

## AGENDA

### MONDAY (November 07, 2022)

- 3:30 – 5:45pm *Arrival of participants, Registration and helpdesk open (Entrance hall, hotel Mědínek)*
- 6:00 – 6:30pm **Kubelková Klára, Macela Aleš** – Opening (Auditorium, hotel Mědínek)
- 6:30 – 7:00pm Keynote lecture
- Juraj Ivanyi** – Potentials of antibody ligands with T cell receptor specificity for the immunotherapy of intracellular infections (Centre for Host-Microbiome Interactions, Guy's Campus of Kings College London, UK)
- 7:00 – 12:00pm *Welcome party (Entrance hall/Auditorium, hotel Mědínek)*

### TUESDAY (November 08, 2022)

8:00am – 10:15am

Session I.

Chairperson: Sjostedt Anders, Šantić Marina

- 8:00 – 8:30am **Sjostedt Anders** – The *Francisella tularensis* ClpB – a unique chaperone regulating T6SS (Umeå University, SE)
- 8:30 – 9:00am **Špidlová Petra** – Arginine 58 is indispensable for proper function of the *Francisella tularensis* HU protein, and its substitution alters virulence and mediates immunity against wild-type strain (FoMHS, University of Defence, CZ)
- 9:00 – 9:15am **Lásková Pavlína** – Validation of *Francisella tularensis* peptides as immunogenic T-cell epitopes (FoMHS, University of Defence, CZ)
- 9:15 – 9:45am **Šantić Marina** – *Francisella* in the environment (University of Rijeka, HR)



- 9:45 – 10:00am **Vozandychová Věra** – Changes of host deubiquitination enzymes during *Francisella tularensis* infection of human macrophages (FoMHS, University of Defence, CZ)
- 10:00 – 10:15am **Mihelčić Mirna** – IL-1 $\beta$  neutralization increased susceptibility to tularemia in autophagy deficient animals during *Francisella tularensis* LVS infection (University of Rijeka, HR)
- 10:15 – 10:45am *Coffee break – Conference foyer*

**10:45am – 12:00pm**

**Session II.**

**Chairperson: Mou Sherry, Kamanová Jana**

- 10:45 – 11:15am **Kamanová Jana** – *Bordetella* Type II Secretion Injectosome and Effector Proteins (Institute of Microbiology of the ASCR, CZ)
- 11:15 – 11:30am **Bumba Ladislav** – Pertussis toxin suppresses dendritic cell-mediated delivery of *B. pertussis* into lung-draining lymph nodes (Institute of Microbiology of the ASCR, CZ)
- 11:30 – 11:45pm **Čížková Monika** – Role of BscX and BscY proteins in the *Bordetella* type 3 secretion system (Institute of Microbiology of the ASCR, CZ)
- 11:45 – 12:00pm **Vysloužil Jan** – News in optical and electron microscopy (Pragolab s.r.o., CZ)
- 12:00 – 1:15pm *Lunch – hotel Mědínek*

**1:15pm – 5:05pm**

**Session III.**

**Chairperson: Mou Sherry, Kamanová Jana**

- 1:15 – 1:45pm **Mou Sherry** – The *Burkholderia pseudomallei* hmqA-G Locus Mediates Competitive Fitness against Environmental Gram-Positive Bacteria (USAMRIID, Maryland, USA)
- 1:45 – 2:15pm **Malcová Ivana** – Lipid Binding by the N-terminal Motif Mediates Plasma Membrane Localization of *Bordetella* Effector Protein BteA (Institute of Microbiology of the ASCR, CZ)



- 2:15 – 2:45pm **Romero Allsop Tania, Zmuda Martin, Sedláčková Eliška** – Unraveling the Mechanisms of Action of *Bordetella* Effector Protein BteA (Institute of Microbiology of the ASCR, CZ)
- 2:45 – 3:00pm **Grobarčíková Michaela** – Identification of residues involved in posttranslational modification of RTX toxins of Gram-negative pathogens (Institute of Microbiology of the ASCR, CZ)
- 3:00 – 3:30pm *Coffee break – Conference foyer*
- 3:30 – 3:45pm **Vávrová Pavlína** – Implementation of advanced methodical strategies to form dual-species biofilm in the research of anti-biofilm acting compounds (Charles University, Faculty of Pharmacy, CZ)
- 3:45 – 4:15pm **Černý Ondřej** – CD97 stabilizes the immunological synapse between dendritic cells and T cells and is targeted for degradation by the *Salmonella* effector SteD (Institute of Microbiology of the ASCR, CZ)
- 4:15 – 4:30pm **Kambová Milada** – Heterogeneous expression of *Salmonella Typhimurium* SPI-2 T3SS effectors (Institute of Microbiology of the ASCR, CZ)
- 4:30 – 4:35pm **Dreus Alona** – *Salmonella* SPI-2 TTSS effectors: Where and When (Institute of Microbiology of the ASCR, CZ)
- 4:35 – 4:50pm **Kukla Stanislav** – Proximity Ligation Assay - a powerful tool for study of endogenous protein function (Merck Life Science spol. s r.o., CZ)
- 4:50 – 5:05pm **Krist Pavel** – ZEISS - The Most Advanced Light, X-ray and Electron Microscopy (Carl Zeiss spol. s r.o, CZ)

### WEDNESDAY (November 09, 2022)

8:00 – 9:45am

Session IV.

