

5th World Congress on Targeting Infectious Diseases

TARGETING PHAGE & ANTIBIOTIC RESISTANCE

Phage therapy and other innovative ideas

May 17 - 18, 2018

Florence - Italy



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CONFIRMED SPEAKERS



Impact of virulent bacteriophages on vibrio cholerae infection and their use in preventing cholera

Minmin Yen, Tufts University, USA



Fighting multi-drug resistant Klebsiella pneumoniae by using lytic phages

Marco Maria D'Andrea, University of Siena, Italy



Control of catheter associated biofilms through efflux inhibition

Brian Jones, University of Brighton, United Kingdom



Microbiota & medicine revolution: the strategic role of phage

Marvin Edeas
Institut Cochin, University Paris Descartes, France



Lytic bacteriophages in the treatment of biofilm-forming bacteria involved in prosthetic joint infections

Mariagrazia Di Luca
Charité-Universitätsmedizin, Germany



Microencapsulation of purified bacteriophages for targeted therapeutic applications

Danish Malik
Loughborough University, United Kingdom



Microarray patches for prevention and treatment of infectious diseases and their potential for reducing antibiotic resistance

Ryan Donnelly
Queen's University Belfast, United Kingdom



Phage-based antimicrobials: novel approaches for managing drug-resistant bacteria

Alexander Sulakvelidze
Intralytix Inc., USA



Antimicrobial discovery from extreme halophiles

Brendan Gilmore
Queen's University Belfast, United Kingdom



Development of Infection-responsive surface coatings for bacteriophage delivery in the catheterised urinary tract

Scarlet Milo
University of Bath, United Kingdom



Reincarnation of a staphylococcal pathogenicity island as an antibacterial drone

Richard Novick
New York University, USA



Development and use of personalized bacteriophage-based therapeutic cocktails to treat a patient with a disseminated resistant Acinetobacter baumannii infection

Robert T. Schooley, University of California, USA

Topics:

- Phage Therapy 2018: recent advances & challenges
- Innovations against antibiotic resistance

Tracks:

- Phage isolation and characterization
- Phage/Host interaction
- Phage therapy & pathologies
- Clinical Trials
- Strategies to combat antibiotic resistance
- New generation of antibiotics
- Veterinary settings
- Agri-Food industries

Early Bird Registration:
April 17, 2018

Students: 370 €
Academics: 470 €
Industrials: 770 €

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Day 1 – May 17, 2018

7h30 Registration & welcoming of attendees – Badges & Abstracts book Distribution

8h55 Opening Ceremony

9h00 General Introduction: How to overcome and combat antibiotic resistance in 2018?

Session 1: Phage Therapy 2018: recent advances & challenges

9h20 **Fighting multi-drug resistant *Klebsiella pneumoniae* by using lytic phages**
Marco Maria D'Andrea, Università di Siena, Italy

9h45 **Control of catheter associated biofilms through efflux inhibition**
Brian Jones, Queen Victoria Hospital NHS Foundation Trust, United Kingdom

10h10 **Impact of virulent bacteriophages on vibrio cholerae infection and their use in preventing cholera**
Minmin Yen, Tufts University, USA

10h35 Coffee Break, Poster & Networking Session

11h20 **Lytic bacteriophages in the treatment of biofilm-forming bacteria involved in prosthetic joint infections**
Mariagrazia Di Luca, Charité – Universitätsmedizin Berlin Hospital, Germany

11h45 **Microencapsulation of purified bacteriophages for targeted therapeutic applications**
Danish Malik, Loughborough University, United Kingdom

12h10 **Development of infection-responsive surface coatings for bacteriophage delivery in the catheterised urinary tract**
Scarlet Milo, Queen Victoria Hospital NHS Foundation Trust, United Kingdom

12h35 Lunch Break, Poster & Networking Session

14h00 **Development and use of personalized bacteriophage-based therapeutic cocktails to treat a patient with a disseminated resistant *Acinetobacter baumannii* infection**
Robert T. Schooley, University of California, USA

