

# ***Centennial Celebration of Bacteriophage Research***

**Tbilisi, Georgia on June 26-29, 2017**

## **PROGRAMME**

**June 26, 2017**

### **Opening Ceremony**

**Venue: Ivane Javakhishvili Tbilisi State University**

**Conference Hall**

**Address: 1, Chavchavadze av., 2<sup>nd</sup> floor**

**13.00-15.00 Registration**

**15.00 – 15.30 WELCOMING SPEECHES:**

**Mzia Kutateladze, Eliava Institute, Director, Tbilisi, Georgia**

**Alexander Jejelava, Minister of Education and Science, Tbilisi, Georgia**

**George Sharvashidze, Ivane Javakhishvili Tbilisi State University, Rector, Tbilisi, Georgia**

**Pascal Meunier, H.E. Ambassador of France in Georgia**

**KEY NOTE SPEECHES:**

**15.30 – 16.15 "100 years of Bacteriophages: What we learnt and what we will learn",  
Andrew Kropinski, Guelph University, Canada**

**16:15 – 17:00 "Viruses of Bacteria and Archaea: Major Players in the Biosphere", David  
Prangishvili, Institute Pasteur, France**

**18.00 – 20.00 Welcoming party and concert at the Ivane Javakhishvili Tbilisi State  
University**

**June 27, 2017**

Venue: George Eliava Institute of Bacteriophages, Microbiology and Virology,

Address: 3, Gotua street, Tbilisi

Conference Hall

## **SESSION 1**

**Chairs: Andrew Kropinski, Canada & David Prangishvili, France**

**10.00 – 10.20 – “Bacteriophage Institute, its history and current developments”, Mzia Kutateladze, Eliava Institute, Georgia**

**10.20- 10.40 – “Felix D’Herelle and his discovery”, Nina Chanishvili, Eliava Institute, Georgia**

**10.40- 11.10 Coffee break**

## **SESSION 2**

**Chairs: Mathias Middelboe, Denmark & Andrew Kropinski, Canada**

**11.10 – 11.30 “The role of phage and related genetic elements in the evolution of the *Clostridium difficile* genome”, Peter Mullany, University College London, UK**

**11.30 – 11.50 “ Bacteriophages against *B. anthracis* (biology and genome)”, Darejan Bolkvadze, Eliava IBMV, Georgia & Jason Farlow , Farlow Scientific Consulting, USA**

**11.50 – 12.10 “Stumbling across the same phage: Comparative genomics of widespread temperate phages infecting the fish pathogen *Vibrio anguillarum*”, Mathias Middelboe, University of Copenhagen, Denmark**

**12.10 – 12.30 “Assessing the transcriptomic impact of eight virulent phages on *Pseudomonas* to evaluate their therapeutic potential”, Bob Blasdel, KU Leuven, Belgium**

**12.30 – 13.30 – Lunch**

## **SESSION 3**

**Chairs: Aidan Coffey, Ireland & Wolfgang Bayer, Germany**

**13.30 – 13.50 "Use of bacteriophage-derived peptidoglycan hydrolase enzymes to eliminate antibiotic resistant *Staphylococcus aureus* and *Clostridium difficile*", Aidan Coffey, Cork Institute of Technology, Ireland**

13.50 – 14.10 “Characterization of activity of the bacteriophage endolysin HY-133 for rapid eradication of *Staphylococcus aureus*”, Evgeny Idelevich, University Hospital Munster, Germany

14.10 – 14.30 “Killing activity and protective efficacy of recombinant  $\gamma$ -phage lysin and synthetic theta defenses against *Bacillus anthracis*”, Wolfgang Beyer, University of Hohenheim, Germany

14.30-15.10 “Antibacterial Activity of a Novel AMP-Modified Lysin Against mastitis *Staphylococcus* in China”, Wang Ran, Jiangsu Academy of Agricultural Science, Nanjing, China

**15.10 – 15.30 – Coffee break**

## **SESSION 4**

**Chairs: Paul Barrow, UK & Ran Wang, China**

15.30 – 15.50 “Bacteriophage use in a veterinary context”, Paul Barrow, University of Nottingham, UK

15.50 – 16.10 “BAFADOR® - new antibacterial agent against fish pathogens, Ewelina A. Wójcik, Poland

16.10 – 16.30 “Bacteriophage Therapy Resolves Resistant Bacterial Sepsis: Proof of Concept”, Daniel Gelman, Hebrew University, Israel

16.30 – 16.50 “Potential of specific phages for subtyping and biocontrol of *V. cholerae* O1”, Nino Janelidze, Eliava Institute, Georgia

16:50 – 17:10 “Bacteriophage therapy and prophylaxis for pandemic *Vibrio* strain”, Jin Woo Jun, Seoul National University, South Korea

**17.15 – 18.15 – Poster session**

**June 28, 2017**

## **SESSION 5**

**Chairs: Laurent Debarbieux, France & Marina Tediashvili, Georgia**

10.00 – 10.20 “ Phage application in Germany: new approaches”, Christine Rhode, DSMZ, Germany

