



## American Association of Veterinary Laboratory Diagnosticians E-Newsletter

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Issue #: 9-2015

News & Events September 2015

## WELCOME To Your New AAVLD !!

The next time you visit the AAVLD website, you may notice some things have changed. We have an all new website to help you get the most out of your AAVLD membership!

The new website features user friendly navigation with easy to access Quick Links for the most up to date information. You will also find a Facebook feed allowing you to see what's been posted to the AAVLD Facebook page. Join almost 1,000 others in following the AAVLD on Facebook.

Front and center on the new website, AAVLD will feature an accredited laboratory each month. This month its the laboratory in Utah. Read all about the Utah laboratory on AAVLD's homepage at [www.aavld.org](http://www.aavld.org).

**If your laboratory would like to be featured on the AAVLD website, please contact Jim Kistler, AAVLD Executive Director at [jkistler@aavld.org](mailto:jkistler@aavld.org)**

## 2015 USAHA/AAVLD Annual Meeting Pre-Registration Now Closed

Plans are nearing completion for the 119th United States Animal Health Association (USAHA) and 58th American Association of Veterinary Laboratory Diagnosticians (AAVLD) Annual Meeting. The meeting will take place October 22-28, 2015 at the Rhode Island Convention Center in Providence, R.I. The event brings together leaders and stakeholders from across the country to address the most pressing issues in livestock and poultry disease, regulations, diagnostics and research in the United States. Registration is open to anyone interested in the mission of USAHA and AAVLD to safeguard the health of the U.S. herds and flocks.

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"Final program development is well underway for the multiple committees, scientific and plenary sessions," says Jim Kistler, executive director of AAVLD. The program includes committee meetings, topical presentations, scientific sessions and peer collaboration across a wide range of topics including multiple species of livestock and poultry. "We are excited to be in Providence for the first time in the history of the organization, and working with our hosts in the northeast for a great meeting this fall."

The AAVLD Plenary on Saturday, October 24 will focus on the highly pathogenic avian influenza (HPAI) outbreak of 2015, and the Joint Plenary Session on Monday, October 26 will feature "Future of Livestock and Poultry: Food Security for the Next Decade," looking comprehensively at the food chain and issues from producer to consumer. Details on both sessions will be forthcoming as they are confirmed. Dr. David Schmitt, Iowa State Veterinarian and Dr. Tom Baldwin, Utah Veterinary Diagnostic Laboratory Director, are serving as 2015 program co-chairs for USAHA and AAVLD, respectively.

Meeting pre-registration is now closed. Registrations will be accepted onsite, and registration fees may be paid at that time. Detailed meeting information is available at [www.usaha.org](http://www.usaha.org) and [www.aavld.org](http://www.aavld.org).

## JVDI: In Focus

The goal of *JVDI: In Focus* is to bring attention to an interesting article appearing in the most recent issue of the *Journal of Veterinary Diagnostic Investigation*.

This month's focus is on "Characterization of *Mannheimia haemolytica* in beef calves via nasopharyngeal culture and pulsed-field gel electrophoresis" by Sarah F. Capik, Brad J. White, Brian V. Lubbers, Michael D. Apley, Derek A. Mosier, Robert L. Larson, and Robert W. Murray.

*J Vet Diagn Invest* 2015;27:568-575

Abstract: *Mannheimia haemolytica* is a major bacterial component of bovine respiratory disease (BRD); unfortunately, very little is known about *M. haemolytica* transmission dynamics among cattle. Identifying potential variation in *M. haemolytica* populations over time and induction of nasopharyngeal colonization and subsequent shedding are 2 areas where knowledge is lacking. In our study, 2 separate loads of 20 mixed-origin, male calves were purchased through an order buyer on different dates. Deep nasopharyngeal cultures (NPC) were performed on all calves on arrival and, if *M. haemolytica*-negative, a second screening culture was obtained. Calves that were negative on 2 initial NPCs (NEG; n = 4) were