Short Oral Presentations (7 minutes for presentation + 3 minutes for questions)

14h25 **Selection and characterisation of phages able to degrade biofilm produced by clinical isolates of *E. faecalis***
Pasquale Marmo, University of Roma Tor Vergata, Italy

14h35 **Analysis of the conserved genes present in MRSA strains: Can they make phage therapy harder than expected?**
Ignacio Mir-Sanchis, University of Chicago, USA

- 14h55 State-of-the-art of modeling in vivo dynamics of naturally-occurring phages and in vivo dynamics of therapeutic phages**
Victoriya Volkova, Kansas State University, USA
- 15h05 Bacteriophage therapy and urinary tract infections**
Tamara Perepanova, S.R. Institute of Urology and Interventional Radiology, Russia
- 15h15 Experience and perspectives of phage therapy of cardiovascular implant-associated infections**
Evgenii Rubalskii, Hannover Medical School, Germany
- 15h25 Concept of individualized medicine based on personalized phage therapy for intensive care unit patients suffering from healthcare-associated infections**
Andrey Aleshkin, G. N. Gabrichevsky Moscow Research Institute for Epidemiology and Microbiology, Russia
- 15h35 Coffee Break, Poster & Networking Session
- 16h35 Safe & active sustained release of phages in gastro-intestinal tract**
Farzaneh Moghtader, Hacettepe University, Turkey
- 16h45 Phages intended for preventing and treating infections caused by paenibacillus larvae in honey bee larvae**
Ewa Jonczyk-Matysiak, Polish Academy of Sciences, Poland
- 16h55 Mycobacteriophage based platforms to discover drug targets for mycobacteria**
Sujoy Das Gupta, Bose Institute, India
- 17h05 Efficient in vivo phage therapy via immunological cloaking**
Yoon Sung Nam, Korea Advanced Institute of Science & Technology, Korea
- 17h10 Bacteriophage Φ SA012 has a broad host range against *Staphylococcus aureus* and effective lytic capacity in a mouse mastitis model**
Hidetomo Iwano, Rakuno Gakuen University, Japan
- 17h20 Comparison of effectiveness of experimental phage cocktail, single phage and commonly used antibiotics in eradication of *salmonella enterica* serotypes found in poultry**
Katarzyna Kosznik-Kwaśnicka, Polish Academy of Sciences, Poland
- 17h30 Acenitobacter prophage mining for production of specific endolysins**
Ahmed Sahib Abdulamir, Alnahrain University, Iraq
- 17h40 Use of a biologTM system for monitoring and overcoming phage and antibiotic resistance during the treatment of MDR infections in humans**
Biswajit Biswas, Biological Defense Research Directorate, USA
- 17h50 A phage-display-generated peptide that transports biologics and phages through the mucosa**
Alf Hamman, Deutsches Rheuma-Forschungszentrum, Germany

Phage Therapy Speed Collaboration

This session is dedicated to all attendees, academics, start-ups and industrials who are looking for collaboration: each attendee can present his project during one or two minutes to other attendees.

If you would like to take part to the Phage Therapy Speed Collaboration, please contact us.

18h30 End the first day

20h00 Targeting Phage & Antibiotic Resistance 2018 Dinner

You can register online before May 2.

Day 2 – May 18, 2018

8h55 Opening of the second day

Session 2: Innovations against antibiotic resistance

9h00 Antimicrobial discovery from extreme halophiles

Brendan Gilmore, Queen's University Belfast, United Kingdom

9h25 Microarray patches for prevention and treatment of infectious diseases and their potential for reducing antibiotic resistance

Ryan Donnelly, Queen's University Belfast, United Kingdom

9h50 Reincarnation of a staphylococcal pathogenicity island as an antibacterial drone

Richard Novick, New York University, USA

10h15 Coffee Break, Poster & Networking Session

11h15 Microbiota & medicine revolution: the strategic role of phage

Marvin Edeas, Institut Cochin, University Paris Descartes, France

Short Oral Presentations (7 minutes for presentation + 3 minutes for questions)

