EAVLD Newsletter

This newsletter...

Foreword

Dear colleague

In this fourth issue of EAVLD Newsletter you find information about the Congress in Poland 1.-4. July 2012. Book the dates in your calendar now!

Further, there is information about how to become a member of the board and an invitation to organize the EAVLD congress in 2014. There is an offer to subscribe JVDI at a significant discount and information about EAVLD on LinkedIn. Finally, there is an update on diagnostics of coccidiosis.

The EAVLD board wishes all members a merry Christmas and a happy new year. See you in Kazimierz Dolny 1st July 2012.

EAVLD Congress 1.-4. July 2012 in Poland

Second EAVLD Congress on veterinary diagnostics will be held from 1st to 4th of July 2012, in Kazimierz Dolny, Poland. National Veterinary Research Institute (NVRI) located in Pulawy is proud to be the organizer of this event. The congress will be held in Krol Kazimierz Hotel (King Casimir Hotel) in Kazimierz Dolny, 120 km south-east from Warsaw and 12 km from Pulawy.

The scientific program of the congress will be related to all the relevant issues of diagnostic work in veterinary laboratories and it will focus among other things on: on-site tests, diagnosis of emerging and re-emerging diseases and new techniques in microbiology and parasitology. We plan to open the registration by the end of December 2011 or at the beginning of January 2012, as soon as the details of scientific sessions are agreed.

Accommodation will be available in the congress hotel (115 spaces) and in selected hotels in Kazimierz Dolny, since the expected number of participants will most probably exceed the capacity of hotel King Kazimierz. The organizer of the congress will provide shuttle buses for participants directly from and to the Warsaw airport, providing convenient way to reach the city of Kazimierz Dolny.

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The town of Kazimierz Dolny, situated on the Lublin plateau, lies on the right bank of the river Vistula on its way to the Baltic. Because of its attractive location, its rich history, its picturesque medieval houses, wonderful architecture and kind climate, Kazimierz is known not only in Poland but also abroad as a sought-after tourist and leisure center where guests can relax and enjoy their holidays. Both the urban architecture as well as the attractive landscape of Kazimierz and the surrounding countryside have become well known in Poland and beyond its borders. In 1994 the President of the Polish Republic published a decree naming Kazimierz Dolny a centre of historical importance. The absence of industrial activites of any sort permitted flora and fauna to flourish. In 1979, a "Landscape Park" which includes the whole area of the Kazimierz community was created. In the park there are many footpaths which encourage visitors to walk around and enjoy the lovely views and the surroundings.

Market place with overview of the Parish Church

Conference hall

Night view of the exterior of the hotel

Ruins of the King’s castle

Election of new board members of EAVLD

During the second EAVLD congress in Poland, July 2012, new board members for the EAVLD can be elected. Board members serve for a period of two years, with a possible extension for one other term of two years. An exception is the election for the vice-president, who will, following his two year term as vice president, serve for two years as president and another two years as past-president.

Board members will participate in regular board meetings (on average every two months) by teleconference. Besides the secretarial and treasury duties, board members have active roles as web master, editor of the newsletter, coordinator for country representatives, etc. If you want to be involved more actively in the EAVLD, you can contact any board member for more information. If you consider putting yourself up for election, please contact the secretary of the EAVLD (Willie Loeffen: secretary@eavld.org).

Do you want to organize a future EAVLD congress?

In 2012, the EAVLD congress will be in Poland, and is organised by NVRI. If you want to organise the congress in 2014, please have a look at our website (http://www.eavld.org/joomla/index.php/meetings-and-congress/present-a-bid-for-an-eavld-congress). You should be working and living in Europe and be associated to a veterinary laboratory or research institute and/or have the support of an organisation, institute or company that can take financial responsibility. The congress must be hosted in a European country.

Organising the congress is a good way for you to promote your organisation, your country, and increase your own professional network and experience. On the website mentioned above, the instructions for such a bid are detailed. There is not yet a deadline for submitting bids for the 2014 congress, but bids for organising the congress will be accepted from now on. For further questions, you can contact the secretary or the president of the EAVLD (Willie Loeffen: secretary@eavld.org; Andrew Soldan: president@eavld.org).

Journal of Veterinary Diagnostic Investigation

As an EAVLD member it is now possible to subscribe to the Journal of Veterinary Diagnostic Investigation (JVDI) at a significant discount.

The Journal of Veterinary Diagnostic Investigation is a journal published by our sister organisation, the American Association of Veterinary Laboratory Diagnosticians (AAVLD). It is devoted to all aspects of veterinary laboratory diagnostic science. The major disciplines are anatomical pathology, bacteriology/mycology, clinical pathology, epidemiology, immunology, laboratory information management, molecular biology, parasitology, public health, toxicology, and virology. The journal's current Impact Factor is 1.381 and it is ranked 36 out of 145 journals in Veterinary Sciences category of the Thomson Reuters 2010 Journal Citation Reports®. More information on the journal can be found at the website of the publisher (http://vdi.sagepub.com/).

For now, EAVLD has no intention to publish its own journal, but we have entered an agreement with AAVLD and the publisher, SAGE, to make their journal available to EAVLD members at a significant discount. The normal price for an individual subscription is $155 per year. For EAVLD-members, a subscription is available for $90 per year (print+E-access) or even only $60 per year (E-access only). In euro's this is only something like €70, resp. €45 at the moment. This discounted JVDI subscription is for EAVLD members only and is an individual subscription. Periodically, the publisher will send a list of EAVLD subscribers to the secretary who will confirm their continued membership of EAVLD. If you stop being a member of EAVLD, or haven't paid your EAVLD membership fees, you will no longer qualify for a discounted subscription to the JVDI.