subsequently challenged with a previously isolated field strain of *M. haemolytica* in both the upper and lower respiratory tract, individually housed, and then monitored for *M. haemolytica* shedding via NPCs at 0.5, 1, 3, 5, 7, and 9 days postchallenge. Naturally *M. haemolytica*-positive calves (2 per load) were kept for additional daily cultures (POS; n = 4). Individual calf *M. haemolytica* status for both the POS and NEG groups was inconsistent between study days. Additionally, pulsed-field gel electrophoresis performed on isolates from the positive cultures showed that the NEG calves did not shed the *M. haemolytica* challenge strain, but rather 2 distinct clusters of *M. haemolytica* were shared among POS and NEG calves regardless of their initial status. Although sample sizes were small, these findings illustrate how variable the results of a single nasopharyngeal swab can be and the challenges of using an individual culture to truly represent animal *M. haemolytica* status.

### AAVLD Accreditation Committee Report

#### AAVLD Accreditation Committee Meeting Highlights

Date: July 29-30, 2015

Submitted by: Tim Baszler - Chair; Barbara Martin-Vice Chair

#### Committee Meeting Activities:

- 1) Meeting Minutes from February 2014 Accreditation Committee Meeting, Las Vegas, NV: Action-Approved
  
- 2) Treasurer's Report: Action-Approved

#### Total Assets:

FY2012	\$140,019
FY2013	\$110,870
FY2014	\$118,386
FY2015	\$124,388

- Jim Kistler, AAVLD Exec Director, provided new accounting summary for Accreditation Committee. Summary consisted of easily identifiable revenue and expense categories, and summaries of "profit" centers. New accounting system will make tracking

budget for critical areas such as accreditation training, accreditation site visits, meeting costs and laboratory dues much more efficient.

- FY2015 Accreditation revenue was \$52,428 and expenses \$57,149 for net loss of \$4,721. Major expenses were for site visits and quality symposium expenses.
- Committee discussed raising laboratory dues. First step would be 5 year projection of budget to help predict future budget needs.

3) Laboratory Deliberations (Deliberations on 21 laboratories)

- Site visit reports - 3
- Laboratory responses to site visit reports - 10
- Laboratory progress reports/updates - 8

4) 2015 Site Visits

- Site visits completed - 3
- Site visits in scheduled - 3
- Site visit initiated after July 2015 meeting - 4
  - Used newly developed AAVLD website repository for 2015 site visits for communication with labs, between site visit members, secure and confidential exchange of documents

5) Accreditation Committee Business Meeting

OLD BUSINESS

1. Committee Document Reviewed and Approved 3 documents:

- a. Accreditation Committee Management SOP (general policies and procedures for Accreditation Committee)
- b. Management of AAVLD Auditor Pool SOP (general policies and procedures for audit pool)
- c. Confidentiality and Conflict of Interest Statement

2. SOPs for future drafting

- (a) Selection of site visit teams: Subcommittee to develop guidance document for review at October meeting
- (b) Laboratory response to site visit reports: On hold until AAVLD website repository tested further

(c) Writing, finalization, review, notification, posting, training, and on-line permissions for viewing Committee SOPs:

Subcommittee to develop for review at October meeting

(d) Interpretation of AAVLD Accreditation

Standard: Subcommittee to develop record of discussions and training to be developed by October meeting.

(e) Nomination of Accreditation Committee

members: Subcommittee to develop for October Committee meeting

3. Templates for Follow-Up Visit Reports AND Accreditation Committee Letters to Laboratories: Action-Approved

4. AAVLD Accreditation Committee Website Repository

1.

