elected the new chair of the subcommittee. Dr. Carol Maddox agreed to continue her term for one more year during the transition. It was recommended that another co-chair be sought next year as the duties of this subcommittee, including the check test and workshop is so extensive.

Antimicrobial Susceptibility Testing Subcommittee

Co-Chairs: Drs. Ching Ching Wu and David White. 1-3 PM, Friday, October 20, 2000, Birmingham, AL.

1. Update on NCCLS VAST meeting and status and revisions of M31-A
Dr. White updated members on the current NCCLS activities which included NCCLS Working group reports: Currently there are 7 working groups under the NCCLS Subcommittee of Veterinary Antimicrobial Susceptibility Testing
 - A.) Intestinal spirochetes: To develop MIC testing on anaerobic intestinal spirochetes;
 - B.) Campylobacter: *C. jejuni* ATC33560 was previously selected as QC organism; Disk diffusion and broth dilution was reported to be unreliable; Agar dilution: M-H agar, supplemented with 5% defibrinated sheep blood was recommended and tentative QC limits for agar dilution was approved for Ciprofloxacin, Doxycycline, Erythromycin, Gentamicin, Meropenem, Nalidixic acid, and Tetracycline; Studies need to be repeated.
 - C.) Generic antibiotics: To develop interpretive guidelines for legacy or generic antimicrobial agents; currently working on generating 300 sheets of Gentamicin and Ampicillin Disk Diffusion and MIC data points; Need to recruit new members.
 - D.) Fastidious Pathogens: Develop AST methods for *H. parasuis* and *A. pyogenes*; Define growth conditions; Obtain field isolates; Define a QC strain.
 - E.) Anaerobes: worked on M11-A5 and it is in final stages.
 - F.) Editorial: Develop M31-T2 and M37-T2; Issue M31-T2 and M37-T2; hope to have next drafts available end of next year or beginning of 2002, please provide comments and suggestions on M31A or M37 to Tom Shryock.
 - G.) Aquaculture: No meeting occurred; No report.
2. Feedback from Full MIC panel users: Dr. Wu inquired about the usage of the new Trek's MIC panels for food animals. The overall response was good, however, sometimes the end point is not obtained.

3. Report on AVMA Judicious Antimicrobial Subcommittee proposal starting January 2001.
Dr. Wu reported to all members on the progress and planning of the antimicrobial surveillance program that's sponsored by AVMA and supported by AAVLD laboratories. She thanked the labs for their support and passed out a copy of the proposal and work plan. Fifteen labs will be supplying the isolates and five labs were selected to perform the testing. Purdue ADDL will assume the responsibility to bank the isolates, coordinate the project and analyze the data. This is the most economic and efficient way to achieve the goal. There will be a follow-up letter to individual participants/labs on sample collection, submission and testing. Additional members indicated interests in participating in this important program. The program is set to launch in January 2001. Anyone who is interested in supplying the isolates, contact Dr. Wu (wuc@purdue.edu).
4. Summary of the pre-meeting symposia on "Reporting Antimicrobial Susceptibility Results"
A one-day workshop on the subject of antimicrobial susceptibility reporting was conducted in conjunction with the Bacteriology Subcommittee. There were several invited speakers from NCCLS, FDA, pharmaceutical and veterinary diagnostic manufacturers including the sponsors. The workshop was well attended with approximately 45 participants including veterinarians, pathologists, microbiologists, laboratory technicians and industry representatives. Working groups for the development of selective reporting guidelines for AAVLD labs were created for swine, bovine, equine, avian, companion and aquatic AST results. Each group will address NCCLS, FDA, production-type and age considerations and generate selective reporting system for the assigned species and submit the final recommendation to Dr. Ching Ching Wu, the AST Co-Chair. Drs. David White, Carol Maddox and Ching Ching Wu will evaluate the information and distribute to all participants for feedback. The information will be used as references in the laboratory until further discussed in the 2001 AST meeting. Special thanks to the planning committee for this workshop: Drs. C. Maddox, T. Shryock, D. White, L. Hoffman, and C. C. Wu.
5. The members wished to have AST work with Anaerobic Subcommittee to explore the possibility of hosting a workshop on anaerobic susceptibility testing next year.
6. New chair(s) election: Ching Ching Wu agreed to stay for one more year as co-chair. Deepanker Tewari will start a three-year term. Dr. Wu and the committee thanked Dr. David White for his excellent service during his tenure as the AST Co-Chair.

Anaerobic Infections Subcommittee

Chair: Glen Songer. October 20, 2000, 10:00 – 11:30 am. Birmingham, AL

1. An ad hoc committee consisting of Karen Post, Bill Fales, Ching Ching Wu, and Mike Donahue will address the need for QA/QC guidelines. A QA/QC SOP manual will be developed for subcommittee comment. The initial version will appear on-line.
2. A possible anaerobic identification manual will be considered in the future.
3. There was considerable interest in the development of a workshop, for the 2001 meeting, on antimicrobial susceptibility testing of anaerobes. Given organizational approval, this will be planned.
4. Gerald Duhamel presented an update on intestinal spirochetes, including reports on an international meeting in Sweden and the IPVS meeting in Australia. Proceedings of the former will be published in Animal Health Research Review.
5. Chris Wilkins of Spiral Biotech introduced the topic of spiral plating for microbial quantitation and antimicrobial susceptibility testing.
6. Glenn Songer spoke on the emerging problem of *Clostridium difficile* infection in neonatal pigs. Response from the subcommittee and attendees suggested widespread experience with this condition.
7. Ching Cing Wu mentioned a possible problem with newer Bactron anaerobic chambers. Comparison of an apparently-fully functional chamber with incubation in anaerobe jars favored the latter. Subcommittee members were asked to observe and comment at future meetings.

Mycobacteriology Subcommittee

Chair: Charles Thoen (assisted by John Kaneene) , Sunday, October 22, 2000, 3: 00 to 5.00 PM, Birmingham, AL

There were approximately fifty-five people in attendance.

The following papers were presented at the Committee meeting.

- 1) Use of a vaccine to control Johne's disease in sheep in Spain- **J. F. Garcia Marin**, DVM, Ph.D
- 2) Estimating the sensitivity and specificity of *Mycobacterium avium* as *paratuberculosis* PPD skin test for detection of Johne's disease in sheep- **Suelee Robbe**, DVM, **Barbara Martin**, MS, and **Charles O. Thoen**, DVM, Ph.D. College of Veterinary Medicine, Iowa State University
- 3) Epidemiological Studies of *Mycobacterium bovis* in wildlife and Livestock in Michigan-. **John B. Kaneene**, DVM, MPH, Ph.D. Michigan State University
- 4) Transmission of *M. bovis* from experimentally infected white- tail deer to cattle- **Diana Whipple**, MS and **Mitchell V. Palmer**, DVM, Ph.D. National Animal Research Laboratories, Ames, Iowa.
- 5) *Mycobacterium bovis* infection in goats in Spain- **J. F. Garcia Marin**, DVM, Ph.D

Discussions:

The papers presented attracted lively and constructive discussions. The group was interested in the vaccination programs in sheep against *M. paratuberculosis* in Spain, with discussions centered around the efficacy of the vaccine and whether the vaccine would be a problem in the test process. The paper by Suelee Robbe et al., generated good discussions, and the Committee would hope that this work could be completed and information reported next year. There was great interest in *M. bovis* work in the dairy goat industry in Spain, specifically as to what can be learned from the goat study, and how this information can be applied to the goat and cattle industries in the US.

The paper about *M. bovis* in Michigan wildlife and livestock generated the greatest levels of discussion. The major points of discussion were on the current strategies and policies for eradication of *M. bovis* in Michigan, including strategies such as the reduction of deer density and elimination of supplemental feeding of free-ranging deer. The Committee wanted to know if a specific deer population density has been determined to be optimal, and what time it would take to achieve that density. Another major area of discussion was why the policy of testing and removal of reactor animals (as opposed to test and depopulate the whole herd) was being allowed. The Committee's view was clear that the test and removal of individual reactors will slow eradication efforts.

Report prepared by: John B. Kaneene, DVM, MPH, Ph.D

Enteric Disease Committee

Chair: Dr. Gerald E. Duhamel, Friday, October 20, 2000, 3:00- 5:30 pm

17 members and 8 new members were in attendance. Prior to the meeting, the Chair contacted each committee member and a current list of members that expressed an interest in continuing to serve on this committee was prepared. The current membership list was circulated along with a sign up sheet for any new members with an interest in serving on the committee. Seventeen existing members were present and 8 new members were added to the existing list for a total of 57 members.

1. Dr. Kenny W. Simpson from the Department of Clinical Sciences at the College of Veterinary Medicine, Cornell University presented an update on laboratory and clinical findings in dogs and cats with gastric infections caused by *Helicobacter* species.

Humans: Although *H. pylori* is present in 45-50% of US population compared with 90% in developing countries, only 1-6% develop ulcers. Persistent colonization over 25-30 years leads to 6 times more likely to develop gastric adenocarcinoma when 50-60 years of age. *H. pylori* colonizes throughout stomach but mostly antral portion.

Dogs: 100% prevalence: - *H. felis* - *H. bizzozeronii* - *H. rappini* - *H. salomonis* - *H. bilis*

Compared with *H. pylori* which is 2-5 mm, canine strains are larger 7-14 mm. Mainly present in fundus and cardia, but also pylorus where they cause glandular degeneration (vacuolization, pyknosis, necrosis), low grade inflammation, lymphoid follicular hyperplasia and minimal change in gastric secretory function.

Cats: 40-100% prevalence: - *H. felis* (only found in one laboratory colony); - *H. pylori* (rarely seen); - *H. heilmannii* (major but not culturable); - *H. pamentensis*

Mainly present in fundus and cardia where causes glandular degeneration (vacuolization, pyknosis, necrosis), low grade inflammation, lymphoid follicular hyperplasia. *H. felis* infection causes massive lymphoid follicular hyperplasia, mild gastritis and seroconversion, but normal gastric secretory function one year after oral inoculation.

No clear relationship to ulcers or neoplasms has been seen in dogs and cats.

Diagnosis: Impression smear of gastric mucosal biopsy stained with Diff Quick method is easiest and most accurate. Production of urease by *Helicobacter* sp. can be assessed by ¹³C breath test. Histologically, *Helicobacter* sp. demonstrated by silver stain. Amplification of specific sequences by PCR can be done from tissue specimens.

Dr. Patrick L. McDonough from Department of Population Medicine and Diagnostic Sciences at the College of Veterinary Medicine, Cornell University presented an update on laboratory diagnosis of *Helicobacter* species. Routine culture is difficult and might not always be required for diagnosis. Histopathology and urease tests may be sufficient in most clinical laboratories. Gastric

biopsies kept on ice in TSB or PBS are quickly taken to the laboratory for direct testing for urease and PCR, bacteriological and histopathological examinations. Fasting prior to collection of biopsy reduces bacterial contamination.

Bacteriological Culture: In a safety cabinet, streak for isolation onto TSA with 5% sheep blood and place in Mitsubishi jar with *Campylobacter* sachet. May add extra broth on 3rd quadrant with tuberculin syringe. Fill side reservoir of jar with water to keep environment moist. Incubate at 35-37°C for 3-5 days. Subculture even if distinct colonies are not visible. Most animal strains do not form discrete colonies like *H. pylori*, instead they grow as surface sheen that may take up to 10-12 days before becoming visible. When examining for growth, do it in less than 10 min. to avoid *Helicobacter* turning from spiral to coccoid forms by exposure to ambient air.

2. Dr. Connie J. Gebhart of the Division of Comparative Medicine at the University of Minnesota presented an **update on diagnosis of *Lawsonia intracellularis* infection in horses and pigs.**

Proliferative enteropathy (PE) is a common infectious disease that affects weaned animals of various ages. The disease is important to the pig industry, but has been described in many other species of animals, including hamsters, guinea pigs, rats, ferrets, foxes, horses, rabbits, deer, ostriches, and non-human primates. Recently, the disease appears to have been emerging as an important enteric disease of foals.

Clinical Disease: Variable clinical manifestations, including an acute form, called proliferative hemorrhagic enteropathy (PHE), and a chronic form called porcine intestinal adenomatosis (PIA) are seen.

Pathology: The pathognomonic lesion of PE in all animals and all clinical forms of the disease is the presence of many small, curved, intracellular organisms within the proliferative intestinal epithelial cells, as shown by Warthin Starry silver stain.

Etiology: The etiologic agent of the disease is *Lawsonia intracellularis*, which is an obligate intracellular bacterium. Identification of *L. intracellularis* as the cause of PE has allowed the recent development of specific antemortem diagnostic assays for PE.

