



OFFICIAL PROGRAM OF SLOVAK AND CZECH PARASITOLOGICAL DAYS

MONDAY May 13, 2024

From 15.00 Arrival and registration of participants

18.30-21.00 Dinner and get-together party

TUESDAY May 14, 2024

8.00-8.45 Breakfast

8.50-9.00 Opening ceremony of the XV. Slovak and Czech Parasitological Days

Plenary lecture I

9.00-9.30 OP01 **Carolina R.F. Chagas**, K. Valavičiūtė-Pocienė, M. Kazak, M. Duc, D. Bukauskaitė, C. Hernández-Lara, R. Bernotienė: *Haemoproteus* parasites and *Culicoides* biting midges, complex interactions still to be unravelled.

Session I. - GENERAL + PROTOZOOLOGY (Chairman: Stanko M., Paulauskas A.)

9.30-9.45 O01 **Tomáš Scholz**: Gaps in parasitological research in the molecular & omics era.

9.45-10.00 O02 **Volodimir Sarabeev**, S. Shvydka, O. Lisitsyna, M. Oros, M. Miterpáková, M. Ždímalová: The sample size matters: evaluating minimum and optimum values in prevalence studies.

10.00-10.15 O03 **Andrea Bardůnek Valigurová**, J. Schrével, I. Florent, T.G. Simdyanov, G.G. Paskerova: Neglected taxa shed light on the diversity and evolution of parasitism strategies in Apicomplexa.

10.15-10.45 **Coffee break**

Session II. – PROTOZOOLOGY AND BACTERIOLOGY (Chairman: Šujanová A., Jirků K.)

10.45-11.00 O04 **Eva Chrappová**, A. Šujanová: Blood parasites of the order Hemosporida and their possible impact to physiology stress of avian host. *(student)*

11.00-11.15 O05 **Iva Hammerbauerová**, E. Richtrová, K. Kybicová, P. Pajer, W. Ballhorn, K. Volfová, V. Kempf, J. Votýpka: *Bartonella* in red deer and deer keds. *(student)*

11.15-11.30 O06 **Šimon Zeman**, J. Skuhrovec, J. Votýpka: Wanted: Alive – Using citizen science to explore the diversity of *Monoxenous trypanosomatids* in invasive true bugs (Hemiptera: Heteroptera). *(student)*

11.30-11.45 O07 **Kateřina Jirků**, Z. Lhotská, K. Brožová, A. Kašparová, O. Kadlecová, M. Šloufová, M. Oborník, M. Jirků: Gut protists in gut-healthy humans and animals: Challenging existing paradigm.

11.45-12.00 O08 **Alžbeta Šujanová**, C. Keckeisen, T. Himmel, J. Matt, N. Nedorost, C. R. F. Chagas, H. Weissenböck, J. Harl: *Isospora* and *Lankesterella parasites* (Eimeriidae, Apicomplexa) of passerine birds in Europe.

12.00-13.30 Lunch

Session III. - FISH PARASITES (Chairman: Kutsokon Y., Rahmouni Ch.)

13.30-13.45 O09 **Farshad Nejat**, M. Benovics, C. Kaya, S. Aksu, A. Abdoli, A.S. Tarkan, A. Šimková: Diversity, phylogeny, and phylogeography of *Dactylogyrus* (Monogenea) in the Middle East: what to expect from? *(student)*

13.45-14.00 O010 **Chahrazed Rahmouni**, M. Seifertová, A. Šimková: Unveiling the diversity and evolutionary patterns of *Gyrodactylus* (Gyrodactylidae) communities in Nearctic cypriniform fish hosts: insights from species richness, morphology, and molecular phylogeny.

14.00-14.15 O011 **Andrea Šimková**, E. Řehulková, M. Seifertová: Host-specific parasites revealing the biogeographical contacts of freshwater fish.

14.15-14.30 O012 **Yuliia Kutsokon**, V. Yuryshynets, Y. Kvach: Parasites as biological tags of self-spreading populations of neolimnetic fish species.