1. Document Naming Convention: Action- finalized
2. Committee training on AAVLD Website re-design and uploading of documents on the website
3. Modified "Accredited Laboratory List" on public website to include main laboratories and branch laboratories in each state laboratory system: Action - Approved

5. Modification of Personnel Requirements in AAVLD Accreditation Standards: Action-Approved for further comment by AAVLD

- a. Subcommittee reviewed and drafted changes to Appendix 1 (Personnel Qualifications) of the current version of "AAVLD Accreditation Requirements for a Veterinary Medical Diagnostic Laboratory".
- b. Draft changes to personnel requirements for administration, section heads, professional staff, and technical/clerical staff reviewed.
- c. Draft document to be widely presented to AAVLD Executive Board and Laboratory Directors for feedback and discussion at October 2015 annual meeting.

6. FDA activities related to Food Safety Modernization Act

- a. Subcommittee developed a white paper to compare ISO 17025 and AAVLD Accreditation Requirements as part of the cooperative agreement with FDA VetLIRN.
- b. The white paper was developed in response to request from FDA Veterinary Laboratory Response and Investigation Network (VetLIRN) to assist The Partnership of Food Protection coalition developing an

accreditation best practices manual. Action - Committee reviewed and provided edits

7. AAVLD By laws changes
  - a. Subcommittee draft of by-laws changes regarding Accreditation Committee reviewed and approved
  - b. Article IX. - Committees, Section 2 Accreditation Committee; Subsection A amended to include Chair or Co-Chairs.
  - c. Change made to accommodate increasing growth, complexity, and responsibility of AAVLD Accreditation Program, and to be consistent with Article IX; Committees, Section 1 which states All Committees shall follow policies and procedures described in most recent version of AAVLD Committees Standard Operating Procedures".

#### NEW BUSINESS

- Georgia Poultry Laboratory Network Request for Accreditation Site Visit: Request considered by Committee

Action: Request further documents to clarify whether or not administration and full service definitions of network are compatible with AAVLD Accreditation Requirements.

- List of Proficiency Tests used by AAVLD laboratories
  - Developed by Quality Committee
  - Document reviewed and approved by Accreditation Committee as guidance document
  - To be posted on Quality Committee and Accreditation Committee website
- Letter to USDA-Center of Veterinary Biologics to encourage identification approval of test kits required kit inserts to have version number and version history (summary of version changes)
  - Committee approved drafting of letter by subcommittee to be reviewed by Chair and Vice-Chair and sent to CVB
- Options for remote auditor pool training
  - Committee discussed ways to increase access to auditor pool training to more laboratories

- Remote training not supported since auditor training consists of many "interactive" workshop activities
- Committee recommended requesting new travel scholarship from AAVLD Foundation for auditor pool training
- NAHLN request for Accreditation certificates that clearly communicated both main and branch laboratory status: Action-approved

## ANNUAL MEETING MOBILE APP NOW AVAILABLE

AAVLD and USAHA are proud to announce the Providence, R.I. installation of the 2015 AAVLD / USAHA Annual Meeting App! The app will again be available for registered attendees on your smartphone and tablet devices as well as a laptop-compatible version. The app will allow access to all of the meeting information on your devices. The app is available on Apple and Android systems, downloadable through the Apple store or Google Play. The app will be accessible for attendees to the annual meeting. It is a native app meaning internet connection is not required to run the program. However, internet connection is necessary for any updates or announcements and we will have complimentary wireless internet available for your use in Providence. The app is brought to you by the generous support of Thermo Fisher Scientific.

- Key App features
  - Interactive Schedule & Agenda, including the ability to build your own agenda
  - Connect with other attendees through the app
  - Downloadable Scientific and other session presentations to your device
  - Interactive Exhibitor information
  - General meeting information & announcements

Watch for an upcoming tutorial to better acquaint you with using the app - coming soon!

How to access the mobile app:

- You must first be registered for the 2015 Annual Meeting to have an account. PLEASE NOTE: if you used the app last year (2014), your registration is no longer active. Only 2015 Registrants will be recognized.

