



IABS – VBC Phages Meeting

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



19-20 November 2024

Vesale Bioscience at a Glance



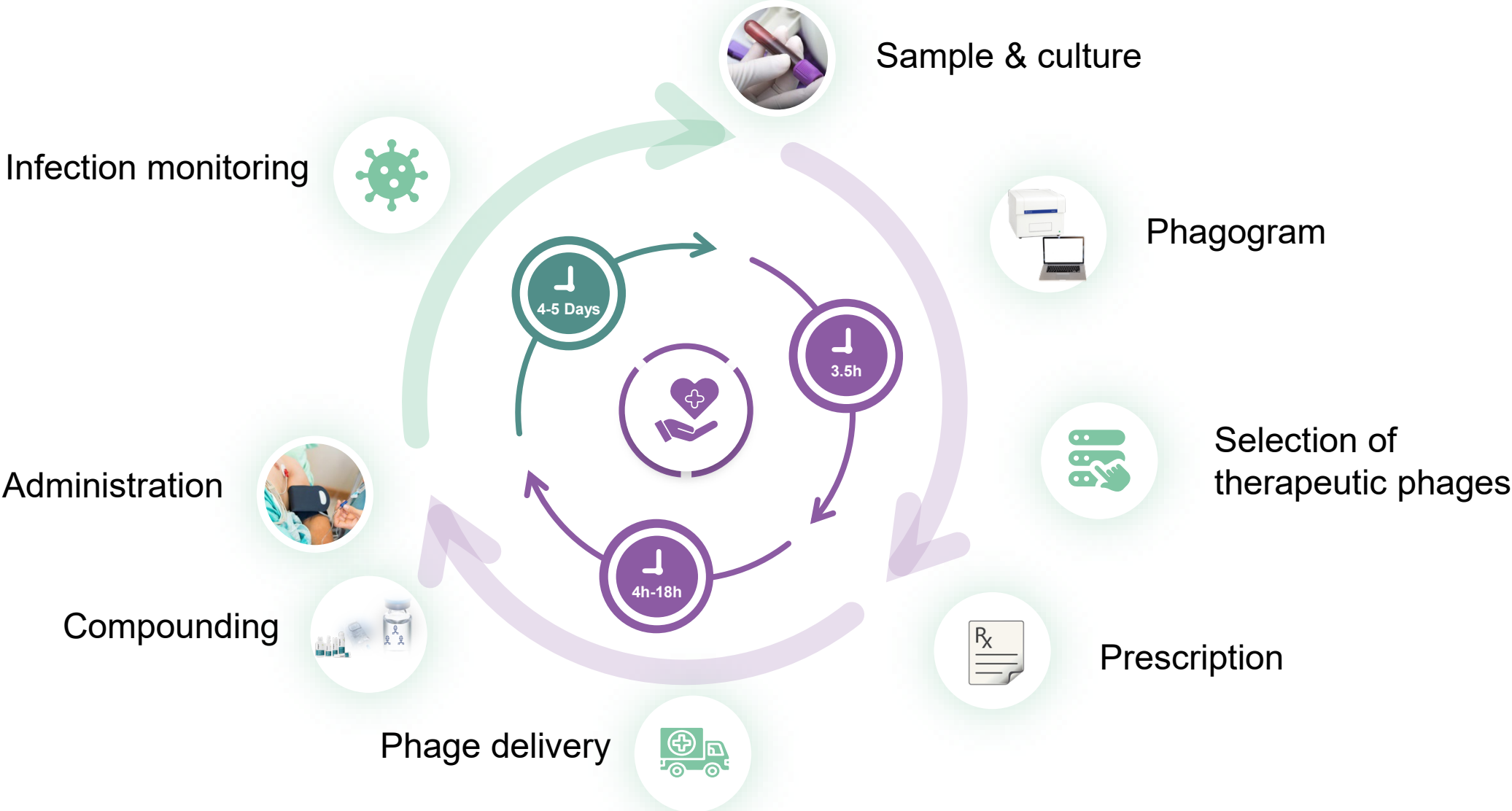
A great place to work

- Fully integrated Bio-Pharmaceutical company
- Dedicated to Phage therapy for Human and Animal infections
- Activities:
 - Research & Development
 - Manufacturing and Production development
 - Development and production In Vitro Diagnostic instruments for Phage Susceptibility testing
 - Own BSL2 lab and facilities

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A unique model for a scalable personalized phage therapy



Vesale Bioscience's model for Personalized Phage Therapy

Three critical steps performing a Personalized phage treatment

1. Diagnostic step: Susceptibility testing using the automated Phagogram

- **High performance** and **easy-to-use**
- No phage knowledge necessary
- Use the same sample as antibiogram
- Up-to **38 phages** per patient sample in **3.5 hours**
- Available for **on-site** use in all hospitals



2. The phage collection and phage production

- **1.100+ Phages** in Library
- **Substantial coverage** of the 4 main bacteria responsible for 70% of **AMR infections (ESKP*)**, resulting in **high probability** to assemble an **active** personalized phage cocktail
- Own **BSL2 lab** (LLN) and developing **GMP phage manufacturing** facility
- **Highly flexible** manufacturing process for production of a variety of phages



3. The Personalized phage treatment

- **Compounding** individual phages into a **Personalized treatment cocktail** (magistral preparation)
- Made by hospital Pharmacist or outsourced to a **Compounding Company**
- Simple, straight forward formulations for **topical use, IV application, nebulisation, bladder rinsing**



Vetphage project: personalized phage therapy for veterinary applications?

- Phage treatment for cow mastitis
- Use of automated phagogram to determine adapted phage cocktail
- Personalisation of phage cocktail on a pharm level

Vetphage

is a pilot project to explore possibilities of Phage therapy in veterinary

However, opened many questions for manufacturer and developer of veterinary phage medicinal products

Phage Therapy for Veterinary: questions from a Developer/ Manufacturer point of view

Human Phage Therapy

Technical aspects

- Most successful approach: personalized phage therapy model
- Synergy: best success in combination with antibiotics
- Clear model: susceptibility test – formulation – application

Regulatory

- Legal framework still vague and high level

Commercially

- Costprice and reimbursement in human therapy
- Personalized therapy is quite expensive

Veterinary phage therapy

Technical aspects

- How far can we personalize phage therapy in veterinary?
- Do we want a combination with antibiotics?
- How to apply in veterinary? How to make a personalized product for veterinary applications?

Regulatory

- Legal framework for developing veterinary products is clear (see guidelines) but practical?
- Obligation of centralized registration.
- What about flexibility for personalized treatments?

Commercially

- Costprice of phage therapy adapted to veterinary applications?



Thank you for your attention

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