14.30-14.45 O013 **Chahrazed Rahmouni**, M. Seifertová, M. Bean, A. Šimková: New discovery and phylogenetic position of *Salsuginus* parasite (Monogenea: Dactylogyridae) in Western mosquitofish (*Gambusia affinis*).

14.45-15.00 O014 **Andrea Šimková**, M. M. H. Fuad, M. Ondračková, T. Tichopád, K. Cívánová Křížová, M. Seifertová, K. Voříšková, M. Demko, L. Vetešník: *Diplostomum pseudospathaceum* (Trematoda) inducing differential immune gene expression in asexual and sexual gibel carp (*Carassius gibelio*).

15.00-15.30 **Coffee break**

Session IV. - EPIDEMIOLOGY, DIAGNOSTIC AND METHODS IN PARASITOLOGY (Chairman: Benovics M., Kuzmina T.)

15.30-15.45 O015 **Lucia Anettová**, A. Šipková, J. Kačmaříková, V. Velič, L. Cavallo, E. I. Rodriguez, I. Dyková, E. R. Morgan, D. Modrý: Comparative analysis of paratenic hosts' infectivity by *Angiostrongylus cantonensis*: Exploring varied host responses. *(student)*

15.45-16.00 O016 **Jana Kačmaříková**, R. Coufal, A. Šipková, D. Pandian, P. Foronda, D. Modrý, B. Červená: Fast and curious: the role of agile snails in *Angiostrongylus cantonensis* life cycle.

16.00-16.15 O017 **Zuzana Hurníková**, R. Mariščáková, M. Miterpáková: Newly established parasites and new challenges for veterinary practice in Slovakia.

16.15-16.30 O018 **Daniela Antolová**, M. Miterpáková, F. Ondriska, V. Boldiš: Human dirofilaris in Slovakia - or "Hey, Doctor, something is moving under my skin!"

Poster session I. (5 min. presentation + 5 min. discussion - student posters) + Wine tasting (Chairman: Roller L.)

P01-P21

16.30-18.00

P01 **A. Rashydov**, O. I. Lisitsyna, O. B. Greben, M. Oros, V. L. Sarabeev: Taxonomic evaluation of the digeneans (Trematoda) of *Gammarus balcanicus* and *G. fossarum* in eastern Slovakia. *(student)*

- P02 **M. Kaduková**, A. Schreiberová, G. Štrkolcová: Is uncinariosis zoonotic diseases? *(student)*
- P03 **N. Moradpoor**, D. Okena, V. František, D. Cizkova, V. Novotny, J. Goüy de: Preliminary study on the helminths of rodents of the Finisterre Range, New Guinea. *(student)*
- P04 **V. Vanerková**, A. Purkart, M. Benovics: Intestinal parasites of the European ground squirrel (*Spermophilus citellus*) from selected parts of Slovakia. *(student)*
- P05 **N. Janošková**, A. Schreiberová, Ľ. Korytár, A. Kočíšová: Molecular identification of bloodmeals and species composition in *Culicoides* biting midges in the Bird ringing station Drienovec. *(student)*
- P06 **V. Blažeková**, M. Stanko, D. Zubriková, L. Vargová, M. Bona, B. Víchová: Preliminary results of molecular screening of the presence of *Ixodiphagus* spp. in ticks (Ixodida) across urban and mountain areas. *(student)*
- P07 **M. Renčo**, A. Čerevková, E. Gömöryová: Close-to-Nature forest management alters soil nematode communities and microbial activity in pine plantations on aeolian sands.
- P08 **E. Špitalská**, M. Ševčík, Ye.-Yu. Peresh, P. Benda: *Bartonella* in bat flies from the Egyptian fruit bat in the Middle East.
- P09 **T.A. Kuzmina**, A. Königová, L. Burčáková, M. Babjak, Y. Syrota: Strongylids of domestic horses in Slovakia: species diversity and strongylid community structure.
- P10 A. Königová, L. Burčáková, **T.A. Kuzmina**, C.J. Austin, J.B. Matthews, K.L. Lightbody, N.A. Peczak, Y. Syrota, M. Várady: Anoplocephalosis in horses: immunological versus coprological methods and risk factor analysis.
- P11 **P. Komorová**, M. Miterpáková, Z. Hurníková: Small mammals as a reservoir of zoonotic parasites *Trichinella* spp. and *Capillaria hepatica*.
- P12 **M. Orosová**, M. Marková, D. Barčák, M. Oros: B chromosomes occurrence in *Acanthocephalus lucii* and *A. anguillae*: Effect of environmental pollution?
- P13 **A. Schreiberová**, M. Kaduková, M. Kožár, B. Šišková, G. Štrkolcová: Molecular and phylogenetic analysis of *Crenosoma vulpis* in dog.
- P14 **D. Barčák**, C. Kibet, M. Orosová, M. Oros, R. Kuchta, R. Keshura Morinket: Engaging of environmental DNA approach in monitoring of avian schistosomes in Slovakia and the Czech Republic.
- P15 **M. Komáromyová**, D. Petrič, A. Königová, M. Babják, Z. Váradyová, M. Várady: Impact of pasture enriched with chicory on experimental haemonchosis.