- Once you have registered for the meeting, you will receive a notification once your app activation is completed.
- If you used the app last year, you should be able to update the 2014 app with the current version. If you are a new user, simply go to your app store, and search for AAVLD USAHA Annual Meeting, and select download. (Data rates may apply). Once you've downloaded, start the app and you will be prompted to enter your email address, and you're all set.
- For those interested in the desktop version, it can be accessed at: <http://www.bravuratechnologies.com/aavld2015/web/attendeelogin.aspx>

## AAVLD & ACVM Joint Mini-Symposium

### 58th Annual AAVLD Meeting

**Registration for the AAVLD & ACVM Joint Mini-symposium is now open. Please register ASAP at <http://www.aavld.org/symposium-workshops>**

### Emerging Technologies in the Veterinary Microbiology Lab

*Friday, October 23rd, 8:00 am-11:45 pm*

#### Topics

- MALDI-TOF - Present and Future (principles, incorporation into the clinical bacteriology workflow, user database expansion, offline classification, new features and opening the box - expanding the spectral range) 8-9:30
  - Dr. Timothy Frana DVM, PhD, Associate Director of Pharmacovigilance at Boehringer Ingelheim Vetmedica.
  - Dr. Durda Slavic DVM, MSc, PhD, Bacteriology supervisor at the Animal Health Laboratory, University of Guelph.
- Break 9:30-10
- The utilization of next gen sequencing instruments in a veterinary diagnostic laboratory - 10-10:45
  - Dr. Suelee Robb-Austerman DVM, MS, PhD, supervisor of the Mycobacteria and Brucella section of the National Veterinary Services Laboratories.
- Luminex assay development and use in the veterinary diagnostic laboratory 11-11:45
  - Dr. Jane Christopher-Hennings, DVM, MS, Head South Dakota Veterinary & Biomedical Sciences Department, Director, SD Animal Disease Research and Diagnostic Laboratory



- Dr. Steve Lawson PhD, Research Associate III Virologist, South Dakota State University Veterinary and Biomedical Sciences Department

The symposium and breakfast is sponsored by Zoetis

### EXHIBITOR ARTICLE: VMRD

Title: Anaplasma rMSP5-GST cELISA Non-Reactive with Sera from Ehrlichia spp PCR Positive Cattle

Author: D. Scott Adams

In 1996 Knowles et al<sup>5</sup> reported a diagnostic MSP5 epitope on *Anaplasma marginale* which formed the basis of a highly specific and sensitive cELISA. A commercial cELISA based on this epitope using a rMSP5-MBP expression product<sup>6</sup> was licensed by the USDA in 2002 after sensitivity of the complement fixation test for anaplasmosis in persistently infected cattle was found to be quite low<sup>2</sup>. The cELISA immediately became the required import test for entry of cattle into Canada. After several years of testing, Al-Adhami et al<sup>1</sup> postulated serological cross-reactivity between *A. marginale* and *Ehrlichia* species in naturally and experimentally infected cattle using the rMSP5-MBP commercial assay cELISA.

Last year Chung et al<sup>3</sup> reported a rMSP5-GST expression product for the cELISA antigen which improved specificity of the assay and this was licensed by USDA. Chung et al<sup>4</sup> tested sera in both cELISAs from 33 cattle which were PCR negative for *Anaplasma marginale* but PCR positive for *Ehrlichia* spp. The rMSP5-MBP cELISA was positive with 6 of the samples but the recently licensed rMSP5-GST cELISA was negative with all 33 samples.

