



3rd BSVoM SYMPOSIUM, Brussels 2024 PROGRAM

8h30: Registration & poster set-up

9h00: Welcome

9h10-10h35: Fundamental research in phage ecology and biology – Part I

Chair:

9h10: Keynote lecture: Prof. Vasili Haurlyuk (University of Lund) - Bioinformatics-driven discovery of novel antiphage immunity systems (30 min talk/10 min QA)

9h50: Stan Brouns (Delft University of Technology) - Bacterial homologs of innate eukaryotic antiviral defenses provide phage protection (10 min talk/5 min QA)

10h05: Albinas Cepauskas (ULB) - A versatile bacterial innate immunity protein directly senses two disparate phage proteins (10 min talk/5 min QA)

10h20: Maarten Boon (KU Leuven) - Unraveling phage transcription architectures with ONT-cappable-seq (10 min talk/5 min QA)

10h35-11h05: Coffee Break

11h05-12h15: Fundamental research in phage ecology and biology – Part II

Chair:

11h05: Keynote lecture: Prof. Joana Azeredo (University of Minho) - Strategies for Enhancing Phage Therapy Against Biofilm Infections: Overcoming Challenges and Maximizing Efficacy (30 min talk/10min Q&A)

11h45: Nikolas Basler (KU Leuven) - Bacteriophages in a large European sample set of honeybees (10 min talk/5 min QA)

12h00: Artyom Egorov (Lund University) - iLund4u: hotspot annotation algorithm on the scale of millions of sequences (10 min talk/5 min QA)





12h15-12h45: Student pitches - 3 min each, no QA

- 1. Céline Antoine (University of Liège)** - In Vitro Investigation of Phage Targeting E. coli K1 in Pregnant Donors' Intestinal Microbiota
- 2. Laura Bessems (University Hospitals Leuven & KU Leuven)** - Neutralising antibody response against locally applied bacteriophages in patients with musculoskeletal infections
- 3. Yorben Casters (KU Leuven)** - Phage-host co-evolution has led to distinct generalized transduction strategies
- 4. Sophie Craig (ULB)** - Discovery and characterisation of a novel bacterial defence system
- 5. Ilaria De Angelis (Ghent University)** - Machine learning tools versus manual approach for detection of Klebsiella phage depolymerases
- 6. Viktor Devlieghere (KU Leuven & ILVO)** - Unlocking Bacteriophages' True Potential: Exploring Sustainable Solutions to Control Cherry Canker
- 7. Mathilde Hulsens (Ghent University)** - Organization of the hyperbranched receptor-binding protein system in Klebsiella jumbo phages ϕ Kp24 and FKAN
- 8. Hannelore Longin (KU Leuven)** - Reannotating phage hypothetical proteins with AlphaFold2: the acetyltransferase case
- 9. Wouter Magnus (VUB)** - Transcription regulatory program of the SSV1 virus infecting the thermoacidophilic archaeon *Saccharolobus solfataricus*
- 10. Manon Nuytten (UCLouvain)** - A journey into the adsorption mechanisms of *Bacillus cereus* phages
- 11. Maria Ioanna Papadaki (KULeuven)** - Exploring the gut virome development in healthy Bangladeshi infants during early life

12h45-13h00: Group picture

13h00-14h30: Lunch & poster session





14h30-17h00: Present and future applications of phages

Chair:

14h30: Keynote lecture: Prof. David Devolder (KU Leuven) - What the pharmacist needs to know about phage preparation: the UZ Leuven experience (30 min talk/10min Q&A)

15h10: Mathieu De Jode (Sciensano) - Five years of therapeutic phage quality control in Belgium: lessons learned (10 min talk/5 min QA)

15h25: Tea Glonti (Queen Astrid Military Hospital) - Designing potent therapeutic cocktails using the naturally occurring bacteriophage grouping model (10 min talk/5 min QA)

15h40: Meaghan Castledine (University of Exeter) - Importance of population heterogeneity in predicting phage therapy treatment outcomes in a case of MRSA-PVL necrotizing fasciitis (10 min talk/5 min QA)

15h55: Lene Bens (KU Leuven) - Phage therapy: a challenging opportunity for HS (10 min talk/5 min QA)

16h10: Niels Vander Elst (Karolinska Institutet) - Synergistic potential of bacteriophage-derived endolysin cpl-1 and beta-lactam antibiotics for the treatment of penicillin-resistant pneumococcal meningitis (10 min talk/5 min QA)

16h25: Dorien Dams (Ghent University) - A VersaTile approach to reprogram and broaden the specificity of R2 tailocins towards E. coli and K. pneumoniae (10 min talk/5 min QA)

16h40: Sponsor talk: - 15 min talk/5 min QA

17h00: Prize winners' announcements, closing remarks & reception

19h00: Symposium Dinner (optional)