P16 **R. Milcheva**, Z. Hurniková, K. Todorova, V. Dilcheva, S. Petkova, P. Janega, P. Babál: Down-regulation of neuronal form of Nitric oxide synthase in the Nurse cell of *Trichinella spiralis*.

P17 **M. Karasová**, Cs. Tóthová, S. Grelová, B. Vichová: Successful treatment of *Babesia gibsoni* infection in dogs.

P18 Z. Lhotská, V. Billy, **M. Jirků**, O. Kadlecová, L. Frgelecová, L. Wegener Parfrey, K. Jirků: Protist colonization alters the gut microbiome and accelerates recovery from gut inflammation in the animal model.

P19 R. Pecková, K. Doležal, **B. Sak**, D. Květoňová, M. Kváč, I. Petřík, W. Nucarhyo, I. Foitová: Effect of selected Indonesian plants on *Giardia intestinalis* in an experimental *in vitro* model.

P20 **M. Kváč**, A. Konvalinová, N. Holubová, Z. Hůzová, K. Beranová, M. Kicia, J. McEvoy, B. Sak: *Cryptosporidium mortiferum*: first case in human and synanthropic rodents as source of infection in the Czech Republic.

P21 **D. Antolová**, M. Stanko, J. Jarošová, V. Dandárová: Rodents as reservoirs for *Toxoplasma gondii* in different ecosystems in Slovakia – seroprevalence study.

18.00-19.00 Round table – Council of the Slovak Society for Parasitology

19.00-20.00 Dinner

WEDNESDAY May 15, 2024

8.00-8.45 Breakfast

7.55-8.55 Breakfast with professors: Lorenza Beati M.D. Ph.D., Vitaliy O. Kharchenko DrSci., Dr. Hab., Franz Rubel, Prof., Dr., Olaf Kahl, Dr., Mária Kazimírová, RNDr., CSc.

Plenary lecture II.

9.00-9.30 OP02 M. Pękacz, K. Slivinska, K. Basałaj, A. Kalinowska, A. Wesołowska, A. Vyniarska, O. Kysterna, A. Klietsov, J. Gawor, **V. Kharchenko**, M. Miterpáková, A. Zawistowska-Deniziak: Unveiling biohazard threats: Molecular surveillance of *D. repens*, *D. immitis*, and *A. reconditum* in stray animals amidst military war in Ukraine.

Session V. - MOLECULAR BIOLOGY AND HOST-PARASITE INTERACTION

(Chairman: Hurniková Z., Scholz T.)

9.30-9.45 O019 **Anna Marková**, M. Orosová, P. Mora Ruiz: Initial satellitome analysis of two *Acanthocephalus* species: searching for new potential cytogenetic markers. *(student)*

9.45-10.00 O020 **Anna Šípková**, L. Anettová, K. Javorská, D. Pandian, P. Cibulka, J. Kačmaříková, D. Modrý: Role of hedgehogs in the life cycle of *Angiostrongylus cantonensis*. *(student)*

10.00-10.15 O021 **Miroslava Petrová**, E. Dvorožňáková, S. O. Kim: Modulation of M1/M2 macrophages by excretory-secretory products of *T. spiralis* larvae.

