

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., 2nd 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 γ -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

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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, Jyväskylä 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