#### References:

1. Al-Adhami B, Scandrett WB, Lobanov VA, Gajadhar AA: 2011, Serological cross-reactivity between *Anaplasma marginale* and an *Ehrlichia* species in naturally and experimentally infected cattle. *J Vet Diagn Invest* 23:1181-1188.
2. Bradway DS, Torioni de Echaide S, Knowles DP, et al.: 2001, Sensitivity and specificity of the complement fixation test for detection of cattle persistently infected with *Anaplasma marginale*. *J Vet Diagn Invest* 13:79-81.
3. Chung C, Wilson C, Bandaranayaka-Mudiyanselage B. et al., 2014, Improved diagnostic performance of a commercial *Anaplasma*

- antibody competitive enzyme-linked immunosorbant assay using recombinant major surface protein 5-glutathione S-transferase fusion protein as antigen, *JVDI*, 26(1):61-71
4. Chung C, Wilson CL, Scoles GA. et al., 2015, Field Evaluation of an Improved Anaplasma Antibody competitive blocking Enzyme-linked Immunosorbent Assay and Evaluation of Cross-reactivity of Ehrlichia antibodies, Submitted to *JVDI*
  5. Knowles D, Torioni de Echaide S, Palmer G, et al.: 1996, Antibody against an Anaplasma marginale MSP5 epitope common to tick and erythrocyte stages identifies persistently infected cattle. *J Clin Microbiol* 34:2225-2230.
  6. Torioni de Echaide S, Knowles DP, McGuire TC, et al.: 1998, Detection of cattle naturally infected with Anaplasma marginale in a region of endemicity by nested PCR and a competitive enzyme-linked immunosorbent assay using recombinant major surface protein 5. *J Clin Microbiol* 36:777-782.

## EXHIBITOR ARTICLE: Zoetis

### PADX315 AAVLD KOL Article

#### Veterinary Diagnosticians Examine Changing Landscape of Animal Health

The role of veterinary diagnostic laboratories reaches far beyond simply providing their customers with test results. These laboratories fulfill critical roles in disease surveillance among livestock and in monitoring the human food supply and drinking water to help ensure its safety, as well as guiding companion animal veterinarians in the care of their patients.

Today, the veterinary diagnostic medicine landscape is rapidly evolving and has significantly impacted veterinary diagnostic laboratories. Laboratory personnel acknowledge this rapid evolution and are currently strategizing on ways to meet the many challenges-and, importantly, the opportunities-it brings.

Recently, leaders in veterinary diagnostic laboratory medicine gathered to discuss their perspectives on the trends, challenges and opportunities that lie ahead for diagnostic laboratories. Sponsored by Zoetis-a leader in providing diagnostics tests to meet the needs of veterinarians, producers, breeders and pet owners-this discussion provided an opportunity to identify and explore key issues. These include: maintaining quality control and system maintenance; decreased state and federal government funding; point-of-care competition; lack of public recognition of the value of university laboratories; lack of connectivity among multiple communication data systems; new assay and service development costs; recruitment and retention of qualified employees; new technology adoption; independent laboratory relevance and competitiveness.

"It was interesting to hear directly from individuals who have been involved in the diagnostic laboratory industry for many years," said Chris Demiris, Director of Marketing, U.S. Diagnostics-Zoetis. "They shared some remarkable insights into what lies ahead in the coming decade."

As part of its commitment to the industry, the full proceedings from this important meeting are being made available in October to veterinary laboratory professionals by Zoetis. To obtain your free copy visit Zoetis booth #28 at the 2015 AAVLD Conference or send an email request to [Chris.Demiris@zoetis.com](mailto:Chris.Demiris@zoetis.com).

WIT-00112

### Histopathology Slide Sets and Abstracts Now Available

Slide sets of the 2014 Histopathology Slide Session are available for purchase. The abstracts for this session, in addition to many of the previous Pathology Slide Seminars, can be viewed at <https://aavld.memberclicks.net/histopathology-conference>. It is in the Publications area of the website if you need to navigate that way.

Limited numbers of slides sets from previous years are available at \$50 per set as well (2005, 2011-2013). An order form link is available on the site, as is my contact information.

This year, as in previous years, there were many excellent slides and presentations. Dr. Tim Cushing and I sincerely thank all the participants.

Rob Bildfell  
OSU VDL

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