



HT micro
HOT TOPICS IN MICROBIOLOGY

Kmv.sk
Katedra mikrobiológie a virológie
Univerzita Komenského v Bratislave, Prírodovedcká fakulta

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Workshop for Young Scientists, Štrbské pleso, High Tatras, Slovakia, 12th – 15th March 2025

Hot Topics in Microbiology 2025

Workshop for Young Scientists

12th – 15th of March 2025, Štrbské Pleso



FINAL PROGRAM

Organization:



In cooperation with:

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Katedra mikrobiológie a virológie
Univerzita Komenského v Bratislave, Prírodovedcká fakulta

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FCHPT



Local Organizing Committee:

Petra Olejníková
Helena Bujdáková
Kristína van der Ploeg
Larysa Bugyna
Jarmila Czucz Varga
Katarína Bilská



Wednesday 12th of March

- 15:30 – 16:00** **Registration**
- 16:00 – 16:30** **Refreshment Coffee/Tea and Snack**
- 16:30 – 16:40** **Welcome and workshop opening** (Helena Bujdáková)
- 16:40 – 17:00** **Invited lecture**
- Adriána Liptáková**
Carriers of multidrug-resistant bacteria in the hospital environment
- 17:00 – 18:15** **Session 1** (Lucia Černáková)
- 17:00 – 17:15 **Nikola Madrová**
Monitoring the adverse effects of selected pharmaceutical substances in the context of viral infections
- 17:15 – 17:30 **Leona Hofmeisterová**
Effect of clove and thyme essential oils on growth inhibition and biofilm formation of *Arcobacter* spp.
- 17:30 – 17:45 **Kateřina Holubová**
Identification and characterization of novel type of bacteriocin in veterinary strains of *Escherichia coli*
- 17:45 – 18:00 **Saša Zahornacká**
Adhesion and invasion capacity of probiotic *Escherichia coli* strains *in vitro*
- 18:00 – 18:15 **Ivana Stará**
Antimicrobial properties and evaluation of cotton materials with antimicrobial treatment
- 18:15 – 20:00** **Dinner at the hotel**
- 20.00 – 21:00** **Tomáš Pagáč**
Advances in anti-doping science – from molecular detection to gene doping



Thursday 13th of March

- 09:30 – 12:00** “Brainstorming“/Social activities
- 12:00 – 14:00** Lunch break (optional)
- 14:00 – 15:30** “Journal Club“ (Petra Olejníková, Tomáš Pagáč)
- 15:30 – 16:00** Coffee/Tea Break
- 16:00 – 16:20** Invited lecture
- Lucia Černáková**
Recent advances in the treatment of oral *Candida* infections
- 16:20 – 18:05** Session 2 (Jaroslava Dekkerová)
- 16:20 – 16:35 **Katarína Bilská**
Photoactive Nanocomposites: A Promising Approach to Combat MRSA Biofilms
- 16:35 – 16:50 **Larysa Bugyna**
Photodynamic inactivation of *Staphylococcus aureus* by hybrid nanocomposite functionalized with erythrosine B: anti-biofilm effects
- 16:50 – 17:05 **Jarmila Czucz Varga**
Evaluation of the effect of photodynamic inactivation in the combination with phloxine B against dual biofilms of *Candida albicans-Staphylococcus aureus*
- 17:05 – 17:20 **Samuel Kendra**
Practical application of propidium monoazide-qPCR for determination of viable cells of inter-species biofilm of *Candida albicans-Staphylococcus aureus*
- 17:20 – 17:35 **Jaroslava Dekkerová**
Analysis and photodynamic inactivation of *Klebsiella pneumoniae* biofilm *in vitro* and *in vivo* using *G. mellonella* model.
- 17:35 – 17:50 **Juraj Bujdák**
Layered silicate/polymer nanocomposites as carriers of antimicrobial substances
- 17:50 – 18:05 **Helena Bujdáková**
Towards Nanotechnologies Fighting Resistant Microbial Biofilms



18:05 – 20:00	Dinner at the hotel
20:00 – 21:00	Discussion about ongoing projects (Helena Bujdaková)
	<i>Friday 14th of March</i>
09:30 – 12:00	“Round table about writing of projects“ (Lucia Černáková, Jaroslava Dekkerová)
12:00 – 14:00	Lunch break (optional)
14:00 – 15:30	Planned activities on national projects: APVV Recovery and Resilience Plan (Helena Bujdaková, Juraj Bujdák, Kristína van der Ploeg)
15:30 - 16:00	Coffee/Tea Break
16:00 – 16:20	Invited lecture
	Petra Olejníková Sequential activation of adaptive mechanisms in filamentous fungi under azole-induced stress
16:20 – 18:20	Session 3 (Petra Olejníková)
16:20 – 16:35	Tomáš Pagáč Antimicrobial evaluation of newly synthesized silver-glycine complexes
16:35 – 16:50	Júlia Koreneková The impact of water activity on the growth and enterotoxin production in food isolates of <i>Staphylococcus aureus</i>
16:50 – 17:05	Ivana Segéňová Determination of the synergistic effect of azoles and stress-inducing agents on <i>A. fumigatus</i> strains
17:05 – 17:20	Simona Hisirová Antibiotic resistance and virulence factors of multidrug-resistant staphylococci isolated from dog skin
17:20 – 17:35	Stanislav Lauko The impact of dysbiotic microbiota obtained from patient with ulcerative colitis on the pathogenesis of uc by utilizing animal model
17:35 – 17:50	Daniela Spišáková



	Evaluation of bacterial composition and viability of faecal microbiota transplant: comparative analysis of its frozen and lyophilized forms
17:50 – 18:05	Natália Zábolyová Methicillin-resistant staphylococci in animals – characteristics and susceptibility to bacteriocins
18:05 – 18:20	Kristína van der Ploeg „Effective engagement in Horizon Europe projects“
18:20 – 18:35	Official workshop closing (Helena Bujdáková)
18:35	Dinner at the hotel