10.15-10.30 O022 **Algimantas Paulauskas**, S. Misailové-Riboké, I. Lipatova, I. Ražanské, V. Mažeika, A. Kibiša: Molecular characterization of *Dictyocaulus* spp. lungworms in wild ungulates in Lithuania.

10.30 -11.00 Coffee break

Session VI. - TAXONOMY AND BIODIVERSITY (Chairman Korytár Ľ., Oros M.)

11.00-11.15 Sponsorship presentation: Jana Lev, I. Šišková: Revolution in plasmid isolation.

11.15-11.30 O023 **Ivanna Dmytriieva**: Helminth diversity in *Pelophylax* spp. and *Rana temporaria* in Lithuania. (*student*)

11.30-11.45 O024 **Michal Benovics**, D. Schönigerová, P. Papežík, P. Mikulíček: Diversity of trematode parasites in European water frogs of genus *Pelophylax*.

11.45-12.00 O025 **Mikuláš Oros**, T. Scholz, R. Kuchta, D. Barčák: The little-known *Metagonimus romanicus* with zoonotic potential.

12.00-12.15 O026 **Ľuboš Korytár**, A. Ondrejková, J. Sitko, I. Literák, P. Petroušková: *Collyriclum faba* infestation in the Great reed warbler.

12.15-13.15 Lunch

13.30-18.45 Trip to Eko Park Piešťany

19.00-20.00 Dinner

THURSDAY May 16, 2024

8.00-8.50 Breakfast

Plenary lecture III.

9.00-9.30 OP03 **Lorenza Beati**: Ticks population genetics: tools and future venues.

Session VII. - ECOLOGY AND DISTRIBUTION OF TICKS (Chairman Derdáková M., Kahl O.)

9.30-9.45 O27 **Kati Ryyänänen**, M. Šišák: Proven performance in diagnostics of Lyme Borreliosis and Neuroborreliosis (sponsorship presentation).

9.45-10.00 O28 **Olaf Kahl**, W. Knülle: Active water vapour uptake in unfed and engorged *Dermacentor marginatus* (Acari, Ixodidae).

10.00-10.15 O29 **Franz Rubel**: Visualization of the distribution of Central European tick species on the virtual globe.

10.15-10.45 **Coffee break**

Session VIII. - ALL ABOUT TICKS (Chairman Rusňáková Tarageľová V., Didyk Yu.)

10.45-11.00 O30 **Justina Snegiriovaitė**, J. Radzijeuskaja, I. Lipatova, M. Razgūnaitė, A. Paulauskas: The distribution of *Ixodid* ticks and their infection with *Borrelia* spp. in urban and peri-urban parks in Lithuania. (*student*)

11.00-11.15 O31 **Mária Kazimírová**, B. Mangová, M. Chvostáč, Yu. M. Didyk, S. Purgatová, D. Selyemová, V. Rusňáková Tarageľová, L. Schnittger: The role of big game in the epidemiology of tick-borne diseases in Slovakia.

11.15-11.30 O32 V. Rusňáková Tarageľová, D. Selyemová, B. Mangová, M. Chvostáč, Y.M. Didyk, M. Kazimírová, S. Purgatová, Z. Balogh, E. Gatial, **Markéta Derdáková**: Citizen science in tick research in Slovakia (INFOTICK).

11.30-11.45 O33 **Michal Stanko**, L. Mošanský, I. Heglasová, V. Blažeková, B. Víchová: Impact of microhabitats on species richness and tick densities in karst habitats of Slovakia.

11.45-12.00 O34 **Juraj Koči**, S. Bista, P. Chirania, X. Yang, Ch. Kitsou, V. S. Rana, O. Buyuktanir Yas, D. E. Sonenshine, U. Pal: Antibodies against EGF-like domains in *Ixodes scapularis* BM86 orthologs impact tick feeding and survival of *Borrelia burgdorferi*.