11h40 Gut microbiome and virome after human fecal transfer

Karin Moelling, University of Zurich, Switzerland

11h50 Genome editing of virulent staphylococcal phages using CRISPR-CAS10

Asma Hatoum-Aslan, University of Alabama, USA

12h00 CRISPR-CAS9 promotes the re-sensitization of enterobacteriaceae clinical strains to β -Lactams

Thaysa Tagliaferri, RWTH Aachen University Hospital, Germany

12h10 Therapeutic application of phage OMKO1 in two cases of antimicrobial resistant pseudomonas aeruginosa

Benjamin Chan, Yale University, USA

12h20 Mycobacterial tuberculosis NadD, a promise for targeting latent and drug-resistant tuberculosis

Leonardo Sorci, Polytechnic University of Marche, Italy

12h30 Inhibition of Shikimate kinase from M. Tuberculosis and H. Pylori for antibiotic discovery

Concepción González-Bello, Universidade de Santiago de Compostela, Spain

12h40 Using phage to select for evolution of reduced virulence in pathogenic bacteria

Paul E. Turner, Yale University, USA

12h50 Lunch Break, Poster & Networking Session

Session 3: Presentation of Innovations & Perspectives

14h00 Phage-based antimicrobials: novel approaches for managing drug-resistant bacteria

Alexander Sulakvelidze, Intralytix, USA

Short Oral Presentations (7 minutes for presentation + 3 minutes for questions)

14h25 Novel phage based therapeutics to address antibiotic resistance

Naomi Zak, Biomx, Israel

14h35 Engineering bacteriophage recognition baseplates in staphylococcal phages

Jeffrey Radding, EnBiotix Inc., USA

- 14h45 Bridging a gap in phage therapy: towards fast and efficient production of highly purified phages for various applications**
Frenk Smrekar, Jafra, Slovenia
- 14h55 Addressing challenges for the clinical development of phage products**
Sandra Morales, AmpliPhi Biosciences, Australia
- 15h05 Detection of bacteria in air by using an air sampler carrying phages and gold nanoparticles by raman probe**
Erhan Piskin, Institute of Graduate School of Science and Engineering, Turkey
- 15h15 Salmonella rissen ϕ 1: a molecular switch**
Marina Papaiani, University of Naples Federico II, Italy
- 15h25 A phase 1 clinical trial to evaluate the safety, tolerability and preliminary efficacy of bacteriophages in patients with staphylococcus aureus chronic rhinosinusitis**
Sarah Vreudge, University of Adelaide, Australia
- 15h35 Coffee Break
- 15h50 Isolation of environmental campylobacter phages and their application for meat decontamination and phage-therapy in poultry**
Giuseppe Aprea, Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise "G. Caporale", Italy
- 16h00 Isolation and characterization of bacteriophages active against avian pathogenic e. Coli**
Džiuginta Jakočiūnė, University of Copenhagen, Denmark
- 16h10 Effect of dilution rate on continuous production of phages using two chemostats in series**
Francesco Mancuso, Loughborough University, United Kingdom
- 16h20 Metagenome analysis of a russian and georgian cocktails and a placebo-controlled safety trial of a single phage versus phage cocktail in healthy staphylococcus aureus carriers**
Shawna McCallin, University of Lausanne, Switzerland
- 16h30 Listeria monocytogenes' infective prophage that promotes virulence is controlled by an ancient cryptic prophage, an evidence for the co-optation of phage remnant regulatory genes**
Anat Herskovits, Tel Aviv University, Israel
- 16h40 Potential use of phages as sanitizing agents to reduce hospital pathogens on hard surfaces**
Elisabetta Caselli, University of Ferrara, Italy
- 16h50 Round Table Discussion & Concluding Remarks**
Targeting Phage & Antibiotic Resistance 2018 Awards
- 17h30 End of Targeting Phage & Antibiotic Resistance 2018**