10.20 – 10.40 “Interactions Bacteriophage Bacteria in the gut: what have we learn so far from murine models?”, Laurent Debarbieux, Pasteur Institute, France

10.40 – 11.00 “Phage therapy research in the Queen Astrid Military Hospital in Brussels”, Jean-Paul Pirnay, Queen Astrid Military Hospital, Belgium

11.00 – 11.20 “ Bacteriophages for treatment of urinary tract infections: A double blind, randomized, placebo supported clinical trial”, Alexander Ujmajuridze, National Center of Urology, Georgia

**11.20 – 11.50 – Coffee break**

## **SESSION 6**

**Chairs: Gregory Resch, Switzerland & Jean-Paul Pirnay, Belgium**

11.50- 12.10 “Application of bacteriophages in Dermatology”, Nata Kiladze, Tbilisi State University, Georgia

12.10 – 12.30 “ Phage therapy in dentistry?” Ronen Hazan, Hebrew University, Institute of Dental and Oral Science, Jerusalem, Israel

12.30 – 12.50 “Phage therapy in Ophthalmology, case study”, Nino Karanadze, Tbilisi State University, Georgia

12.50 – 13.10 “Microbiome and stable core virome after human fecal transfer”, Karin Moelling, University of Zurich, Switzerland

**13.10 – 14.30 – Lunch**

## **SESSION 7**

**Chairs: Eric Valade, France & Nina Chanishvili, Georgia**

14.30 – 14.50 “Potential application of phages for subtyping and control of medically important highly pathogenic bacteria”, Eric Valade, IRBA, France

14.50 – 15.10 “Pro- and anti-inflammatory responses of peripheral blood monocytes induced by *Staphylococcus aureus* and *Pseudomonas aeruginosa* phages”, Jonas Van Belleghem, Gent University, Belgium

15.10 – 15.30 “On the efficacy of phage therapy in endocarditis”, Gregory Resch, University of Lausanne, Switzerland

**15:30 – 18.00 - Excursion to Mtskheta - Old Capital of Georgia**

**18.00 – 21.00 - Gala dinner in the restaurant (in Mtskheta)**

**June 29, 2017**

**SESSION 8**

**Chairs: Vlad Tarabara, US & Eka Jaiani, Georgia**

**10.00- 10.20 “Bacteriophage effectiveness in hard surfaces decontamination”, Elizabetta Caselli, University of Ferrara, Italy**

**10.20 – 10.40 “Antimicrobial activity of newly isolated bacteriophages against planktonic and biofilm bacteria involved in prosthetic joint infections“, Mariagrazia Di Luca, Charite, Germany**

**10.40 – 11:00 “Phage mediated transfer of antibiotic-resistant genes in water environments”, Eka Jaiani, Eliava Institute**

**11.00 – 11.20 "*Podoviridae* phages as surrogates for validating efficacy of membrane filters", Vlad Tarabara, Michigan State University, USA**

**11.20 – 11.50 – Coffee break**

**SESSION 9**

**Chairs: Gabriel Almeida, Finland & Rudiger Torjok, Germany**

**11.50 – 12.10 “Digital biology automates the genetic programming of phages”, Rüdiger Torjok, Karlsruhe Institute for Technology, Institute for Technology Assessment and Systems Analysis, Germany**

**12.10 – 12.30 “Bioluminescent’ Reporter Phage for Detection of *Bacillus anthracis* from environmental samples”, Cathy Nguyen, Guild BioSciences, USA**

**12.30 – 12.50 "Imaging Phage-bacterium Interaction at Sub-nanometer Resolution Using Helium Ion Microscopy", Gabriel Almeida, Jyvaskyla University, Finland**

**12.50 – 13:10 “Understanding the dynamics of mycobacteriophage-mycobacteria interaction using mycobacteriophage D29-*Mycobacterium smegmatis* as the model system”, Sourabh Samaddar, Bose Institute, India**

**12.50 – 13.50 Lunch**

**SESSION 10**

**Chairs: Mzia Kutateladze, Georgia & Scott Stibitz, US**

**13.50 - 14.10 “Multidrug resistant clinical bacterial isolates from the Georgian acute care hospitals are highly susceptible to bacteriophages”, Marina Tediashvili, Eliava Institute, Georgia**

**14.10 – 14.30 “Formulation and Encapsulation of Bacteriophages for Targeted Controlled Release”, Danish Malik, Loughborough University, UK**

**14:30 – 14:50 “Phage therapy experience at the Eliava Phage Therapy Center”, Naomi Hoyle, Eliava Phage Therapy Center, Georgia**

**14.50 - 15.10 “FDA/CBER’s thoughts about regulation of phage therapy”, Earle S. Stibitz, FDA, USA**

**15.10 - 15.30 Coffee break**

**15.30 – 17.30 – Round table discussion (Leaders: Gregory Resch, Christine Rhode, Jean-Paul Pirnay)**

**17.30 – 18.00 - Closing remarks**