A special secure online order form has been created for EAVLD members (https://secured.sagepub.com/jvdi.html). You can go there and immediately subscribe, paying by credit card. The promotion code that is needed to obtain the discount is pre-populated to the form.

You can also call SAGE directly if you prefer. The promotion code is E00526.

They should contact their nearest SAGE office below:

SAGE US -- +1-800-818-7243

SAGE UK -- +44 (0) 20 7 324 8500

We hope that many of our members will find this a useful additional service.

We would also like to encourage EAVLD members to submit suitable papers to JVDI.

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EAVLD on LinkedIn

LinkedIn (www.linkedin.com) is the world's largest professional network with over 100 million members and growing rapidly. LinkedIn is a way to stay connected to your most valued colleagues, keep track of them, communicate to them, but also to expand your network through them. Also for career development and finding (international) job opportunities, LinkedIn is becoming more and more important.

EAVLD now also has a group on LinkedIn, which you can join and use to connect to other professionals in the same field (including hopefully many members of EAVLD!). Close to 50% of the current EAVLD members already have a profile on LinkedIn, for others it is very easy to join both LinkedIn and the EAVLD group.

Through the group you can also easily connect to other group members. For EAVLD members this is an opportunity to not only connect to other members within the EAVLD, but also to professionals in the same field who are not (yet) a member of EAVLD. For non-EAVLD members, this is an opportunity to stay informed about the main activities of EAVLD.

We encourage everybody to join our group at LinkedIn and help to expand it with relevant colleagues in the field of veterinary diagnostics, whether they are members of the EAVLD or not (the LinkedIn group is an open group which anybody can join!).

Update on Coccidiosis

Coccidiosis is a worldwide problem in intensively reared broiler chickens caused by parasites of the genus *Eimeria* which cause mild to severe infections in the intestinal tract. Traditionally coccidiosis has been controlled by the incorporation of anticoccidial drugs in the feed. However, resistance to these anticoccidials can result in outbreaks of coccidiosis, and concerns for food and environmental residue problems have led to proposals within the EU for their use to be reduced. One class of anticoccidials, the ionophores, are derived from antibiotics and are considered to help in the control of Necrotic Enteritis exacerbated by a combination of infections with *Eimeria* spp. and *Clostridium perfringens*, so it would be of great concern to poultry producers if these were withdrawn.

Fig.1 *Eimeria acervulina* oocysts

Fig. 2 Lesions caused by *Eimeria necatrix*

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Coccidiosis in chickens can also be controlled by the use of live attenuated vaccines such as Paracox™ which was first used in Europe in 1989 in broiler breeder flocks. This was followed in 2000 by the introduction of Paracox-5™ for use in broilers reared for food. These vaccines work by circulating in the bird population following vaccination at day-old, continually re-vaccinating the birds and thus imparting immunity to wild-type, possibly pathogenic, strains of parasites. In the US and other parts of the world vaccines are also available, but do not always contain attenuated strains of *Eimera* which means that they contain potentially virulent strains. Because of this the EU does not allow their use in European poultry flocks. Future developments for vaccines against coccidiosis will almost certainly involve sub-unit or molecular involvement, but unfortunately these are still a few years away.

Diagnosis of coccidiosis involves a number of well established techniques, plus some new developments. Traditionally diagnosis involves counting oocysts, identifying the species of *Eimeria* involved (there are 7 in the chicken, not all of which are pathogenic), *post mortem* examination, and lesion scoring of a small selection of an affected flock.

All these methods are valid, but as always, a little knowledge can be dangerous! For instance, it is of no use counting oocysts if you can't identify the species of *Eimeria* present as those that are the least pathogenic often produce the most oocysts to no detriment to the birds. Also, even if you can identify the species, but forget to look at the vaccination history of the flock you might be erroneously diagnosing coccidiosis even though the birds had been vaccinated and the oocysts were supposed to be there!

Because of the short life-cycle of chicken Eimerias (4-8 days) lesion scoring on the farm can often throw up unreliable results as the day of sampling may be at the wrong time in the cycle. For this reason it should be regarded as a "snapshot" of the disease status of that bird at one moment in time.

Ideally, in order to understand the coccidiosis status of a broiler flock weekly monitoring of the oocysts in the litter should be carried out. Traditionally this has involved taking litter samples to a laboratory and using salt flotation and McMaster counting techniques to establish the numbers of oocysts present. Identification of the species involved requires great skill, training and experience because although there are books with pretty pictures of idealised oocysts of all seven species, factors such as anticoccidial drug-pressure, litter condition, concurrent diseases etc. can radically alter their appearance.

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As with most branches of biology, traditional methods of diagnosis are slowly being replaced with state-of-the-art molecular techniques, and AHVLA have been involved with the Institute for Animal Health and the Royal Veterinary College (London) in developing and field trialling PCR methodologies.

There are now real-time polymerase chain reaction assays available for the specific detection and quantification of all seven chicken *Eimeria* species, and these should make it easier for less experienced scientists to identify the species and numbers present in a flock once they become widely available.

Future developments will see the sequencing of individual isolates of all the species, including vaccinal strains, and this will be a very valuable tool for firstly monitoring the progress of the vaccines in a flock, and secondly identifying the breakdown of protection by more pathogenic strains. Work even further into the future may enable scientists to identify individual sub-sequences of strains that may be candidates for potential new novel vaccines.

One thing is certain – coccidiosis will continue to cause problems for the poultry industry, and even after 80 years of research at AHVLA it will keep parasitologists busy for the foreseeable future!

Ralph Marshall CBiol FSB

Scientific Services Unit, Animal Health and Veterinary Laboratories Agency (Weybridge)

Woodham Lane, New Haw, Addlestone, Surrey KT15 3NB, UK