Diagnosis: Conventionally, diagnosis of PE was based on the characteristic proliferative gross lesions seen at necropsy and on microscopic examination of the tissues. Gross lesions, however, are not specific for PE. Histopathology of tissues can confirm a diagnosis of PE. But the most specific and sensitive methods for diagnosis are PCR of ileal mucosa using specific primers and immunohistology of tissue sections using a specific monoclonal antibody. Immunohistology is more sensitive than silver staining because it reveals organisms in macrophages of the lamina propria during recovery from PE and also extracellular *L. intracellularis* in the necrotic debris or wherever the tissue morphology is destroyed. Unfortunately, a specific monoclonal antibody, which is not readily available, is required for immunohistology.

Several techniques are available for the detection of *L. intracellularis* infection in live pigs. Culture of the organism is not practical as it is an obligate intracellular organism. There are several PCR assays for specific detection of *L. intracellularis* in feces.

PCR Methods: The nested PCR assay is based on the amplification of a chromosomal DNA fragment of *L. intracellularis*. The amplified DNA is then reamplified with an internal set of primers to increase sensitivity and confirm specificity. This results in a very sensitive test, but carry-over contamination and false positive results are potential problems. A specific multiplex PCR procedure was developed involving the use of two sets of primers, one set targeting the same chromosomal segment as the nested primers and one set targeting a specific region of the 16S rDNA of *L. intracellularis*. This assay increases the specificity for detecting *L. intracellularis* because it involves two different targets and eliminates the need to confirm positive PCR results by reamplification or hybridization with a specific probe. However, this technique is less sensitive than the nested PCR assay. Recently, modified PCR assays based on the same sets of primers have been reported, including a multispecies-specific PCR, a PCR-ELOSA assay, and a hybridization capture PCR.

Limitations of PCR include the expertise and equipment needed and cost of performing the assays. Also, organisms may be shed sporadically from pigs with PE, thus limiting the sensitivity of PCR using fecal specimens.

Immunostaining Assays: *L. intracellularis* can be detected reliably in feces using an indirect antibody staining test. This is a standard laboratory procedure that is not affected by PCR inhibitors. However, this technique requires a specific monoclonal antibody and expertise in interpreting results. Also, like PCR, the technique lacks sensitivity for diagnosing subclinically infected animals.

Serology: Serological assays for detection of *L. intracellularis* antibodies in serum of pigs have been developed. An ELISA with purified *L. intracellularis* antigens from the gut had low sensitivity and specificity. The indirect fluorescent antibody test (IFAT) uses *L. intracellularis* cultured in enterocytes. The assay is specific because the fluorescing bacteria can be distinguished from background. An immunoperoxidase monolayer assay (IPMA) is a serological enzyme immunoassay that showed similar results as the IFAT using sera obtained from experimentally infected pigs. Experimentally-challenged animals begin to seroconvert at 2 weeks post-inoculation with 80% of the animals with titers ranging from 1:30 to 1:960 by 3 weeks post-inoculation. These titers decay rapidly, however. Sows in the field with the acute PHE form of PE have titers as high as 1:1920, which decay over a period of 16 weeks. Pigs in the field with the chronic PIA form of the disease have titers of 1:30 to 1:60. Serologic assays are effective for routine diagnosis of PE, although the systemic immune response of *L. intracellularis*-infected pigs is weak. Titers are generally low, especially in the chronic form of PE, and decay rapidly. The results indicate previous exposure, not necessarily current disease.

PE in Horses: PE is a newly emerging or newly recognized disease in horses. Many isolated PE cases have been confirmed at necropsy and 3 confirmed herd outbreaks were recently reported in Canada. The agent of PE in horses is phenotypically, antigenically, and genetically similar to the agent found in pigs. A retrospective study of paraffin embedded tissues from 3-12 months old foals with intestinal diseases submitted to the University of Minnesota between 1990-98 revealed 2/44 positive cases by immunoperoxidase staining for *L. intracellularis*. More recently, feces and corresponding sera from 47 foals with clinical signs of PE in the United States were examined using serological and PCR assays, respectively. 33/44 sera were positive at 1:30 to 1:240 compared with 0/77 normal

foals. 4/20 fecal specimens from affected foals were positive by PCR. Therefore, diagnostic tests developed to diagnose PE in pigs can be applied to suspected cases or outbreaks in horses.

Conclusion: PE is an important disease of pigs and other animals. Available assays for antemortem diagnosis of the disease will facilitate studies on the epidemiology and pathogenesis in pigs, horses, and other animals.

3. Wayne Chittick of Boehringer Ingelheim Vetmedica, Inc., Ames, Iowa presented an update on interpretation of ***Lawsonia intracellularis* serology in swine.**

A validated method of detecting *L. intracellularis* IgG antibody from swine serum using indirect fluorescent assay (IFA) is currently available through the diagnostic laboratory of Boehringer Ingelheim Vetmedica. The IFA method has proven to be specific and comparatively sensitive for detection of exposure to *L. intracellularis*. Based on experimental data, seroconversion occurs 2-3 weeks post-exposure. This assay may be used to determine timing of exposure within systems and to evaluate the effectiveness of control strategies.

4. Dr. Douglas G. Rogers of the Department of Veterinary and Biomedical Sciences at the University of Nebraska-Lincoln presented an **overview of intestinal *Chlamydia* infection in swine.**

Intestinal chlamydial infections are common in swine, and the prevalence of these infections increases after pigs are 3-4 weeks of age. Virtually all pigs have serologic titers to one or more chlamydial strains by 8 weeks of age. The majority of swine strains characterized thus far are phylogenetically related to human *Chlamydia trachomatis* strains. The swine strains are now known as the new species *Chlamydia suis*.

Results of several field surveys suggest that a majority of intestinal chlamydial infections are asymptomatic. However, gnotobiotic piglets fed chlamydiae originally isolated from diarrheic nursery pigs develop diarrhea and histologic lesions of villus atrophy, occasional villus necrosis, and lymphangitis/inflammation in the distal jejunum and ileum.

Weanling pigs infected orally at 21 days of age remain asymptomatic, but they can have watery cecal contents at necropsy. Histologic lesions in the young weanling pigs include villus atrophy and lymphangitis/inflammation in the ileum, and occasionally in the colon.

Weanling pigs infected orally at 5 weeks of age remain asymptomatic and do not develop significant lesions. Identification of chlamydiae as a cause of diarrhea and/or histologic lesions in young pigs will depend on ruling out all other causes.

Lymphangitis/inflammation together with villus atrophy and/or necrosis in the distal jejunum/ileum is consistent with chlamydial infection. Chlamydial antigen can be detected by immunohistochemistry, but detectable antigen in the distal jejunum and ileum decreases rapidly over time. However, chlamydial antigen is consistently detected in the colon. The use of fluorescent antibody techniques, amplification of specific sequences by PCR method or isolation of chlamydiae should be interpreted with histologic findings when possible.

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

Epidemiology Committee

Co-Chairs: Mark Thurmond and Francois Elvinger, 10 a.m. - 12 noon, October 20, 2000. Birmingham, AL

Four committee members and 9 guests (of which 3 requested to become members of the committee) signed in.

Discussion of **Mission of the Committee**

The committee membership proposed, moved, seconded, discussed and approved by unanimous vote a change to the mission statement from the previous year committee meeting (amendment in bold): 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.**

Discussions on the charge to the committee centered around the amount of resources expended for the collection and diagnostic work-up of case material without concerns and attempts to collect epidemiological information that is relevant for population-based diagnoses and interventions. The committee should provide support to laboratories in the development of population-based case histories: what is the minimum data that needs to be captured when a case is submitted, how are "cases" defined? Should personnel be trained and/or hired to consider the epidemiologic aspects of diagnostic work-ups?

Committee membership: Members should be sought by inviting all AAVLD members that list 'epidemiology' as their area of interest. Student membership should be encouraged by informing AAVLD student members about the benefits and needs of epidemiology in their diagnostic careers and inform associations and universities about our activities.

Seroepidemiology subcommittee: Given the topics of interest to the seroepidemiology subcommittee, the Chair of the Serology Committee explored the option of moving the subcommittee into the folds of the Epidemiology committee. The advantages were the type of expertise in the epidemiology committee would better fit the needs encountered in the area of seroepidemiology (i.e. population based aspects of use of serology and development of serologic tests), the disadvantages for the epidemiology committee was the concern of limiting the potential of epidemiology to only one diagnostic area, i.e. serology, and lose connection to other sections of diagnostic work, i.e. pathology, toxicology and non-serology microbiologic areas. After presentation of these viewpoints, a motion was advanced, seconded, discussed and accepted with unanimous vote to request the move of seroepidemiology committee into the epidemiology committee.

Possible activities / functions of the committee

At last year's committee meeting it was proposed that committee members should give presentations with epidemiology components in all scientific sessions, including the plenary sessions. This objective was only partially fulfilled, although all sessions had presentations with definite epidemiology components. A specific report on surveillance, monitoring and sentinel functions of veterinary diagnostic laboratories presented by Dr. Hietala, however, was assigned to the epidemiology scientific session, instead of the plenary session, where it would have reached the less-informed. The committee proposed a greater push for inclusion of this type of presentation for educational purposes into the plenary session.

An additional educational component to be explored was a poll of diagnostic laboratories (especially directors) on understanding and needs for epidemiologic support. The committee suggested a questionnaire and educational pamphlet be developed during the coming year with results of the survey presented at next year's committee meeting. This presentation may also be given in a general session and the Laboratory Directors' meeting. Calls for accreditation standards may be expanded to include generation of appropriate sampling protocols, which should be investigated by the committee and will be of great interest to directors.

Surveillance, monitoring and sentinel functions of diagnostic laboratories need to be properly defined, biases recognized, studied and controlled, and value of the diagnostic laboratory databases evaluated.

The membership proposed to explore the value and feasibility of a joint AAVLD/USAHA Epidemiology committee. Presently, USAHA does not have an epidemiology committee, and several USAHA but not AAVLD members attended our meeting. The pros would be the expansion of our interests and expertise, the cons would be the dilution of specific diagnostic laboratory interests and the possibility of losing AAVLD member attendance because of a greater number of conflicting committee meetings of USAHA. It was proposed that the co-chairs further investigate the possibility to be discussed at the 2001 annual meeting.

Finally, to enhance educational value the co-chairs were tasked to investigate value and feasibility, and organize a workshop on risk analysis in the diagnostic laboratory setting for the 2001 annual meeting.

AAVLD Foundation Committee

Co-chairs: Gavin Meerdink and Leon Thacker, October 20, 2000, 8:30 – 9:30 pm

8 members and 2 guests were present.

1. Financial report: The Foundation has 67,788.64 in the checking and mutual fund accounts.
2. The Funds Request Form was discussed and approved with minor changes.
3. AAVLD members were asked to provide feedback on how the Foundation funds should be spent. Responses from members primarily focused on support of student scholarships or training (externships, etc) opportunities and promotion of diagnostic medicine. Methods to promote student interest in diagnostic medicine were discussed. The consensus was to fund a "Careers in Veterinary Diagnostic Medicine" brochure. The approach and content will be developed followed by visual enhancements and layout for future review by the committee. Slide sets for use at veterinary colleges of similar promotional material was also suggested.
4. Ideas to increase contributions to the Foundation were discussed. One proposal was to list 2 active programs on the dues statements that members can donate to specifically. Also \$30,000 was the minimum level for a 'dedicated' or named award.
5. The Foundation has in recent years funded the graduate student awards for best poster and presentation at the annual AAVLD meeting. The Foundation unanimously approved doubling the amount of these awards to \$500 for each award to begin at the 2000 AAVLD meeting.
6. Also to further promote excellence in veterinary diagnostic medicine, the Foundation voted to present an award of \$1,000 to the best paper published in the Journal of Veterinary Diagnostic Medicine for a calendar year. The Awards committee will review the papers and select the best paper. Criteria for evaluation of the papers will be developed and the first award presented in 2001.

AAVLD Government Relations Committee

Chair: Bruce Akey, 5:00 – 6:00 pm, October 21, 2000

Ten members and 2 guests were in attendance.

Initial efforts of the committee were focused on defining the purpose or mission of the committee. The mission of the committee was determined to be three-fold: a) to serve as a recognized point of contact between federal agencies and the AAVLD; b) to monitor federal agency activities for issues that impact AAVLD members; and c) to facilitate technology transfer between federal agencies and AAVLD member labs.

Acting as a point of contact with federal agencies could include serving as a conduit for outbreak information updates, providing input on regulatory or funding issues as well as facilitating cross-jurisdictional cooperation between federal agencies and member labs. Improving communications between the AAVLD and the various federal agencies will be addressed by establishing e-mail distribution groups that include appropriate personnel from USDA:APHIS:VS, USDA:FSIS, USDA:ARS, FDA:CVM, CSREES, CDC, and possibly the FBI, DOE and DOJ.

Monitoring of federal agency activities would include establishing liaisons with other watchdog groups such as the NIAA and the AVMA's Government Relations Office to stay informed on proposed regulatory changes from FDA, USDA, EPA and others that would affect AAVLD members.