12.00-12.15 O35 H. Frantová, M. Garcia-Guizzo, K. Číhalová, S. Lu, M. Tonk, T. Kozelková, J. Perner, J.M. Ribeiro, L. Žůrek, **P. Kopáček**: Midgut immunity of *Ixodes ricinus* – What is behind the unstable midgut microbiome of the tick?

12.15-13.45 Lunch

Session IX. - MOLECULAR BIOLOGY AND PROTEOMICS OF TICKS (Chairman: Daubnerová I., Sojka D.)

13.45-14.00 O36 **Tereza Kozelková**, F. Dyčka, S. Lu, V. Urbanová, H. Frantová, D. Sojka, R. Šíma, M. Horn, J. Perner, P. Kopáček: Insight into the dynamics of the *Ixodes ricinus* nymphal and adult midgut proteome. (*student*)

14.00-14.15 O37 **Dušan Žitňan**, I. Daubnerová, J. Koči, M. Medla, V. Klockerová, L. Roller: Expression and function of neuropeptides and their receptors in ticks.

14.15-14.30 O38 **Ladislav Roller**, J. Koči, I. Daubnerová, V. Klocklerová, M. Medla, D. Žitňan: Mapping expression of neuropeptides revealed unique peptidergic cells in the ship tick *Ixodes ricinus*.

14.30-14.45 O39 **Veronika Urbanová**, L. Martins, E. Kalinová, S. Lu, J.M. Ribeiro, J. Perner, O. Hajdušek, T. Kozelková, F. Dyčka, P. Kopáček: Fat body of tick *Ixodes ricinus* and immune-related genes.

14.45-15.00 O40 D. Hartmann, J. Pytelková, K. Orsághová, M. Beňová, N. Chmúrčiaková, P. Talacko, T. Kozelková, Z. Franta, R. Šíma, J. Perner, P. Bartošová-Sojková, V. Urbanová, P. Kopáček, M. Mareš, M. Horn, **D. Sojka**: Hard tick Cathepsin L3 - the evolutionary adaptation to the extreme bloodfeeding lifestyle of females.

Poster session II. (5 min. presentation + 5 min. discussion - student posters) + Coffee break (Chairman: Žitňan D.)

P22-P43

15.00-16.30

- P22 **Z. Cellengová**, B. Hajdová, B. Peňko: Unravelling host selection and pathogen diversity through bloodmeal analysis. *(student)*
- P23 **S. Purgatová**, V. Rusňáková Taragel'ová, D. Selyemová, Y. Didyk, M. Kazimírová, B. Mangová, M. Ruivo, M. Wijnveld, Z. Krumpálová: Seasonal activity of *Ixodes ricinus* ticks and role of game animals in the circulation of tick-borne pathogens in southwestern Slovakia. *(student)*
- P24 G.A.G. Liberato, **I. Dmytriieva**, C.R.F. Chagas: Diversity of blood parasites in *Pelophylax* sp. from Lithuania. *(student)*
- P25 **M. Kaduková**, A. Schreiberová, P. Mudroň, C. Tóthová, P. Gomulec, G. Štrkolcová: Molecular diversity of *Cryptosporidium* species in the early stage of development in calves. *(student)*
- P26 **V. Zikmundová**, N. Holubová, B. Sak, M. Kváč: *Cryptosporidium* and cryptosporidiosis in reptiles. *(student)*
- P27 **J. Fenclová**, N. Holubová, B. Sak, R. Konečný, D. Květoňová, L. Hlášková, M. Kváč: *Cryptosporidium muris* in domestic cat differs from other murine isolates. *(student)*
- P28 **Y. Peresh**, E. Špitalská, M. Kováčová, Z. Špitalský, Ľ. Škultéty: Non-antibiotic elimination of rickettsial infections. *(student)*
- P29 **Yu.M. Didyk**, B. Mangová, O. Zhovnerchuk, M. Chvostáč, D. Selyemová, V. Rusňáková Taragel'ová: Urban hedgehogs and lizards as important hosts for hard ticks in Slovakia.
- P30 B. Fiecek, K. Slivinska, G. Karbowski, M. Świsłocka, A. Matras, A. Stasiak, J. Werszko, T. Chmielewski, **V. Kharchenko**: The first molecular detection of *Borrelia miyamotoi* in *Ixodidae* ticks in the Chernobyl Exclusion Zone, Ukraine.
- P31 **L. Minichová**, E. Špitalská, K. Palkovičová, P. Čaľová, P. E. Fournier, F. Csicsay, Ľ. Škultéty, Z. Sekeyová: Analysis of patient sera for the presence of specific antibodies against tick-borne antigens.
- P32 **V. Rusňáková Taragel'ová**, D. Selyemová, B. Mangová, M. Chvostáč, Yu.M. Didyk, M. Kazimírová, S. Purgatová, O. Zhovnerchuk, M. Derdáková: Monitoring of the seasonal activity of *Ixodes ricinus* and *Dermacentor reticulatus* ticks in Bratislava using tick gardens.
- P33 **D. Selyemová**, B. Mangová, Yu.M. Didyk, M. Kazimírová, M. Chvostáč, A. Kušniríková, M. Derdáková, V. Rusňáková Taragel'ová: Genetic variability of multi-hosts pathogen *Anaplasma phagocytophilum* in southern Slovakia.

