





Press Release

Ghent, 6 September 2019.

The third joint Working Group and Management Committee meeting of COMBAR was held from 27 to 29 August 2019 at Het Pand situated in the historical centre of Ghent (Belgium).

125 participants from 31 countries and 5 continents attended the meeting. Key opinion leaders and specialists discussed their research and innovations for sustainable helminth control over the three days. The central theme of the meeting was "**Anthelmintic resistance in ruminants: Who cares?**". It addressed the topic around four main themes, with 4 keynote and 14 oral presentations:

COMBAR

Aims to advance research on the prevention of anthelmintic resistance in helminth parasites of ruminants & disseminate knowledge amongst stakeholders

(i) Diagnosing the impact of anthelmintic resistance

Antimicrobial resistance (AMR) is globally one of the most important societal challenges and economics plays an important role in combatting AMR, said Jarkko Niemi (Natural Resources Institute Finland, Finland). Although anthelmintic resistance (AR) may be considered part of the bigger AMR problem, it should not be confused with antibiotic resistance as the involved pathogens, drugs, impacts and mechanisms are different. Financial impacts of AR to farming can nevertheless be substantial.

(ii) Sustainable parasite control

Everybody has a role to play in sustainable parasite control said Gustavo Sabatini (Boehringer-Ingelheim Animal Health). The pharmaceutical industry has an important role in directing investments towards the development of efficacious parasite control solutions that are both safe to the environment and food consumer. If every stakeholder plays its role accordingly, it will be possible to extend the lifetime of current antiparasitics with negligible harm to the environment and, at the same time, to develop the solutions for sustainable and effective parasite control programmes in the future.

(iii) Enhancing transatlantic collaboration on helminth research

Consideration of the many factors that affect the outcome and interpretation of the current field test for AR (the faecal egg count reduction test, FECRT) has made it obvious that a simple protocol leads to significant variation between test outcomes, said Ray Kaplan (University of Georgia, USA). He is leading a group of specialists developing new World Association for the Advancement of Veterinary Parasitology (WAAVP) guidelines for field diagnosis of AR. He proposed that separate procedures should be followed for clinical [field] and research use.

(iv) Preserving drug efficacy







Deborah Maxwell (ParaBoss, Australia) said that in Australia they have eight regional programmes based on a cohesive set of anthelmintic resistance management principles that are adapted to regional conditions. Adapting grazing management results in immediate reductions in the need to use anthelmintics, while genetic breeding for sheep resistance has not given clear results so far.

A session was also devoted to young scientists to report on their short-term scientific missions (STSM). Six young scientists had the opportunity to present the outcome of their STSM.

This experience was important for my personal and scientific growth, said Alessandra Amadesi (University of Naples Federico II, Italy), because it was a great opportunity to learn and improve techniques for the diagnosis of worm infections in cattle.

Knowledge and skills acquired during this STSM enabled me to introduce new anthelmintic resistance diagnostic methods to our laboratory, said Marcin Mickiewicz (Warsaw University of Life Sciences, Poland)

At the mid-point of the cost action, COMBAR has made considerable progress in fulfilling its aims. To date, 32 countries are part of the action with 180 working group members. Nearly 40% of all

Working groups

WG1 Improving diagnostics

WG2 Understanding the socio-economic aspects of sustainable anthelmintic usage

WG3 Innovative, sustainable control methods

participants are early-career investigators. Fourteen STSMs have been completed so far involving 12 countries.

Two successful training schools were held so far:

(i) "Advances in the field diagnosis of helminth infections and anthelmintic resistance in ruminants" in 2019 in Salerno, Italy involving 25 participants from 17 countries.

(ii) "Socio-economic aspects of helminth infections and AR" in 2018 in Bruges, Belgium involving 28 participants from 13 countries.

Progress has been made with the communication of COMBAR activities at scientific conferences and stakeholder meetings. To date, COMBAR contributed to 5 scientific publications including two keyopinion papers "<u>100 Questions in Livestock Helminthology Research</u>" and "<u>Control of helminth</u> <u>ruminant infections by 2030</u>"

The next meeting is planned for early October 2020 in Kaunas, Lithuania.









Group photo of third COMBAR Joint Working Group meeting, Ghent, Belgium (27-29 August 2019)

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