Facilitation of technology transfer would involve improving communication between federal research agencies such as the USDA:ARS and the AAVLD.

After additional discussion the committee decided to pursue the following Action Plan for 00/01:

1. Establish a Committee Listserv to include Committee members and Federal agency contacts.
2. Explore methods for technology transfer with USDA:ARS including an update at the annual AAVLD meeting by ARS personnel, either a general overview or an overview with additional detailed reports to appropriate committees. The Committee will also explore existing outlets for information on ARS activities to bring to the attention of AAVLD members more readily.
3. The Committee will invite representatives from the Federal agencies to attend the Committee meeting next year for a roundtable discussion on improving cross-jurisdictional cooperation on animal and zoonotic disease events.
4. The Committee will work with the NVSL to encourage the production and dissemination of reagents for WNV testing to veterinary diagnostic laboratories and the development of non-species specific testing modalities that could be applied in state/university veterinary diagnostic laboratories.

Informatics Committee

Acting Chair: Jim Case, October 20, 2000 3-5pm, Birmingham, AL

Jim Case (CA), served as acting chair since the current chair, Jim Kruse (MI), had notified the President of his resignation from the committee. There were 6 committee members and 15 visitors in attendance.

Following introductions, there was a discussion on whether the committee should retain its status as a full committee or downgrade it to that of a special interest group. Dr. Case stated that as a committee there is a need to generate products from the committee that would be of benefit to the AAVLD. While there is a need for the exchange of ideas and to discuss topics related to laboratory information systems or informatics, this is not sufficient to meet the charge of an AAVLD committee. The committee members voted 5-2 to remain as a committee and to define products for the group.

Dr. Case outlined programs that have recently had an impact on the need for diagnostic laboratories to provide information to agencies other than clients. These included the NAHRS and initiatives in the areas of food safety and bioterrorism. While 29 states are currently participating in the NAHRS program, only two laboratories represented at the committee meeting were actively participating.

Visitors expressed interest in investigating ways to improve the use of laboratory information to support epidemiological investigations and research. Difficulty in getting data from existing LIMS in a form that can be used for data analysis was generally viewed to be a problem, although some laboratories felt that they have developed methods to overcome this limitation.

Dr. Case presented a resolution adopted by the Association of Food and Drug Officials in June 2000 regarding three health information standards, Health Level Seven (HL7), the Systematized Nomenclature of Medicine (SNOMED) and the Logical Observation Identifier Names and Codes (LOINC) as those which are to be used in support of food safety electronic information exchange. He also stated that the AVMA and the CDC for use in electronic data exchange have endorsed these three standards. Dr. Case was unaware of any endorsement of animal health standards (other than animal ID) by the USDA or other animal health or agricultural organizations. Discussion ensued on whether the AAVLD should endorse the use of these standards. It was mentioned that in 1987 the AAVLD endorsed the use of SNOMED as the preferred terminology for standard representation of diagnostic laboratory information. However, very few laboratories have adopted SNOMED and attendees were unaware of recent changes in licensing and content. Recent negotiation with the SNOMED editorial board and the SNOMED authority have resulted in very favorable licensing fees for veterinary institutions. Details on the cost for the use of this terminology can be obtained from the Director of the Veterinary SNOMED secretariat, Dr. Jeff Wilcke (jjwilcke@vt.edu). Dr. Wilcke has also developed a very effective SNOMED browser that demonstrates the use and content of the standard.

There was considerable discussion on the usefulness of standardized data for pathology. It was felt by some that SNOMED was

too restrictive in its ability to represent the complex concepts associated with a pathologic diagnosis. Dr. Case briefly mentioned that the AVMA Subcommittee on Standards was developing a grammar and syntax for the use of SNOMED to represent these complex concepts. It is hoped that this would address this long-standing concern with standard terminologies.

It was felt by many present that the members of the informatics committee did not have the scope of knowledge needed to fully enhance terminology standards and that other committees within AAVLD would need to be involved in order to provide the information content needed for veterinary diagnostic laboratories.

Additional discussion resulted in a motion to adopt a resolution to be submitted to the AAVLD executive board (page 12-HOD2) endorsing the use HL7, SNOMED and LOINC by diagnostic laboratories for diagnostic laboratory data exchange.

Dr. Case opened discussion on developing a consortium of veterinary diagnostic laboratories that would seek to secure funding for development a standardized information model and tools that could be used for the development of veterinary LIMS software. Many laboratories are currently in development of or searching for existing LIMS software that meets their needs. It was generally agreed that smaller laboratories do not have the resources necessary to either develop their own systems or enhance the current software offerings to meet their needs. It was also generally felt, with some exceptions, that existing systems did not meet their needs with regards to data retrieval or analysis. With the increasing need for standardized reporting to support the initiatives listed above, it was felt that this proposal would provide substantial benefit to many laboratories and should be investigated further.

It was suggested that grant funded support for the development of LIMS software may be in direct competition with existing commercial packages. In response, Dr. Case stated that the effort would be to provide functionality that is currently not available in existing software, therefore there would be no direct competition. If commercial vendors were able to provide these functions, then there would be no need to go forward with this proposal. The group agreed on the need to develop a list of functional specifications. These could be provided to current vendors as those functions recommended by the AAVLD informatics committee, encouraging them to incorporate them into their systems.

Lab Directors Committee

Chair: Alex Ardans. 8:00- 10:00 pm, October 21, 2000. Birmingham, AL

1. Update on NVSL and ISO17025 meeting: Leon Thacker handed out the outline used for the Thursday, October 19, ISO17025 introductory training session by Ken Stoub. Ken had reviewed the AAVLD minimal essentials of accreditation and indicated there are many areas in agreement and the minimum essentials are a good start.
2. Foreign animal disease (FAD) investigation sampling and regional laboratories role: Dr. Bill Buisch, acting director for NVSL, presented the APHIS position on laboratory submissions for suspect foreign animal disease (FAD) investigations and future ideas and proposals. He reviewed current status and future areas for consideration regarding the following issues: 1. Should laboratory specimens from animals suspected of being infected with a FAD be submitted to state diagnostic laboratories for diagnostic purposes? 2. Should screening for FAD be permitted at state diagnostic laboratories? 3. Should paired laboratory specimens be taken by FAD diagnosticians and one set held for state diagnostic laboratories to use for differential diagnosis if the samples are determined not to have a FAD agent? 4. Should state diagnostic labs be involved in FAD investigations? 5. Should federal regulations be promulgated to require reporting to APHIS immediately any suspect or reported diagnosis of a FAD by state, federal or private laboratories? 6. Should federal regulations be promulgated to require new or different types of disease agents found in the United States be provided to APHIS upon request?
3. Reportable diseases (in-state and out-of-state): Leon Thacker discussed the need for laboratories to have a standard operating procedure for reporting of diseases to the appropriate authority in a timely manner for both in-state and out-of-state cases.
4. Shipping regulations: Don Lein stated that select agent licensing is still required but there is currently no fee associated with it as the fee was put on hold. Don asked whether AAVLD should push to get our accredited labs exempt from the fee for the future if it is reinstated. The proposed fee was \$15,000 per site and was suspended after input to CDC from AAVLD and others.
5. Caribbean veterinary laboratories: Michael Slayter gave an overview of his visits to various Caribbean labs at their request to provide them feedback on quality assurance/quality control, regionalization of testing, etc. (see article page 39)
6. Veterinary Science Resources update by Gary Osweiler is included below:

Veterinary Science Resources: A Complement to Federal Programs for Rapid and Comprehensive Response to Threat of Animal Pathogens
Gary Osweiler, DVM

A centralized federal laboratory, the National Veterinary Services Laboratories, USDA, APHIS operates to aid in detecting foreign animal diseases and those diseases targeted for eradication in the USA. In the face of a widespread or massive bioterrorist attack, their capabilities could be overwhelmed. Recently there is increased interest in better awareness of medical and veterinary medical first responders to bioterrorist agents. First responders could include local health professionals, public health departments and veterinary colleges and veterinary diagnostic laboratories. A system of state veterinary diagnostic laboratories is in place, they are dispersed nationwide so that one or more would be geographically close to any potential problem, and they are familiar with local or

regional problems. However, the laboratories are only casually associated with one another, and their methodologies may vary with respect to sensitivity, specificity and speed of completion. This nationwide group of laboratories or a select group representing regional/geographic dispersion could be organized and standardized to a known and acceptable level of performance for specific biological or chemical agents.

The Ames Laboratory - Department of Energy and the Federal Bureau of Investigation have collaborated to support a veterinary laboratory response capability that can serve a first responder and adjunct role for potential bioterrorist attack. Iowa State University has been engaged to develop a coordinated database and search engine to document veterinary laboratory capabilities as an aid to rapid field response to veterinary bioterrorism.

Specific Aims of the Project are:

- To identify and document diagnostic professionals with expertise relevant to defense or action against terrorism through use of animal pathogens, including people that have experience with potential agents and laboratories which conduct testing for such agents
- To identify capable and responsive veterinary testing laboratories in support of defensive actions against animal pathogen usage by bioterrorists.
- To explore formation of a Rapid Veterinary Field Response Network for bioterrorism agents, especially by documenting and cataloging testing capabilities of state veterinary diagnostic laboratories.

The expected outcome is to create a communication system among appropriate agencies and laboratories, followed by collection of as much information as possible on the type of testing available, the specific methodologies, documentation of quality control, precision, sensitivity and specificity. The database will be accessible to appropriate professionals and agencies and will be an initial primary factor in better organizing local resources against animal-related bioterrorism.

As the database and search engine were developed, a Focus Group meeting was convened in October 2000, in order to meet the three objectives outlined above. Attendees represented the sponsoring organizations, a range of appropriate federal agencies, and a representative group of veterinary diagnosticians from AAVLD Accredited laboratories.

The ISU VDL project is also collaborating with a related project at Louisiana State University, also involving development of a network function for veterinary diagnostic laboratories and which met with AAVLD advisors Thursday October 19, 2000 at the AAVLD meeting.

Action Items From Meeting

1. Project investigators (Osweiler, Hyde) will prepare complete report for delivery to advisors (focus group).
2. Advisors will e-mail, fax, or mail lists of pathogens/agents to Iowa State University (osweiler@iastate.edu; FAX 515-294-3564; Gary Osweiler, 2630 Vet Med, College of Veterinary Medicine, 1600 South 16th Street, Ames, IA 50011).
3. Advisors will suggest specific persons to be considered as experts in the various disease agents of interest. These suggestions should be sent to ISU (Osweiler).
4. ISU will compile proposed agents and provide consensus list to advisors.
5. ISU will identify potential animal industry or livestock group(s) to invite as part of future focus group meetings.
6. ISU will work during first quarter of FY2001 to implement various suggested improvements to the database and search engine.*
7. Copies of all new or updated screens will be sent to advisors.
8. ISU will arrange for 3-4 individuals to serve as beta testers of the updated database from within the focus group.
9. ISU will seek resources (references, databases, CD-ROM's) to link to the database and serve as background information for users who may want/need information on selected disease agents.
10. Advisors will suggest persons and/or agencies who should be able to access the collated data on testing capabilities of laboratories. Project sponsors will approve access.
11. Advisors may suggest different levels of access to information, subject to approval of project sponsors.
12. For this project, the database and search engine will be the principle means for supporting rapid field response to potential bioterrorism events involving animals.
13. After updating of the database and search engine, and approval by project sponsors and advisors, ISU will collect specific data from cooperating laboratories in order to populate the database. ISU will design a database entry format that will allow each participating laboratory to enter their information in a template and forward it to ISU for inclusion in the database.
14. ISU will develop a procedure/protocol for participating laboratories to continually update the database for the life of this project.
15. Combine the testing of this database in concert with other emergency exercises that may be conducted by USDA/APHIS, CDC, or others. ISU will seek these contacts and schedules through the appropriate agencies.

Laboratory Safety/Biological Waste Disposal Committee

Chair: Larry Thompson, October 22, 2000, 1:00-4:00 pm, Birmingham, AL

There were 20 members and guests in attendance. The Committee continues its function to provide a forum for exchanging information on laboratory safety related issues and concerns. The Committee continues to alert member laboratories to emerging safety concerns and regulatory actions which could impact animal diagnostic laboratories, veterinarians, and animal owners.

The Chair announced that, due to a change in job position, he would not be able to maintain the leadership role he has performed for the last several years and would step down as Chair of Laboratory Safety Comm. following the 2001 annual meeting.

One member laboratory reported a small bioterrorist-type incident that involved a specimen mailed to the laboratory. The incident was reported to local police and postal authorities, which have been slow to respond and fully investigate the incident. Member laboratories are reminded that in the event of suspected bioterrorist activity, the first contact should be with the Federal Bureau of Investigation (FBI), which has been designated the lead federal agency for all such investigations.