Chairperson: Matiašovic Ján, Kolářová Iva

8:00 – 8.15am

**Matiašovic Ján** – Development of vaccine against *Streptococcus suis* infection in pig (Veterinary Research Institute, CZ)



- 8:15 – 8.30am **Zouharová Monika** – Diversity of *Streptococcus suis* strain isolated from sick pigs from farms in the Czech Republic (Veterinary Research Institute, CZ)
- 8:30 – 8.45am **Matiášková Katarína** – Resistance of *Streptococcus suis* Isolates from the Czech Republic during 2018-2022 (Veterinary Research Institute, CZ)
- 8:45 – 9.00am **Králová Natálie** – The capsular polysaccharide synthesis locus analysis of *Streptococcus suis* isolates (Veterinary Research Institute, CZ)
- 9:00 – 9:30am **Kolářová Iva** – Host-*Leishmania* interactions – an essential role of the vector (Department of Parasitology, Faculty of Science, Charles University)
- 9:30 – 9:45am **Jelínková Kristýna** – Dual role of anti-vector saliva immunity on the outcome of *Leishmania* infection (Veterinary Research Institute, CZ)
- 9:45 – 10:15am *Coffee break – Conference foyer*

**10:15 – 12:00am**

**Session V.**

**Chairperson: Rychlík Ivan, Volf Jiří**

- 10:15 – 10.45am **Rychlík Ivan** – How to select novel types of probiotics? (Veterinary Research Institute, CZ)
- 10:45 – 11.00am **Crhánová Magdalena** – Environmental survival of gut microbiota members and their host species adaptation (Veterinary Research Institute, CZ)
- 11:00 – 11.15am **Vlasatíková Lenka** – The untargeted metabolomic profiling using LC-MS can distinguish the impacts of different probiotic mixtures on the cecal metabolome of laying chickens in small-scale experiments (Veterinary Research Institute, CZ)
- 11:15 – 11:30am **Zeman Michal** – Metabolism of selected members of chicken gut microbiota in vivo (Veterinary Research Institute, CZ)
- 11:30 – 11:45am **Schwarzerová Jana** – Comprehensive analysis of mobile genetic elements in chicken gut microbiome using a novel in-silico approach (Faculty of Electrical Engineering and Communication, Brno Univ, CZ)



- 11:45 – 12:00am **Čejková Darina**- Horizontal gene transfer network in chicken gut microbiome (Brno University of Technology, CZ)
- 12:00 – 1:00pm *Lunch – hotel Mědínek*
- 1:00 – 6:00pm *Social program (Tour of the City of Silver)*
- 7:00 – 12:00pm *Conference Reception (restaurant Dačický)*

## THURSDAY (November 10, 2022)

8:00 – 10:00am

Session VI.

Chairperson: Rösl Frank, Boštík Vanda

- 8:00 – 8:30am **Rösl Frank** – Cutaneous papillomavirus induced skin carcinogenesis: molecular and immunological aspects (German Cancer Research Center, Heidelberg, GE)
- 8:30 – 8:45am **Machát Radek** – Innate immune response of common carp (Cyprinus carpio L.) to Koi herpesvirus infection (Veterinary Research Institute, CZ)
- 8:45 – 9.00am **Pokorná Karolína** – Investigating the Role of UR11 in Hepatitis B Virus Replication (Institute of Organic Chemistry and Biochemistry of the ASCR, CZ)
- 9:00 – 9.30am **Boštík Vanda** – Lessons from the COVID-19 Pandemic (FoMHS, University of Defence, CZ)
- 9:30 – 9.45am **Hrdý Jiří** – Impact of vaccination against COVID-19 on immune responses in patients suffering from autoimmune neurological disorders treated with rituximab or ocrelizumab (Charles University and General University Hospital in Prague, CZ)
- 9:45 – 10.00am **Vašák Jiří** – The HoloMonitor: holografy in microscopy (KRD s.r.o., CZ)
- 10:00 – 10:45am *Coffee break – Conference foyer*



10:45 – 12:00am

Session VII.

Chairperson: Schabussova Irma, Kozáková Hana

- 10:45 – 11:15am **Irma Schabussova** – Extracellular vesicles: The missing link between microbiota and the host immunity? (Medical University of Vienna, AT)
- 11:15 – 11:30am **Bavlovič Jan** – Outer membrane vesicles and nanotubes secretion in *Francisella tularensis* strain with disrupted O-antigen (FoMHS, University of Defence, CZ)
- 11:30 – 11:45am **Bulvas Ondřej** – Mechanism of mycobacterial inosine-5'-monophosphate dehydrogenase allosteric regulation (Institute of Organic Chemistry and Biochemistry of the ASCR, CZ)
- 11:45 – 12:00am **Dedola Matteo** – Multiprotein organization of the purine metabolism enzymes in mycobacteria (Institute of Organic Chemistry and Biochemistry of the ASCR, CZ)
- 12:00 – 12:15am **Hrdý Jiří** – Effect of early postnatal supplementation of newborns by probiotic strain *E. coli* O83:K24:H31 on allergy incidence, dendritic cells and microbiota (Charles University and General University Hospital in Prague, CZ)
- 12:15 – 2:00pm *Closing the conference, lunch and departure of participants*