

Scientific program

Antimicrobial Resistance in Biofilms and on Biomaterials

10th of June 10:00-17:30 (Central European Summer Time, CEST), Webex

10:30-12:00 - Chair: Frank Schreiber (BAM), Jules Valentin (Empa)

Biomaterials for biofilm and AMR prevention

Keynote: Henk Busscher, UMC Groningen (20 + 10 min)

Novel antimicrobials: superior therapeutic efficacy or prevention of resistance?

Roger Bayston, University of Nottingham (10 + 5min)

Reduction of AMR from use of antimicrobial-impregnated devices

Clara M. Guarch Pérez, Amsterdam UMC, (10 + 5min)

Development of antimicrobial polycaprolactone wound dressings loaded with niclosamide by melt electrowriting

Ton Loontjens, University of Groningen, (10 + 5min)

Crosslinkable Brush-shape Immobilized Antimicrobial Coatings Applicable on various Substrates

Diana Alves, University of Minho, (10 + 5min)

A dual-drug release antimicrobial coating to prevent multi-species biofilm formation on endotracheal tubes

12:00-12:30 - possibility for networking

12:30-13:00 – lunch break

13:00-14:30 - Chair: Jeremy Webb (University of Southampton)

Resistance mechanisms to antibiotics and biocides in biofilms

Keynote: María Dolores Macià, Hospital Universitario Son Espases Palma de Mallorca (20 + 10 min)

Deciphering the complex mechanisms of antibiotic resistance in biofilms

Jules Valentin, Empa, BEAT-AMR consortium (10 + 5 min)

Mechanistic insights in the antibiotic tolerance of *Pseudomonas aeruginosa* biofilms

Frank Schreiber, BAM, BEAT-AMR consortium (10 + 5 min)

Physiological and evolutionary consequences of exposing *Pseudomonas aeruginosa* to biocide-antibiotic combinations

Annette Moter, Charité Berlin (10 + 5 min)

How dead is dead in Biofilm-associated infections? Diagnostics, complications and consequences

Ramón García Maset, University of Warwick (10 + 5 min)

Cationic antimicrobial polymers: against biofilm infection in an *in vitro* collagen model and in an *ex vivo* porcine skin model

14:30-15:00 – possibility for networking and coffee break

15:00-16:30 - Chair: Qun Ren (Empa)

Antimicrobial resistance evolution in biofilms

Keynote: Vaughn Cooper, University of Pittsburgh (20 + 10 min)

Biofilm-dependent evolutionary pathways to antimicrobial resistance in *A. baumannii* and *P. aeruginosa*

Ellen Young, University of Edinburgh (10 + 5 min)

Modelling loss and gain of genetic diversity in growing biofilms

Maria Olívia Pereira, University of Minho (10 + 5 min)

Investigating the development of antimicrobial resistance of bacteria remaining adhered to antimicrobial surfaces

Judith Kikhney, Charité Berlin (10 + 5 min)

A microfluidic flow system for understanding and predicting antibiotic resistance evolution in biofilms vs. planktonic culture

Ray Allan & Christian Ahrens, De Montfort University & Agroscope, BEAT-AMR consortium (10 + 5 min)

An integrated model system to gain mechanistic insights into biofilm-associated antimicrobial resistance in *Pseudomonas aeruginosa* MPA01

16:30-17:00 – panel discussion; Chair: Henny van der Mei (UMC Groningen)

17:00-17:30 – possibility for networking and end of the workshop