Several member laboratories reported on their general building and laboratory security procedures and physical upgrades to buildings to increase security. Some member laboratories, especially those associated with universities, have instituted a key card entry system and all employees must wear photo identification. Several concerns with "after hours" work in the laboratories were discussed with many member laboratories upgrading their building external lighting (eg parking lots) as well as requiring the "buddy system" for after hours work, requiring a minimum of 2 people present in laboratory.

The Committee discussed the OSHA Formaldehyde Standard and the requirement for monitoring formaldehyde concentrations to demonstrate that the workplace is under the action limit of 0.5 ppm. Depending upon location, some laboratories must dispose of spent formalin as hazardous waste while others can dispose of it down the sanitary sewer with copious amounts of water.

The International Air Transport Association (IATA) shipping regulations were discussed at length. While member laboratories are not responsible for packages that are shipped to them, they are clearly responsible to insure compliance on packages that are shipped out from their facility, especially if the shipment contains an identified infectious agent. Laboratories must provide a safe working environment for employees to open the packages that have been sent to the laboratory. Several member laboratories open packages within a chemical fume hood, which controls odors and will control fumes from, for example, broken specimen containers containing formalin. Both Guelph and Kentucky report a good response to information and training programs for clients on proper packaging of diagnostic specimens.

The Committee agreed that the AAVLD's "Veterinary Diagnostic Laboratory Guidelines for Radiation, Chemical, and Biological Safety" published in 1996 should be updated. It was decided that the format should be modified slightly in order to assist member laboratories in what should be included in a member laboratory safety program. References will be expanded and updated. When completed, the updated manual could also serve as a guide for the AAVLD Accreditation Committee in their inspection of laboratories.

Following adjournment of the Laboratory Safety committee, a meeting of the **Waste Disposal Committee** was held.

The US-EPA is scheduled to release emission regulations for pathological incinerators in November or December 2000. More member laboratories have expressed interest in the alkaline hydrolysis process for carcass disposal. There have been no drastic changes in the alkaline hydrolysis process, but technical improvements have occurred. The State of New York is in the process of requiring ash from prion suspect animals to be soaked in sodium hydroxide before disposal. This requirement is based on the suspicion that prions are not completely inactivated by the incineration process. It was noted that ash from known BSE animals in the United Kingdom is not handled that way, that present USDA regulations do not require it, and that the scientific literature does not indicate a need for sodium hydroxide or other treatment of the ash following proper incineration.

Long Range Planning Committee

Chair: Willie Reed. October 20, 2000, 10am-Noon, Birmingham, AL

Four committee members and four guests were in attendance.

The committee discussed the following agenda items:

1. **Update on recommendations proposed to the AAVLD Executive Committee in 1999.** AAVLD President Akey was in attendance and reported on the status of recommendations submitted in 1999.
 - a. Recommendation 1: Expansion of the scientific program to provide a home for epidemiology, companion animal and exotic animal testing, endocrinology, and clinical pathology. President Akey reported that the Executive Board agreed with the Long Range Planning Committee's recommendation and instructed the Program Committee to seek papers in the areas of epidemiology and clinical pathology. This effort resulted in the Epidemiology Section at this year's meeting. Overtures were also made to other disciplines during the year, such as clinical pathology, with the hope that they would join our scientific program. Efforts will continue to be made in the coming year, which should further extend the AAVLD's excellent scientific program. Expansion of the scientific program is viewed as an important benefit to AAVLD members.
 - b. Recommendation 2: Increase funding of the AAVLD Foundation. This issue was discussed with the current chairperson of the Foundation, but no new strategy to increase funding has been developed. There is an expectation that renewed efforts to

increase funding will be placed by the incoming President.

- c. **Recommendation 3: Provide financial support to regional meetings.** This recommendation was presented to the Executive Board and there was general support, but no action was taken.
2. **Update on the AAVLD strategic plan.** President Akey reported that, based on the Long Range Planning Committee's recommendation for 1999, a strategic plan for the AAVLD has been developed. Key items include the following:
 - a. Gain recognition of AAVLD accreditation as a viable, internationally acceptable, quality-based process for accreditation, in order to insure acceptance of work performed by AAVLD-accredited laboratories.
 - b. Implement programs to increase the pool of individuals interested in pursuing careers with veterinary diagnostic laboratories, in order to insure an adequate supply of future well-trained diagnosticians.
 - c. Centralize administrative functions, in order to provide continuity and improve efficiency of processes currently shared by a variety of committees and officers.
 - d. Promote and establish veterinary diagnostic laboratories as contributors to food safety, zoonotic disease, water and environmental pathogen detection and bioterrorism initiatives, in order to utilize their expertise.
 - e. Expand AAVLD income sources, in order to establish a strong long-term funding base for the organization and its programs.
 - f. Increase membership involvement in AAVLD activities, in order to accomplish organizational objectives.

The Long Range Planning Committee commends President Akey and the Executive Board for their swift action on the committee's recommendations and encourages the incoming President, Dr. Zeman, to place continued emphasis on implementation of the strategic plan as a top priority.

3. **Resolution from the Association of Food and Drug Officials.** The Long Range Planning Committee supports the objective of the resolution, which is to request appropriate federal agencies to support continued development of uniform data standards to facilitate data transfer and their establishment as a national standard with federal, state, local and industry laboratories. The committee recommends that this issue be referred to the appropriate AAVLD committee for consideration. (Informatics).
4. **AAVLD adaptation/compliance with OIE-ISO standards.** The Long Range Planning Committee feels strongly that the AAVLD accreditation process must comply with world expectations and standards for accrediting bodies, in order to retain respect and acceptance as the premier U.S. veterinary laboratory accrediting body. The committee supports the Accreditation Committee's efforts to investigate the feasibility of utilizing ISO 17025 as part of the accreditation process for AAVLD laboratories.
5. **AAVLD's involvement in bioterrorism/environmental disease/food and water safety issues.** The Long Range Planning Committee believes that the AAVLD must play a pivotal role in the national effort to combat bioterrorism and safeguard our water and food supply. The committee recommends that the AAVLD support efforts by Louisiana State University and Iowa State University in establishing veterinary medical diagnostic laboratory networks and documentation of the capabilities of U.S. veterinary diagnostic laboratories.
6. **Accreditation of Mexican and other South American veterinary diagnostic laboratories.** The Long Range Planning Committee believes it is important to open and maintain lines of communication between the AAVLD and diagnosticians/diagnostic laboratories in the Americas outside the U.S. Accreditation of laboratories in Mexico and South America must be studied carefully, and the committee recommends that the issue be reviewed by the Accreditation Committee.
7. **Annual meeting.** Several members expressed concern about the location and length of the current meeting and asked that the Executive Committee, in conjunction with the Program committee, continue to work with the U.S. Animal Health Association to provide the best possible annual meeting for AAVLD members.

Membership Committee

Pat Blanchard co-chair, October 21, 2000, 5:00 – 6:00 PM, Birmingham, AL

There were 5 of 7 members present.

1. The Committee requests the President appoint a Northeast representative to fill the open position in the membership committee.
2. Funding support for activities that increase AAVLD visibility and future membership were discussed. The Committee felt the Foundation committee plan to raise funds to support veterinary student externships was a good effort to increase the number of individuals interested in careers in veterinary diagnostic medicine. The committee strongly supports concurrently raising funding for a Foundation program to support graduate student travel. Dr. Paige Carmichael offered to work on developing a funding base for this program.
3. The results of the communication survey were reviewed. The committee recommends the Vice-President send an informational letter to new members addressing committee structure and activities, how to become involved in committees, web site access and structure, discussion list enrollment, AAVLD relation to USAHA, JVDI and newsletter frequency and annual meeting information.
4. AAVLD Strategy #6 "Increase membership involvement in AAVLD activities in order to accomplish organizational objectives". The Committee recommends officers, committee chairs and lab directors identify and encourage new members to become active in areas of interest within AAVLD. The Committee also recommends we solicit input from new members on topics and areas they would be interested in.

Pathology Committee

Chair: Paige Carmichael. October 22, 2000, Noon- 1:00 pm, Birmingham, AL

There were ~50 members and guests in attendance.

1. Two special reports were given: (1) Complex Vertebral Malformation by Dr. Dave Steffen: Dr. Steffen gave a description of lesions and incidence., and was followed by a report by Dr. Dick Nelson of the Holstein Association on methods of reporting cases and procedure and protocol for handling undesirable recessives. Links to breed associations can be found on www.naab-css.org. Dr. Donal O'Toole expressed difficulties in dealing with some breed associations re: confidentiality issues (2) Dr. Kelli Boyd reported on the efforts at UGA to standardize mast cell tumor diagnostics grading system and the implementation of AGNOR staining and Ki67 staining to increase prognostic capabilities website www.vet.uga.edu/vpp/mct.
2. The committee discussed developing AAVLD approved methods in pathology. The discussion centered around the fact that much of what pathologists do is "subjective". There was some discussion on which tasks are specifically those of a pathologist. The criteria for approved methods and the detail at which these methods should be stated was also discussed. The committee decided that the first step would be to define the tasks of a pathologist then to assign a subcommittee to outline the suggested specifics of each task. It was also the opinion of the committee that this would be a lengthy (several years) task and would meet with significant non-compliance.
3. Committee membership: A list was circulated to the attendees so that those who considered themselves members of the committee could sign in. This list will be submitted as the current committee membership.
4. Histopathology slide conference: Committee chairs reported on the success of the conference. There were approximately 70-80 attendees and 16 presentations. The chairperson, Dr. Pam Parnell indicated that there would be several changes next year including the change to an earlier deadline of July 15th. Presenters will also be required to submit a set of glass slides with each accepted submission. These slides will be collated by the chairs and sent out to each accredited Diagnostic Lab. Dr. Pam Parnell was selected as the coordinator for publishing the conference on the AAVLD web site annually. Dr. Bill Layton was elected as the next conference co-chair to assist Dr. Donal O'Toole, the conference chair for next year. There was discussion of moving the conference to an earlier time. The committee concluded that an earlier time on Saturday would be acceptable, however a move to Sunday would not be acceptable.
5. Feedback on microscope usage: The consensus of the committee was that the microscopes were underutilized and especially in the face of security issues, they may not be necessary at future meetings.
6. The Pathology committee agreed to sponsor a CL Davis pre-symposium at a future meeting on an as-yet-undetermined topic. The membership of the committee was asked to submit ideas on topics to the committee chair. One suggested topic was "Tumor grading and Classification". The cost of the pre-conference was also discussed and appropriate inquiries will be made to the Foundation.

Publications Committee

Chair: Gavin Meerdink, October 20, 2000, 8:00 - 10:00 am.

Seven members and 3 guests were in attendance.

Journal of Veterinary Diagnostic Investigation Editor: Dr. John Kreeger

Journal statistics: Science Citation Reports, Journal Impact Factor Listings reveals that the JVDI is one of the top 10 cited out of about 100 veterinary medical journals. The rate of acceptance for manuscripts is ~60%.

The issue of publication of abstracts in the Journal was raised once again. The committee consensus was that the abstracts should not be published in the Journal. The Journal is more the product of the Association and its members; whereas, abstracts, informational or discussion in nature, are directed toward information of value to the members. Worthy abstract items can be published in the Journal as papers. Another option for abstracts is to acquire ISSN listings from National Library of Medicine.

The committee decided to maintain the production of CD-ROM discs of every 5 years of the Journal for reasons of portability and low cost for the members. Since the Journal arrives from Allen Press as a PDF file, index functions will be added for the CD-ROM's.

AAVLD Newsletter Editor: Dr. Pat Blanchard

From the communications survey, adoption of the HTML format (v. PDF) was suggested. Though HTML does have desirable features, PDF is used because of its file size conservation and searchability features. The survey also indicated fewer people read the Newsletter now that it is principally web based. About 275 hard copies are still printed, the rest are delivered via the Website with email notification.

In the last year, committee reports have been published on the Website under their own header. This allows for easier access to current and past years and for more details of the meeting than space allowed in the Newsletter. Thus, two slightly different reports may exist for the same meeting.

AAVLD Website Dr. Gary Osweiler

Randy Berghefer, Webmaster, demonstrated potential upgrades to the Website. These included: Password: Admission to the secured portion of the Website will be changed from the generic codes of the past to individual login identifications and passwords. Users will first be identified by their e-mail address; then establish their own password. News Group: An open-to-all-members message board has been developed which will allow the open discussion of common interest topics. The discussions can be segregated by topic. The transfer of images has not yet been developed. A Membership Search function by name or location has been added to the secure site. All JVDI issues will be on-line and can be searched and retrieved with Adobe Acrobat Reader. Free text queries by Boolean expression (with some modification) will be an added feature to the Website.

Additional discussions of the Website included the recommendation that job listings be published for 60 days and then discarded. Also, organizational headings will be coalesced to simplify travel through the Website.

