



IABS
Avoiding Antimicrobial Resistance:
Veterinary Use of Phages for Prevention, Therapy and Control of Bacterial Infections

Virtual meeting
November 19-20, 2024

The Veterinary Biologicals Committee (VBC) of the International Alliance for Biological Standardization (IABS; for description see below) will hold a scientific workshop on quality, safety and efficacy of bacteriophages for veterinary use. Veterinary medicine is confronted by the need to substantially reduce the use of antimicrobials as part of a joint effort by both human and veterinary medicine (One Health) to fight against antimicrobial resistance (AMR). Bacteriophages used alone, or in combination with antimicrobials are a supplementary tool to conventional antibiotics and have been developed for use in several areas, e.g. in aquaculture, bovine mastitis, pig diarrhea, control of salmonella in pigs, as well as for treatment of conditions in individual animals such as dermatitis in dogs.

Therefore, the workshop will focus on the use of phages to reduce antimicrobials use:

- Therapeutic use of phages in production and companions animals;
- Prophylactic use of phages in terrestrial and aquatic situations with the aim to reduce infectious pressure in animal holdings.

This workshop will create an ideal environment for discussion between regulators, academics and companies to facilitate the development of phages as an additional tool to reduce AMR and as a therapeutic tool for individual/herd treatment of resistant bacterial infections.

This meeting of the different stakeholders should promote a better understanding between regulators, researchers and companies developing phages: regulators can explain the existing regulatory framework (e.g. EMA guideline and EP chapter will be proposed for adoption before the holding of the meeting) and discuss their interpretation; companies can explain the drawbacks/difficulties in the industrial development of phages and possible solutions. This meeting will conclude with concrete suggestions on how access to market for phage products can be improved.

Scientific Committee

Etienne **Thiry** – chair, VBC vice chair, ULiège
Mia **Jakava-Viljanen** – VBC chair, Finnish Food Authority
Carmen **Jungbäck** – VBC member, IABS board secretary
Hans P. **Kleppen**
Bryce **Lunt** – Zoetis
David **Mackay** – VBC member
Paul **Midtlyng** – VBC member, Aquamedic AS
Egbert **Mundt** – EVA Pharma
Dusan **Palic** - VBC member, U München
Jean-Paul **Pirnay**- Queen Astrid Military Hospital, Brussels
Damien **Thiry** – ULiège
Jeffrey L. **Watts** – Zoetis

Workshop Program

Times are indicated CET

Day 1: Tuesday, November 19, 2024

1:00 pm *Registration*

2:00 pm **Opening of the meeting - Welcome and introduction to the meeting**
Etienne Thiry, ULiège, Belgium

Keynote Session

2:10 pm **Keynote lecture: What is a phage?**

Session I: Field use of phages to improve animal and human health: from population to individual treatment

2:40 pm **Use of phage in aquaculture: are we treating the water or the animals?**

3:10 pm **In poultry: Do we treat the feed or the animals? Reducing Campylobacter in the rearing environment**

3:30 pm **Use to control Campylobacter or Salmonella in pork production**

3:50 pm *Break*

4:20 pm **Use in cattle: Bacteriophages to fight mastitis in cows - experiences from pilot studies**

4:40 pm **Phage therapy in humans, the "individual patient" approach**

- 5:00 pm **Use in companion animals dogs – equine: magistral preparation for individual treatment**
- 5:20 pm *Q&A Session 1*
- 6:00 pm *End of Day 1*

Day 2: Wednesday, November 20, 2024

Session II: Poster Session

- 1:00 pm **Each scientist or company (poster describing his phage activity) is welcome. Producing one ppt slide before the meeting; 3 min. presentation; questions in the chat**
- 2:00 pm **Welcome address**

Session III: Panel discussion: How to bring phage products for the treatment of animals to market

- 2:05 pm
- **Regulating phages as veterinary medicines in the EU; Eligibility, requirements and challenges**
 - **Regulating phages as veterinary medicines in the USA Eligibility, requirements and challenges**
 - **Regulating phages as feed additives in EU; Eligibility, requirements and challenges**
 - **Regulating phages as a particular type of veterinary medicine e.g. magisterial preparations/specials/prescription products/other**
 - **Manufacturers experience**
- 3:00 pm *Break*
- 3:30 pm **Panel Discussion**
- **How to choose the appropriate pathway?**
 - **What are the quality requirements, including manufacture / GMP that apply?**
 - **Are requirements for safety and efficacy sufficiently defined?**
 - **Scientific challenges that the panel would like to draw attention to?**
- 5:00 pm *Closing remarks*
End of the meeting