- P34 **K. Loziaková Peňazziová**, L. Chitimia-Dobler, T. Csank, B. Peťko, A. Ondrejková, M. Halán, P. Schusterová, S. Pivka, L. Korytár: The first report of *Ixodes ventalloi* on migratory birds in Slovakia.
- P35 **S. Pivka**, K. Loziaková Peňazziová, P. Schusterová, I. Cingelová Maručšáková, B. Hajdová, B. Peťko, O. Kuchta, T. Csank: Partial phylogenetic analysis of Uukuniemi virus strains isolated from ticks collected from vegetation in eastern Slovakia.
- P36 **N. Holubová**, I. Rudolf, M. Kváč, K. Mravcová, S. Šikutová, B. Sak: Ticks as potential vectors of microsporidia.
- P37 **J. Radzijeuskaja**, J. Snegiriovaitė, I. Lipatova, M. Razgūnaitė, A. Paulauskas: Prevalence of *Anaplasma phagocytophilum* and *Neoehrlichia mikurensis* in *Ixodes ricinus* ticks collected in urban areas of Lithuania.
- P38 **A. Schreiberová**, Z. Cellengová, B. Peťko, B. Hajdová: Occurrence of Rickettsiales from questing ticks in urban districts in Košice (Eastern Slovakia).
- P39 **I. Daubnerová**, L. Roller, D. Žitňan: Functional characterization of receptors in tick *Ixodes ricinus*.
- P40 **V. Klöcklerová**, L. Roller, J. Koči, M. Slovák, I. Daubnerová, D. Žitňan: Characterization of insect parathyroid hormone-like peptide in the hard tick *Ixodes ricinus*.
- P41 **M. Chvostáč**, B. Mangová, M. Kazimírová, Yu. M. Didyk, R. Caban, S. Purgatová, P. Rajská, V. Rusňáková Tarageľová: Winter activity of ticks on big game animals in the Small Carpathians (southwestern Slovakia).
- P42 **F. Rubel**: *Ixodes laguri*, a grassland and steppe tick that parasitizes critically endangered rodents.
- P43 **B. Mangová**, M. Chvostáč, J. Krištofík, R. Caban, S. Purgatová, P. Rajská, M. Kazimírová: Winter activity of ectoparasites (deer keds, chewing lice, sucking lice) on game animals in the Small Carpathians (southwestern Slovakia).

16.45-18.15 Trip - Nordic Walking with instructor (max. 10 participants)

18.45 - 02.00 Closing ceremony with announcement of the winners of student competitions, Gala dinner

FRIDAY May 17, 2024

8.00-10.30 Breakfast and departure of participants