The committee recommends that the Executive Board direct the purchase of a computer capable of handling the ever-growing requirements of the AAVLD Website. It is understood that this would remain the property of AAVLD should the site be moved elsewhere in the future.

Manuscripts Editor: Dr. Fred Hoerr

No manuscripts have been received for publication. The committee encourages the web publication of written AAVLD materials, particularly the Safety Manual and Essentials for AAVLD Accreditation on the Website.

Serology Committee

Chair: Sharon Hietala, 4:00- 6:00 pm, Friday, October 20, 2000

Reporting – Peter Wright

Eight committee members and 140 guests were in attendance

1. The Committee received one request for technical review of a commercial EIA ELISA test method. The product received a favorable review.
2. The following companies Biocor, Centaur/Viral Antigens, Diachemix, Idexx, Symbiotics and VMRD provided updates and noted that several new reagents/kits are currently being evaluated by USDA for licensure, including a modified PRRS ELISA, several avian/poultry ELISAs and an Anaplasma ELISA. NVSL noted that with the commercial availability of the Anaplasma kit(s), they would no longer supply reagents for Anaplasma serology. A BLV ELISA (VMRD), Johne's ELISA (Biocor) and EIA cELISA (Centaur) have been licensed.
3. NVSL representatives reported the results of the 2000 Leptospira MAT check test had been received but not analyzed. The summary will be available in early 2001. They clarified the sheep and goats Johne's serology test is not a check test but a reference panel of sera. A new check test panel for PRV has been sent to laboratories to replace an incorrectly coded panel which has delayed reporting of the 2000 PRV check test results. The national results for Bluetongue and EIA check tests were reported. NVSL also announced two new check test panels for 2001: PRRS and Vesicular stomatitis virus SVN. Labs interested in these check test panels should contact NVSL.
4. The Serology Committee sponsored a half day, pre-meeting symposium entitled 'Test Method Validation and Standardization' on Thursday, October 19. Workshop coordinator was S. Hietala and speakers included P. Wright, R. Jacobson and I. Gardner. Attending the course were 45 pre-registered and 20 walk-in participants. Post-course feedback was very favorable and positive.
4. Serology Sub-committee activities and/or modifications were presented. The Sub-committee on Minimum Standards presented a draft Glossary of Terminology to all those in attendance with an invitation to provide the Sub-committee with comments, additions or corrections. The purpose of this Glossary is to provide a uniform definition of scientific and technical terminology for the development of future documents and guidelines. A Sub-committee was being considered to address issues related to Seroepidemiology; however, after discussions with the co-chairs of the Epidemiology Committee, it was decided to these issues might be better addressed through their Committee. No update was given on the activities of the Sub-committee on Unusual Tests as J. Evermann was unable to attend.
5. Based on a request from the Executive and Accreditation Committees, the Serology Committee will discuss and draft a proposal for the development of technical requirements for the evaluation of test methods to be considered as AAVLD-approved test methods.
6. The last order of business was introduction of the incoming Chair (Peter Wright) by the out-going Chair (S. Hietala). The current Committee members wish to thank Dr. Hietala for her leadership and enthusiasm years.

AAVLD Veterinary Analytical Toxicology & Mycotoxins and USAHA Environmental Committees

Co-chairs: Anant Jain and Dave Reynolds. October 21, 2000, 7:30 – 10:00 pm. Birmingham, Alabama

Twenty-seven members and guests were in attendance.

Anant V. Jain, Co-Chair of the combined Committees opened the meeting and presented the mycotoxin report. This year, various members of the committee were assigned geographical areas to collect information regarding mycotoxin incidence in U.S. and Canada. Thirteen out of 18 members submitted their findings as follows.

The following is a summary of results obtained from various geographical areas.

- Alabama, Georgia, Florida, Mississippi, South Carolina and Tennessee. Aflatoxins: highest level of aflatoxin in diagnostic samples was 100 ppb in corn. The incidence was very low. DON, fumonisin, T-2 and zearalenone. There were no positive samples reported for these mycotoxins. Survey results: Dr. David Wilson, College of Agriculture, University of Georgia, Tifton, GA conducted a survey of the occurrence of mycotoxins in Georgia. For the survey corn samples from 43 counties were collected just prior to harvest and analyzed for mycotoxins. The range of aflatoxins in corn was 1 to 530 ppb. However, only 4 samples were above 10 ppb. This, the incidence of aflatoxins is low. Sixty seven percent of samples for fumonisins were in the range of 0.1 to 16.5 ppm. Out of these only 30.2 % of samples were above 1 ppm. Fourteen samples had no detectable levels. .
- Colorado, Utah, Arizona. In Colorado, their diagnostic laboratory does not test for mycotoxins since they had not seen a positive case in last 10 years. No information was available from Utah and Arizona.
- Wyoming, Idaho and Montana: No particular problems encountered this year with mycotoxins.
- North Dakota, South Dakota and Minnesota. Reference is made to Dr. Howard Casper's presentation at the scientific session, the abstract is on page 45 of the abstract book
- Iowa: No particular problems encountered this year.
- Texas and New Mexico: No particular problems with aflatoxins. However, there was an outbreak of fumonisin from corn screening from a particular area.
- Kentucky and West Virginia: Highest level of aflatoxins was 80 ppm in corn. Twenty-six samples of corn contained more than 5 ppm fumonisin. No information was available from W. Virginia.
- Virginia, N. Carolina, Maryland and Delaware: For all practical purposes, mycotoxins were a non-issue in these states.
- Illinois and Wisconsin: Out of more than 350 diagnostic samples for aflatoxins, 35 contained more than 100 ppb. Four samples contained more than 1000 ppb. All samples for zearalenone and T-2 toxin were negative. Vomitoxin and fumonisins were encountered in several samples. The concentration range was 0.9 to 1.5 ppm and 1 to 50 ppm respectively.
- Michigan, New Jersey and Rhode Island: In Michigan and New Jersey, the diagnostic laboratories test a very small number of silage and forage for mycotoxins. Agriculture departments do not gather information regarding incidence. It was reported that most of the mycotoxin assays are done locally at feed mills and grain elevators.
- Indiana, Ohio and Pennsylvania: Out of 192 diagnostic samples in Indiana, 7, 9 and 18 samples were positive for aflatoxin, fumonisins and vomitoxin (DON) respectively. In Pennsylvania, very few diagnostic samples were received for mycotoxins. There were two cases of fumonisin toxicosis in horses. No information was available for Ohio.
- No information was available from the following states and Canada: California, Nevada, Oregon, Washington, Nebraska, Kansas, Louisiana, Oklahoma, New York, Connecticut, Maine, Vermont and New Hampshire.
- Some members reported that most of the mycotoxin tests are conducted at the local feed mill and grain elevators. Thus, it is hard to know what is going on in the field. Thus, the chair of the committee (A Jain) requests direction from the Executive Board of AAVLD, as to how to gather the information from local feed mills and grain elevators.

The survey also requested information regarding the most frequently encountered toxicants at various diagnostic laboratories. The following is the summary of most frequently encountered toxicants.

Small Animals: Anticoagulants, strychnine, ethylene glycol, carbofuran and timik
Large Animals: Organophosphates and carbamates, lead, arsenic and nitrate

Dr. Randall Lovell of FDA, CVM reported on the status of the guidelines setting process for fumonisins. There will be guidelines for fumonisins levels in the near future.

AOAC Liaison, Mr. Frank Ross, reported on the two draft resolutions from AAVLD (HOD page 10) and the concept of AAVLD approved methods. The committee endorsed the ideas and indicates their willingness to participate in the proceedings.

Dr. Bert Mitchell, FDA, CVM, presented: Belgium Experience and preparedness of our laboratory system," under the auspices of USAHA Environmental Residue Committee. A separate committee report was filed by Dr. Reagor and Meerdink for this committee.

Three toxicology cases were also presented.

Virology Committee

Chair: Ed Dubovi, October 20, 2000, Noon – 4:00 p.m. Birmingham, AL

In attendance were 27 members and 45 guests.

West Nile Virus:

Dr. Eisner reported on activity in New Jersey with an emphasis on equine cases. The efforts in New Jersey were complicated by an outbreak of eastern equine encephalitis virus. Dr. Eisner found the HI test for WNV antibodies as a very useful screening test, but the availability of antigen (suckling mouse brain derived) from the CDC was an ongoing problem that limited testing.

Dr. Ostlund reported on WNV testing at NVSL with an overview of the national situation. She reviewed the testing procedures being used to confirm field cases including PCR, IgM capture ELISA, plaque reduction VN, and immunohistochemistry (IHC) and indicated that detection of WNV in equine cases was not as easy as in avian cases. A nested PCR test was developed to increase sensitivity for detecting WNV in equine cases. The test details can be obtained from Dr. Ostlund. IHC testing with equine samples missed approximately 50% of the positive cases. The committee commended Dr. Ostlund for her efforts in support of the WNV effort.

Bovine Viral Diarrhea Virus:

Dr. Ridpath reviewed experimental infection data that used various techniques to detect acute BVDV infections. Direct contact with persistently infected (PI) animals may be the most common method of transmission, however, BVDV outbreaks in herds without PI animals are frequently observed in the field. The mechanism of transmission in these herds is unknown, but may involve contact with acutely infected animals. Detection of acute BVDV infections and differentiation from persistent infections is important in both the epidemiology and control of BVDV outbreaks. Detection of acute BVDV infections, by two methods commonly used to screen for PI animals (IHC on skin biopsies and PCR/probe of serum) were compared. Sixteen calves, tested free of antibodies to BVDV, were infected with one of 6 different BVDV isolates (two BVDV1a strains, two BVDV1b strains and two BVDV2strains). All animals developed clinical signs of infection (elevated temperature, WBC drop and/or platelet drop) and 14/16 animals seroconverted by day 14. Ear notch, serum and buffy coat samples were collected on days 0, 4, 9 and 13 post infection. Ear notch samples were fixed or frozen for IHC staining using Mab's prepared against the Erns or E2 viral protein. PCR was done using RNA prepared from serum samples but not buffy coat. Virus isolation (VI) was done on buffy coat samples to determine if animals were replicating the virus. None of the acutely infected animals tested positive by IHC on ear notch samples. Three animals tested positive by PCR on at least one of the post infection samples. All animals tested positive by VI on at least one of the post infection samples. Zero day samples and all samples from four control animals tested negative by all three tests.

Dr. Saliki reviewed various factors that could affect the isolation of BVDV from clinical specimens (cells used in the isolation procedure, number of passages, type of specimen, sample preparation). An issue that was discussed more extensively was the effect of freeze/thawing mononuclear cells (MNC) prior to inoculating cell cultures. Data are not available to definitively prove the detrimental effects of freezing MNCs coming from blood containing BVDV antibodies. Also emphasized was the relative sensitivity of different cell lines and one must be careful in comparing virus isolation data from different laboratories.

Dr. Hietala led a discussion of using pooled PCR for detection of persistently infected animals. The benefit of using pools of whole blood for herd screening was presented. Pooled sample testing can be cost-effective when used to screen herds for BVDV PI using RT-PCR (with the same primers as Dr. Ridpath). The pooled sample screening provides a sensitivity of 98% and specificity approaching 100%. In validation studies involving 14 herds, ranging from 160 to 3900 animals, the PI rate ranged from 0 to 2.2%, mean of 0.5% per herd.

Dr. Yousif reported on another PCR test format using luminescent beacon tagged to the probe to detect and verify the presence of BVDV specific PCR products. With the use of specific primers and probes, the presence of BVDV can be detected as well as a determination of the genotype of the virus. Specific details of primer sequences can be obtained from Dr. Yousif.

Dr. Brodersen opened a discussion on the use of immunohistochemistry (IHC) to detect persistently infected animals. His lab has been working on validation of IHC on formalin-fixed paraffin-embedded skin biopsies as a method to identify cattle persistently infected with BVDV. Comparisons were made among IHC, microplate-ELISA on sera, and conventional virus isolation on buffy coat. The specimens originated from 19 herds with a total of 313 animals older than three months of age. Of the 313 calves tested, 63 were positive by IHC and 49 of the 63 were positive on an initial microplate-ELISA using serum. Thirteen of the fourteen discordant calves were proven to be truly persistently infected by subsequent testing either by virus isolation and/or microplate-ELISA. One of the 63 calves was negative on two subsequent attempts at virus isolation using buffy coat. Two hundred fifty of the 313 calves were negative by both IHC and microplate-ELISA. BVDV antigens were not detected in skin of calves experimentally infected with BVDV. Of more than 20,000 specimens received at the Nebraska Veterinary Diagnostic Laboratory, approximately 1% were positive for BVDV by IHC.

Dr. Yoon also discussed IHC in comparison to a commercial antigen capture ELISA test. Results of commercial BVD antigen-capture ELISA revealed a good agreement with virus isolation results on serum and tissues but not on buffy coat. Using VI as gold standard, the specificity of ELISA was estimated to be 100% regardless of sample type. The sensitivity of test was between 90 and 100% on serum and tissues. For buffy coat, the sensitivity of ELISA is about 50%. Analytically, commercial antigen-capture ELISA can reliably detect BVDV antigen in samples containing 3 or higher logs of BVD virus. Samples containing between 2 or 3 logs of virus may

fall into gray zone. A concern expressed was that performance of the assay may not have correlated with infectivity titer due to design of the assay. In a preliminary trial in collaboration with University of Nebraska, IHC was shown to be much more effective in detecting PI animals than acutely affected animals. In principle, none of the acutely affected animals were positive for BVDV by this method. In a field trial, IHC on ear notches collected from newborn calves had a good correlation with antigen ELISA on serum and VI on buffy coat. It was found that ELISA can be used to detect BVDV antigen in nasal swabs, although results may be affected by poor sample collection. However, no BVDV was detected by virus isolation, ELISA and IHC on any of dams of BVDV positive calves. SN test suggested that those dams were exposed to type 2 BVDV during pregnancy. In contrast all positive calves were serologically negative. Collectively, IHC on ear notch and antigen-capture ELISA would be good ante-mortem tests for detecting PI animals; yet results have to be interpreted with caution. Obviously repeated testing is required to confirm PI status.

Dr. Brock reviewed his experiences in dealing with PI animals and herd testing. He indicated that testing was not the whole story in the control of BVDV and that management procedures needed to be changed to effectively control BVDV.

Dr. DuBovi reported on the use of bulk tank milk testing for detecting PI animals among lactating cows. The Diagnostic Laboratory at Cornell does a PCR test as well as a virus isolation test on somatic cells from bulk tank samples. In 95% of the cases, there is agreement between PCR and virus isolation. It is recommended to restrict sample size to 200-300 cows, but positive results have been obtained with higher numbers. Test results particularly negatives need to be interpreted with caution.

Future activities of committee: Dr. Dubovi led a discussion on the future efforts of the committee and its structure. There was general agreement that the committee should be involved in the development of standard procedures in the area of diagnostic virology. It was clearly recognized that a more pro-active effort was needed in this area to prevent adoption of international standards that are not in the best interest of AAVLD member labs. The committee did not support a reduction in committee membership to achieve these more focused goals. Support was expressed for selection of working groups that would be defined to achieve specific tasks with the results of those efforts being brought to the entire committee.

NVSL UPDATE

Veterinary Services Recipient of 1999 Deming Outstanding Training Award

This prestigious award was presented to Veterinary Services (US Department of Agriculture) for their outstanding Foreign Animal Disease Training program that includes the Foreign Animal Diseases Diagnostician courses held at FADDL on Plum Island. In 1995 Veterinary Services (VS) began a new initiative to assess the needs and develop approaches to better the knowledge and skills of those working in the field with the goal of establishing a nationwide emergency management field force that included state, military and private personnel. VS employees at every level became involved and working in teams and establishing partnerships with key state and federal agencies, VS has tried to ensure availability of just-in time learning resources developed by employees in work conferences. The initiative has proven highly successful. The number of employees and stakeholders trained annually jumped from 150 in 1995 to over 2000 in 1999. In the same period, the cost of training per participant dropped from \$625 to \$26. These striking figures attest to success achieved through diligence, practical approaches and a pragmatic vision.

Serologic testing for European-type PRRSV

A preliminary study in collaboration with Dr. Kurt Rossow, University of Minnesota and the Diagnostic Virology lab at NVSL involved comparison of three serologic tests on four animals experimentally infected with the European-type PRRSV virus. The IDEXX ELISA and in-house indirect fluorescent antibody (IFA) tests using North American strain and European strains were compared. Sera collected 16 days post-inoculation from all four pigs were positive by ELISA and by IFA using the European strain but negative by IFA using the North American strain. These preliminary results suggest that early in the infection process it may be possible to differentiate European from North American strains using IFA. Further work is needed to determine serologic responses later in the infection process.

Sabrina L. Swenson, Head Bovine and Porcine Viruses Section, NVSL

New NVSL Serology Check tests in 2001

NVSL announced two new check test panels for 2001: PRRS and Vesicular stomatitis virus SVN. Labs interested in these check test panels should contact NVSL.

2001 Committee Chairs

Standing Committees

Accreditation
Awards
Credentials
Editor and Editorial Board, JVDI
Editor, Newsletter
Foundation Committee

Membership

Nominating
Program
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AAVLD Strategic Planning Initiatives Progress Report

This past year, the executive board and other interested parties have taken on the efforts of strategic planning and developed six strategic objectives for AAVLD. There are a number of activities that have already begun and new activities that are planned in support of these strategic objectives. Some of those activities are listed below.

Objective 1: Gain recognition of AAVLD accreditation as a viable, internationally acceptable quality based process for accreditation in order to insure acceptance of work performed at AAVLD accredited labs.

The Accreditation committee, Executive Board and representatives of NVSL are working together to investigate the incorporation of ISO17025 guidelines into the laboratory accreditation process. The ISO17025 guidelines have international acceptance in many fields and some countries use these guidelines for diagnostic laboratory accreditation. A four-hour ISO17025 training session presented by an auditor with AALA was held October 19th at Birmingham. Members of the Executive Board, Accreditation committee and Lab Directors, attended the session. Further meetings involving NVSL, AAVLD, and AALA will be taking place to investigate ISO17025 and to form partnerships with NVSL to establish a national strategy for animal health diagnostic services. Recommendations to establish AAVLD approved methods has resulted in the formation of a committee, chaired by Dr. Frank Galey, to develop a process by which methods would be approved. The chairs of the diagnostic disciplines polled their members for input on their willingness to be involved in establishing AAVLD approved methods with a generally positive response. The toxicologists are investigating holding a one-day work shop on ISO17025 as it applies to toxicology method harmonization at the 2001 annual meeting in Hershey, Pennsylvania.

AAVLD has been offered, for the first time, the opportunity to attend the annual OIE meeting in Paris in May, which will further raise our visibility in the international arena. In addition, President Zeman, President-elect Blanchard and other interested AAVLD members will visit OIE in July to learn more about how the organization functions and meet with individuals in specific areas followed by attendance of the World Association of Veterinary Laboratory Diagnosticians International Symposium in Italy. AAVLD has been established as an organization with expertise that will provide input to the U.S. OIE representative on draft revisions of the standard methods related to laboratory testing as they are written and revised by OIE. A new Government Relations committee, chaired by Dr. Bruce Akey, was formed to serve as point of contact and liaison between Federal agencies and AAVLD so as to increase our visibility and opportunity for input on federal issues that affect AAVLD laboratories.

Standardization is ongoing in many areas within AAVLD. Some of the activities in this regard include formation of species-specific working groups to develop selective reporting guidelines for antimicrobial susceptibility testing following the discussion and workshop on this topic at the AAVLD annual meeting in October. The antimicrobial susceptibility testing subcommittee has been continuously involved in updates of the NACCL's procedures with new areas currently under development. The anaerobic infections committee is considering a Standard Operating Procedure manual on isolation and identification of anaerobes.

Objective 2: Implement programs to increase the pool of individuals interested in pursuing careers in veterinary diagnostic labs in order to insure an adequate supply of future well-trained diagnosticians.

We currently have a record number of open jobs in diagnostic laboratories with over 50 posted on the AAVLD web site or in the newsletter, so this objective is critical to the continued success of VDLs. The AAVLD Foundation Board has elected to develop a brochure on "Careers in veterinary diagnostic medicine" highlighting the challenging and interesting aspects of veterinary diagnostic medicine as well as including information on the necessary educational background. The Foundation also recommended that laboratory directors include freshmen and sophomores in gross pathology rounds and consider hiring them to work in the laboratory during holiday and summer breaks. The Foundation increased the graduate student awards beginning this year to \$500 each and has initiated a program to raise funding for externships or preceptorships for veterinary students allowing them to work in diagnostic laboratories and gain first hand experience in this field. A second initiative by the Membership committee spearheaded by Paige Carmichael will be raising funding for graduate student travel to the annual meeting.

Objective 3: Centralize administrative functions in order to provide continuity and share efficiency...

Through approval of the dues increase to 75.00 beginning in 2002, AAVLD has positioned itself to be able to fund a full time administrative position for the secretary/treasurer's office, which will allow centralization of a number of functions currently shared by various officers and editors. Planned upgrades and changes in the Web site will allow direct access from the Secretary/treasurer's office to provide timely web updates on information related to the business of the organization. In addition, the funding for a full time administrative assistant to the editor of JVDI was approved last year and has been filled. This individual is taking on the administrative responsibilities associated with the Journal, which had been handled by the secretary/treasurer office in the past.

Objective 4: Promote and establish Veterinary Diagnostic laboratories as contributors to food safety, zoonotic disease, water and environmental pathogen detection and bioterrorism initiatives in order to utilize their expertise.

Two bioterrorism projects involving veterinary diagnostic labs are in progress. Dr. Gary Osweiler is coordinating a project involving Iowa State University and the Department of Energy to establish a database of veterinary diagnostic lab resources available

to respond to bioterrorism events. This project has involved input from a number of diagnostic labs in the US. The Department of Justice is working with Dave Huxsoll and his designee in Louisiana to coordinate developing a communication network related to possible bioterrorism events. Again a number of diagnostic labs have been involved in these activities and meetings.

The 2000 AAVLD annual meeting program included several talks on food safety issues including one in the "Future session" by Dr. Richard Breitmeyer, California state veterinarian, who discussed the role of veterinary diagnostic labs in the food safety arena. With the advent and involvement of diagnostic labs in diseases like West Nile Virus, zoonotic diseases have again assumed a front line importance nationally and increased the need for rapid diagnostic test development, availability of diagnostic agents, and technology transfer. Discussions with NVSL and other key parties will be taking place in the next year to help further the efforts in establishing a process for distribution and development of new reagents and tests for emerging zoonotic diseases.

Dr. Ching Ching Wu is coordinating a national effort involving 15 diagnostic labs to monitor antimicrobial resistance among animal pathogens.

Objective 5: Expand AAVLD income sources in order to establish a strong long-term funding base for the organization and its programs.

The administrative assistant to Dr. John Kreeger, JVDI editor, will be devoting efforts towards increasing the number of patrons for the Journal and media packets developed by Allen Press will be utilized to improve the advertising potential of the journal. The Foundation is also establishing one or two initiatives this year to specifically encourage donations including the externship/preceptorship program.

Objective 6: Increase membership involvement in AAVLD activities in order to accomplish organizational objectives.

This objective has no specific action items. As our organization has grown, it has been increasingly difficult to know all of the members or even most of the members. For this reason, we are encouraging members with an interest in specific areas to contact Dr. Zeman, President of AAVLD, to express your interest as we have a number of activities that would benefit by increased involvement including some committee chair position vacancies. One such activity is the development of content material for the careers in veterinary medicine brochure that the Foundation Board has recommended.

Thank you to our Exhibitors and Sponsors of our Special Futures Session:

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Caribbean Network of Diagnostic Laboratories

In the late 1999, the Bureau of Diagnostic Laboratories in Florida was contacted assist in the development of a network of diagnostic labs in the Caribbean region. After months of planning, two visits were made in September 2000 to Guadeloupe, Barbados, and Trinidad-Tobago; and to Dominican Republic, and Jamaica. There were strong reasons for responding in this positive manner.

Florida has been described as a Caribbean State. Based on geography, travel habits and reports of various disease outbreaks, conventional wisdom tells us that any invasion of exotic animal diseases will most likely come from points south of our borders. Florida is regarded by many as a sentinel state and was clearly demonstrated as such by the finding of screw worms in an imported horse in March of this year. Florida has an extensive coastline and extends further south than any other state with numerous major coastal ports for shipping and airlines from hundreds of countries. The number of foreign governments within a short flight of Florida are almost too numerous to count.

The 1999 cooperative effort to establish a laboratory network of shared information and resources began through the efforts of Centre de cooperation internationale en recherche pour le developpement (CIRAD), Inter-American Institute for Cooperation on Agriculture (IICA), and Veterinary Services of several Caribbean-countries. After condensing a long list of diagnostic laboratories to a workable number, IICA requested assistance from the State of Florida via The Florida Association of Voluntary Agencies for Caribbean Action (FAVA/CA), to evaluate the quality assurance aspects of selected laboratories in the region.

On the first of the visits, Dr. Michael Slayter, Chief of the Florida Bureau of Diagnostic Laboratories, visited Guadeloupe, Barbados, and Trinidad-Tobago. During the second trip, Dr. Nohemy Reid of the Bureau of Petroleum Inspection accompanied Dr. Slayter to the Dominican Republic and Jamaica. Dr. Reid's expert opinion as an analytical chemist was crucial in evaluating pesticide and heavy metal residue testing in these two countries.

The main thrust of these visits was to review as well as teach. Our message was that quality assurance is the summation of policies and procedures that create a sense of confidence that laboratory results will be accurate and reproducible. It provides for consistency from one operator to another and from one day to another. Quality assurance starts at the time any party makes the conscious decision to submit material to a laboratory for evaluation. If ideal quality assurance is in place, the laboratory management will have educated the potential clientele regarding appropriate specimens, proper shipping, and the method of specimen preservation en route. Quality assurance extends to the point that the client is able to apply the information gained from any given laboratory report toward the resolution of a problem or question. Between this beginning and ending, there are myriad opportunities for erroneous information to surface, unless stringent controls are in place at key points. Perception is reality to the observer, and a well-composed quality assurance manual is clear evidence that the staff of a facility has put time and effort into the program. Science requires both large and small leaps of faith when we rely on machines and reagents. Nothing should be left to chance or assumptions. At the bench level, any crucial step within a procedure that requires a predictable outcome from a machine or reagent should be accompanied by a subroutine to assure that the outcome is indeed predictable. Quality extends to personnel as well. The credentials and continuing education of the staff should be of strong concern to the administration and should be documented and available for review to those who place their trust in the laboratory. These aforementioned highlights will be the framework of the educational process as the Caribbean laboratory network comes into focus.

During these visits, several labs exhibited technical strengths that deserve recognition. To cite some examples, the Barbados laboratory has a strong capability in poultry diseases and testing for antibiotic residues. The facility in Kingston, Jamaica has an excellent facility for detecting pesticide residues and an outstanding quality assurance program to support it. Poultry diseases, pathology, and parasitology are some of the strong points of the staff in Trinidad-Tobago. The laboratory in Santo Domingo is large, well-staffed, and has strengths in various aspects of microbiology, serology, and pathology.

From scientific and non-scientific perspectives, the success of such a network depends greatly on the recognition, financial support, and encouragement by individuals in local and international key positions. The recognition and awareness goes beyond what each laboratory needs and includes the role the laboratories play in their respective country's agriculture. Indeed, some countries overlook what agriculture does for their economy in general. It would come as no surprise to most that one of the biggest industries in the Caribbean is tourism. However, for a government to place all their emphasis on one industry puts the nation's economy at risk. All such ventures have the potential to fail for a variety of reasons. The need for diversity through agriculture never disappears.

The opportunity to work in a collegial fashion with the staff members of each network member country was rare and memorable. The one attribute found in each location was the deep desire to make this laboratory network successful. In November, the findings and recommendations of these two visits were presented to chief veterinary officers and laboratory officials from most countries of the Caribbean region at a workshop in Guadeloupe. As in most seemingly insurmountable tasks, the most important step is to simply start. It may prove to be a false start, but even false starts are progress.

Michael V. Slayter, D.V.M., M.P.V.M.
Chief, Bureau of Diagnostic Laboratories
Division of Animal Industry
Florida Department of Agriculture and Consumer Services

Job Listings

Anatomic Pathologist

The College of Veterinary Medicine, Michigan State University, invites applications for an Anatomic Pathologist at the Assistant or Associate Professor level. This is a tenure-stream position with joint appointment in the Department of Veterinary Pathology and the Animal Health Diagnostic Laboratory (AHDL). Starting date: Immediately. Applications will be accepted until a suitable candidate is identified. To apply, send a letter of application, curriculum vitae, and names of at least three references, addressed to: Dr. Willie M. Reed, DVM, PhD, Director, Animal Health Diagnostic Laboratory, B646 West Fee Hall, Michigan State University, East Lansing, MI 48824-1315. For further information, please contact Dr. Reed (phone 517-353-0635, e-mail reed@ahdlms.cvm.msu.edu) or Dr. Jon Patterson (ph 517-353-9471, e-mail patterson@ahdlms.cvm.msu.edu).

Anatomic Pathology Specialist

The Animal Health Diagnostic Laboratory, College of Veterinary Medicine, Michigan State University, invites applications for a Specialist in Anatomic Pathology, non-tenure track with annual appointment. Applications will be accepted until an acceptable candidate is identified. Applicants should send a letter of application and curriculum vitae and arrange for three letters of recommendation, addressed to: Dr. Willie M. Reed, DVM, PhD, Director, Animal Health Diagnostic Laboratory, B646 West Fee Hall, Michigan State University, East Lansing, MI 48824-1315. For further information, please contact Dr. Reed (phone 517-353-0635, e-mail reed@ahdlms.cvm.msu.edu) or Dr. Thomas Mullaney (phone 517-353-5275, mullaney@ahdlms.cvm.msu.edu).

Diagnostic Pathologist

The Athens Veterinary Diagnostic Laboratory (ADL) of the University of Georgia College of Veterinary Medicine is seeking applicants for a tenure track position in diagnostic veterinary pathology at the rank of Assistant/Associate Professor. Applications received by **January 31, 2001** are assured of full consideration. The position is available March 1, 2001. Submit a letter of application, a recent curriculum vitae, and the names and addresses of four references to: Dr. Doris M. Miller, Athens Veterinary Diagnostic Laboratory, College of Veterinary Medicine, University of Georgia, Athens, Georgia 30602-7383

Diagnostic Veterinary Pathologist/ Assistant Director

The C. E. Kord Animal Disease Laboratory in Nashville, Tennessee is seeking applicants for a vacancy in diagnostic veterinary pathology. Interested individuals should send a letter of application including a statement of goals, a curriculum vitae, 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 Pathologist

The Veterinary Diagnostic Center of Clemson University in Columbia, South Carolina is accepting applications for a Diagnostic Veterinary Pathologist. Please direct any questions regarding the position to: Pamela G. Parnell, DVM, PhD, Clemson Veterinary Diagnostic Center, PO Box 102406, Columbia, SC, 29224-2406, or call (803) 788-2260 ext. 244, or e-mail at pprnl@clemson.edu. Submit a letter of interest, including names and contact information of three professional references, along with a recent curriculum vitae to: Business Manager, Clemson University Livestock and Poultry Health Division, PO Box 102406, Columbia, SC 29224-2406. Deadline for receiving applications is **December 31, 2000**. Review will begin in January.

Diagnostic Pathologist

The Wisconsin Veterinary Diagnostic Laboratory at the University of Wisconsin-Madison is seeking applications for a diagnostic pathologist. The position is a clinical track faculty appointment in the Department of Pathobiological Sciences at the School of Veterinary Medicine. Applications will be accepted until a qualified candidate is identified. Interested applicants should submit 1) a letter of intent outlining special interest in the position, qualifications and experiences pertinent to the position, and career goals; 2) curriculum vitae; 3) names and addresses of three professional references to: Dr. R.D. Schultz, Professor and Chair, Department of Pathobiological Sciences, School of Veterinary Medicine, 2015 Linden Drive West, Madison, WI 53706.

Diagnostic Pathologist

The Texas Veterinary Medical Diagnostic Laboratories (TVMDL), a part of the Texas A&M University System, has a non-tenure track position available in the pathology department starting immediately. Please submit a letter of application, recent curriculum vitae and the names and addresses of three references to: Dr. Bruce Abbitt, Head, Diagnostic Pathology, TVMDL, P.O. Drawer 3040, College Station, TX 77841-3040, 979-845-3414.

Diagnostic Pathologist and Section Leader for Pathology

The Wisconsin Veterinary Diagnostic Laboratory at the University of Wisconsin-Madison is seeking applications for a diagnostic pathologist and leader of the pathology section. The position is clinical track appointment in the Department of Pathobiological Sciences at the School of Veterinary Medicine. Applications will be accepted until a candidate is identified. Interested applicants should submit 1) a letter of intent outlining special interest in the position, qualifications and experiences pertinent to the position, and career goals; 2) curriculum vitae; 3) names and addresses of three professional references to: Chair, Diagnostic Pathologist Search Committee, Department of Pathobiological Sciences, School of Veterinary Medicine, 2015 Linden Drive West, Madison, WI 53706

Diagnostic Veterinary Pathologist

The C. E. Kord Animal Disease Laboratory in Nashville, Tennessee is seeking an applicant for a position in diagnostic veterinary pathology. Interested individuals should send a letter of application including a statement of goals, a curriculum vitae, 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).

Toxicologic Pathology/Pathobiology

The Department of Veterinary Pathology, College of Veterinary Medicine, Michigan State University, invites applications for a tenure-stream Assistant Professor level. Starting date: Immediately. Review of applications began November 24, 2000 but will be accepted until a suitable candidate is identified. To apply, send a letter of application, curriculum vitae, and names of at least three references, addressed to: Dr. Willie M. Reed, DVM, PhD, Director, Animal Health Diagnostic Laboratory, B646 West Fee Hall, Michigan State University, East Lansing, MI 48824-1315. For further information, please contact Dr. Reed (phone 517-353-0635, e-mail reed@ahdlms.cvm.msu.edu)

Veterinary Diagnostic Pathologist

The Animal Disease Research and Diagnostic Laboratory, South Dakota State University invites applications for a Diagnostic Pathology position as a tenure track assistant or associate professor. Submit a letter of interest, a curriculum vitae, and names and addresses of 3 professional references to: Dr. Dale Miskimins, ADRDL, Box 2175, South Dakota State University, Brookings, SD 57007-1396. phone (605)688-5171. Applications will be accepted until **December 16, 2000**, or the position is filled.

Veterinary Laboratory Diagnostician

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

Veterinary Pathologist

Assistant or Associate Professor, Tenure Track, ADVS Department, College of Agriculture, Utah State University, Logan, Utah. Application Review: Review of applications will continue until a suitable candidate is identified. Applicants should send a letter of application (including a statement of goals and interests) a curriculum vita, and name, address, and phone number of three references to the following address: R.A. Smart, Chair Search and Screen Committee, Utah Veterinary Diagnostic Laboratory, Utah State University, 950 East 1400 North, Logan, UT 84322-5700

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 beginning February 1, 2001. 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 **January 15, 2001**, or until position is filled.

Clinical Assistant or Associate Professor of Clinical Pathology

The University of Illinois, College of Veterinary Medicine at UIUC, seeks a full-time clinical track assistant or associate professor in clinical pathology. To insure full consideration, applications should be postmarked by **December 15, 2000**. Anticipated starting date will be February 1, 2001. Applicants should submit a letter of interest, a curriculum vitae, and names, addresses, telephone numbers and e-mail addresses of at least three professional references to: Dr. Walter E. Hoffmann, Search Committee Chair, c/o Sherry DeMoss, University of Illinois, College of Veterinary Medicine, 2001 S. Lincoln Avenue, 1234 VMBSB, Urbana, IL 61802. Contact Dr. Hoffmann (Tel 217-333-5370 or Email at whoffmann@cvm.uiuc.edu) for further information.

Clinical Pathologist

The Department of Veterinary Pathology, College of Veterinary Medicine, Michigan State University, invites applications tenure-stream position of Clinical Pathologist at the Assistant or Associate Professor level. Starting date: Immediately. Application deadline: Review of applications will begin **November 1, 2000**. Applications will be accepted until a suitable candidate is identified. To apply, send a letter of application, curriculum vitae, and names of at least three references, addressed to: Dr. Willie M. Reed, DVM, PhD, Director, Animal Health Diagnostic Laboratory, B646 West Fee Hall, Michigan State University, East Lansing, MI 48824-1315. For further information, please contact Dr. Reed (phone 517-353-0635, e-mail reed@ahdlms.cvm.msu.edu) or Dr. Thomas Bell (phone 517-353-1636, e-mail bell@ahdlms.cvm.msu.edu).

Diagnostic Clinical Pathologist

The Wisconsin Veterinary Diagnostic Laboratory (WVDL) at the University of Wisconsin-Madison is seeking applications for a diagnostic clinical pathologist. The position is a clinical track faculty appointment in the Department of Pathobiological Sciences, School of Veterinary Medicine. Applications will be accepted until a qualified candidate is identified. Interested applicants should submit 1) a letter of intent outlining special interest in the position, qualifications and experiences pertinent to the position, and career goals; 2) curriculum vitae; 3) names and addresses of three professional references to: Dr. R.D. Schultz, Professor and Chair, Department of Pathobiological Sciences, School of Veterinary Medicine, 2015 Linden Drive West, Madison, WI 53706.

Lecturer / Senior Lecturer in Clinical Pathology

The Institute of Veterinary, Animal and Biomedical Sciences at Massey University, Palmerston North, invites applications for a lecture-ship / senior lectureship in clinical pathology. Enquiries of an academic nature may be directed to A/Prof. Keith Thompson, Phone +64 6 350 5799 x7621 or e-mail K.G.Thompson@massey.ac.nz.

Veterinary Clinical Pathology

The University of Georgia College of Veterinary Medicine is seeking applications for a faculty position in Veterinary Clinical Pathology. Applications received by **January 1, 2001**, are assured of consideration. Interested applicants should submit a curriculum vitae and the names and addresses of three professional references to: Dr. Corrie Brown, Head, Department of Veterinary Pathology, College of Veterinary Medicine, The University of Georgia, Athens, GA 30602-7388.

Veterinary Clinical Pathologist

The Texas Veterinary Medical Diagnostic Laboratory has an opening for the position of clinical pathologist. This is a non-tenure track position with annual reappointment. Interested applicants should send inquiries and resumes to: Dr. Sandra L. Lovering, Chairman of Search Committee, TVMDL, Drawer 3040, College Station, Texas 77841-3040. 979-845-3414 or s-lovering@tamu.edu

Clinical Pathologist

The Department of Veterinary Pathology, Western College of Veterinary Medicine, University of Saskatchewan, invites applications for a tenure-track faculty position in clinical pathology at the Assistant or Associate Professor level. Application deadline is February 1, 2001. To apply, send a letter of application explaining background and career goals, curriculum vitae, and contact information for three professional references to Dr. Gary Wobeser, Department of Veterinary Pathology, University of Saskatchewan, 52 Campus Drive, Saskatoon, Saskatchewan S7N 5B4. For further information, contact Dr. Wobeser (phone 306 966 7310, email gary.wobeser@usask.ca).

Diagnostic Microbiologist and Section Leader for Bacteriology

The Wisconsin Veterinary Diagnostic Laboratory (WVDL) at the University of Wisconsin-Madison is seeking applications for a diagnostic microbiologist and section leader of bacteriology. Applications will be accepted until a qualified candidate is identified. Interested applicants should submit 1) a letter of intent outlining special interest in the position, qualifications and experiences pertinent to the position, and career goals; 2) curriculum vitae; 3) names and addresses of three professional references to: Dr. R.D. Schultz, Professor and Chair, Department of Pathobiological Sciences, School of Veterinary Medicine, 2015 Linden Drive West, Madison, WI 53706.

Veterinary Diagnostic Bacteriologist

The Animal Disease Diagnostic Lab at the Ohio Department of Agriculture invites applications for the position of Veterinary Bacteriologist. This position serves as Section Head of the Bacteriology Lab. Submit curriculum vitae and names of 3 references with a letter expressing their professional interests and goals 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 e-mail byrum@odant.agri.state.oh.us.

Veterinary Microbiologist

Veterinarian 3 OR Licenced Science Officer 4. Abbotsford, \$55,965 - \$62,409. Agriculture and Food, Animal Health Branch. Prior to submitting an application/resume you must visit <http://www.th.gov.bc.ca/hr/agf/9126-9129.htm> or contact the closing location. Competition: AF2000:9126 (Licensed Science Officer 4) OR AF2000:9129 (Veterinarian 3). Closing Date: **December 14, 2000**. Closing Location: Human Resources, 5A-940 Blanshard Street, PO Box 9850 Stn Prov Govt, Victoria, BC, V8W 9T5. Contact: Christian Evans; Phone: 387-5368 FAX: 387-5334

Veterinary Microbiology Faculty

The Department of Pathobiology, Laboratory of Microbiology and Immunology, University of Pennsylvania School of Veterinary Medicine, seeks applications for a Clinician Educator Faculty Position to supervise the Veterinary Microbiology Diagnostic Laboratory in Philadelphia. Applicants should send a curriculum vitae, a summary of research accomplishments and a description of future plans, and arrange to have three letters of reference sent to: Chair Clinical Microbiology Search Committee, University of Pennsylvania School of Veterinary Medicine, Philadelphia, PA 19104-6049, USA. Fax: 215-898-7887.

Veterinary Research Specialist

The College of Veterinary Medicine, Veterinary Diagnostic Laboratory (VDL) at the University of Illinois at Urbana-Champaign is seeking a Veterinary Research Specialist to work in the microbiology section. Start date: On or about January 29, 2001. To ensure full consideration applications, resume, and three references must be received by **January 12, 2001**. Submit applications to: Dr. Carol Maddox, Veterinary Diagnostic Laboratory, College of Veterinary Medicine, University of Illinois at Urbana-Champaign, 1234 VMBSB 2001 S Lincoln Avenue, Urbana, IL 61802, (217)333-1620 or maddox@uiuc.edu

Avian Virologist/Immunologist

Animal Health Laboratory, Laboratory Services Division. University of Guelph, Guelph, Ontario, Canada. Position Number:482-050. Classification: P08*. *Tentative Evaluation. Subject to Committee Review. We thank all applicants for their interest but wish to advise that only those selected for an interview will be contacted. *Job postings are intended for recruitment purposes only and should not be construed as official university job descriptions. All applications must be forwarded to: Human Resources, Level 5, University Centre, University of Guelph, Guelph, Ontario, Canada Fax number: (519) 763-2780

Diagnostic Immunologist/Virologist and Section Leader for Immunology and Virology

The Wisconsin Veterinary Diagnostic Laboratory (WVDL) at the University of Wisconsin-Madison is seeking applications for Position of diagnostic immunologist/virologist and section leader of immunology and virology. Applications will be accepted until a qualified candidate is identified. Interested applicants should submit 1) a letter of intent outlining special interest in the position, qualifications and experiences pertinent to the position, and career goals; 2) curriculum vitae; 3) names and addresses of three professional references to: Dr. R.D. Schultz, Professor and Chair, Department of Pathobiological Sciences, School of Veterinary Medicine, 2015 Linden Drive West, Madison, WI 53706

Veterinary Virologist

The Department of Veterinary Sciences, University of Wyoming, is seeking candidates for a tenure-track assistant professor position in virology. Interested candidates should send curriculum vitae and arrange for 3 letters of reference to be sent to: Ken Mills PhD, Department of Veterinary Sciences, 1174 Snowy Range Rd, Laramie, WY 82070. Phone 307 742-6638. kmills@uwyo.edu For full consideration, application materials should be received by **March 1, 2001** with an anticipated start date of July 1, 2001.

Virologist (Veterinary)

Virologist with experience working with animal viruses and who has a range of diagnostic virology skills. For further information contact Gary Horner, NCDI, Upper Hutt, phone 64-4-526 5600, fax 64-4-526 5601, e mail: horner@maf.govt.nz. Applications should be forwarded to Donna Archibold, NCDI, MAF, POBox 40742, Upper Hutt.

Preharvest Food Safety/Assistant/Associate Professor

This position is in the Food Animal Health Research Program, Ohio Agricultural Research and Development Center, with tenure or tenure track in the Department of Veterinary Preventive Medicine, The Ohio State University. Review of applications will begin immediately and continue until filled. To apply, send curriculum vitae, summary of research interests, and names of five references to: Dr. Qijing Zhang, Search Committee Chair, Food Animal Health Research Program, Ohio Agricultural Research and Development Center, 1680 Madison Avenue, Wooster, OH 44691. Phone 330-263-3747, FAX 330-263-3677 or E-mail zhang.234@osu.edu.

Clinical-Track Avian Diagnostician/Food Safety Specialist Position

The Animal Disease Diagnostic Laboratory and the School of Veterinary Medicine of Purdue University invite applications from qualified individuals for a full-time, Clinical-Track Assistant/Associate Professor faculty position as Avian Diagnostician and Food Safety Specialist. **Review of applications will begin February 1, 2001.** Send nominations or letters of application, resume, names, addresses, telephone numbers and e-mail of 5 references to: Leon Thacker, Director, Animal Disease Diagnostic Laboratory, 1175 ADDL, Purdue University, West Lafayette, IN 47907-1175.

Diagnostic Laboratory Director

Clemson Veterinary Diagnostic Center is seeking applicants for Director of the Diagnostic Laboratory. Salary is competitive and commensurate with qualifications. To apply send application letter describing interest, a current curriculum vitae, and the names, addresses, telephone numbers, and e-mail addresses of 3 references to: Dr. Charles King, South Carolina Meat & Poultry Inspection Department, Clemson University, P.O. Box 102406, Columbia, SC 29224-2406. (Tel: 803-788-8747; Email: cking@clemson.edu). **Applications need to be received by December 29, 2000.**

Diagnostic Toxicologist/Toxicologic Pathologist

The Wisconsin Veterinary Diagnostic Laboratory (WVDL) at the University of Wisconsin-Madison is seeking a diagnostic toxicologist or toxicologic pathologist with clinical track appointment in the Department of Pathobiological Sciences, School of Veterinary Medicine-University of Wisconsin-Madison. Applications will be accepted until a qualified candidate is identified. Interested applicants should submit 1) a letter of intent outlining special interest in the position, qualifications and experiences pertinent to the position, and career goals; 2) curriculum vitae; 3) names and addresses of three professional references to: Dr. R.D. Schultz, Professor and Chair, Dept. of Pathobiological Sciences, School of Veterinary Medicine, 2015 Linden Drive West, Madison, WI 53706.

Analytical Chemist

The College of Veterinary Medicine, Veterinary Diagnostic Laboratory (VDL) at the University of Urbana-Champaign is seeking an Analytical Chemist to work in the toxicology section. To ensure full consideration applications, resume, and three references should be postmarked by **December 15, 2000.** Anticipated starting date will be January 15, 2001. Applicants should submit a letter of interest, a curriculum vitae with names, addresses, telephone numbers and e-mail addresses of at least three professional references to: Dr. Gavin Meerdink, Search Committee Chair, c/o Sherry DeMoss, Veterinary Diagnostic Laboratory, College of Veterinary Medicine, University of Illinois, 1234 VMBSB, 2001 S Lincoln Avenue, Urbana, IL 61802; (217)333-1620.

Residency/Graduate Program In Veterinary Microbiology

Location: Department of Pathobiology, College of Veterinary Medicine, Auburn University, AL 36849

Starting Date:As soon as possible. Application Deadline: Review of applications will continue until a candidate is recommended for appointment. Application: For application forms and additional information, contact: Dr. Kenny V. Brock, Department of Pathobiology, College of Veterinary Medicine, Auburn University, AL 36849-5519. Telephone: (334) 844-2663; FAX: (334) 844-2652. email: brockkv@vetmed.auburn.edu.

Training Position In Zoological Pathology

The Department of Pathobiological Sciences, School of Veterinary Medicine, University of Wisconsin - Madison, in association with Research Animal Resources Center, University of Wisconsin - Madison, and the Milwaukee County Zoo is seeking a trainee in Zoo Pathology. Deadline **January 15, 2001.** Send curriculum vitae and the names of at least three references to: Dr. R.D. Schultz, Professor and Chair, Department of Pathobiological Sciences, School of Veterinary Medicine, University of Wisconsin - Madison, 2015 Linden Drive West, Madison, Wisconsin 53706-1102. (608) 2623-9888

Post-Doctoral/Research Scientist Position

A postdoctoral/research scientist is invited to join an on-going research project on molecular characterization and vaccinology of RNA viruses at Department of Veterinary Pathobiology, Purdue University. This position is available immediately or until filled. Please send curriculum vitae and names and contact information of three references to: Dr. Ching Ching Wu, Professor, 1175 ADDL, Purdue University, West Lafayette, IN 47907-1175. Tel: 765-494-7459. Fax: 765-494-9181. E-mail: wuc@purdue.edu

Veterinary Anatomic Pathology Residency Program.

The Athens Veterinary Diagnostic Laboratory, College of Veterinary Medicine, University of Georgia, Athens, Georgia, is seeking applicants for a post-DVM residency program in veterinary anatomic pathology. Qualified candidates should send a letter of intent stating career goals, a curriculum vitae, undergraduate and veterinary school transcripts, and 3 letters of reference to: Dr. Cathy Brown, Athens Veterinary Diagnostic Laboratory, College of Veterinary Medicine, University of Georgia, Athens, Georgia, 30602. phone: (706)542-5568; FAX (706)542-5977; e-mail: cabrown@cvm.vet.uga.edu.



Membership Application

Send membership invoice to: AAVLD, PO BOX 1770, Davis, CA 95617

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!

NAME: _____

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CITY: _____ STATE: _____ ZIP: _____

COUNTRY: _____

PHONE: _____ FAX: _____

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INTEREST: _____ DEGREES: _____

NEW MEMBER: RENEWING MEMBER: Year first joined AAVLD: _____
(your best recollection)

- Full Membership (\$50.00)
- Retired Membership (\$25.00)
- Graduate Student or Residency Membership (\$25.00)
- *Associate Membership (\$25.00)*Associate Membership does not include the JVDI
Other memberships classes include 6 issues of the JVDI, reduced registration fees to the annual meeting,
access the AAVLD website with 3 issues of the newsletter and a membership directory, discussion list access.
- Foundation Donation: \$25 \$50 \$75 \$100 Other: _____

Payments from outside the U.S. and Canada must be made by credit card or International Money Order ONLY-other forms of payment will be returned to sender

Credit Card Payment Information (a \$2.00 service fee will be added to credit card transactions):

Card No. _____ Visa MC

Expiration Date: _____

Signature: _____