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Education

- 2015 – 2020 Doctoral program in Zoology, Department of Zoology, Faculty of Science, Charles University. Ph.D. degree received in July 2020. Thesis: *Anaerobic ciliates as a model group for studying the biodiversity and symbioses in anoxic environments*, supervised by prof. RNDr. Ivan Čepička, Ph.D.
- 2013 – 2015 Master's program in Protistology, Department of Zoology, Faculty of Science, Charles University. MSc. degree received in 2015, *Rerum naturalium doctor* (RNDr.) in Protistology received in 2016. Thesis: *Morphological and molecular diversity of the free-living representatives of the family Metopidae and the discovery of a new lineage of anaerobic ciliates*, supervised by prof. RNDr. Ivan Čepička, Ph.D.
- 2010 – 2013 Bachelor's program in Molecular Biology and Biochemistry of Organisms, Faculty of Science, Charles University. BSc. degree received in 2013. Thesis: *The use of DNA barcoding method in protists*, supervised by prof. RNDr. Ivan Čepička, Ph.D.

Appointments

- 2020 – now Postdoctoral research scholar at University of Rhode Island (RI, USA), Graduate School of Oceanography, Coastal Institute, Beinart Lab.
- 2019 – 2020 Principal researcher in Charles University Grant Agency funding project nr. 116119, titled *Phylogeny and diversity of anaerobic ciliates of the class Odontostomatea (SAL, Ciliophora) and characterization of their methanogenic symbionts*.
- 2019 – 2021 Member of the research team in Czech Science Foundation (GACR) project nr. 19-19297S titled *Free-living anaerobic ciliates as a model group for studying the biodiversity and symbioses in anoxic environments*.
- 2018 – 2020 Member of the research team in Czech Science Foundation (GACR) project nr. 18-18699S, titled *Non-standard genetic codes in protists and their evolution*.
- 2015 – 2018 Principal researcher in Charles University Grant Agency funding project nr. 389915, titled *Diversity and Evolution of Anaerobic Ciliates, an ecologically important but poorly known group of protists*.
- 2014 – 2017 Scientific researcher at Charles University (Czech Republic), Faculty of Science, Department of Zoology
- 2019 – 2020 of Zoology

Publications in impacted scientific journals

Rotterová, J., Salomaki, E., Pánek, T., Bourland, W., Žihala, D., Táborský, P., Edgcomb, V. P., Beinart, R. A., Kolísko, M., Čepička, I., 2020. Genomics of new ciliate lineages provides insight into the evolution of obligate anaerobiosis. **Current Biology** 30: 1–14. (IF 9.193)

Bourland, W., **Rotterová, J.**, Čepička, I., 2020. Description of three new genera of Metopidae (Metopida, Ciliophora): *Pileometopus* gen. nov., *Castula* gen. nov., and *Longitaenia* gen. nov., with notes on the phylogeny and cryptic diversity of metopid ciliates. **Protist**, *In Press*. (IF 3.000)

Bourland, W., **Rotterová, J.**, Čepička, I., 2018. Morphologic and molecular characterization of *Brachonella pulchra* (Kahl, 1927) comb. nov. (Armophorea, Ciliophora) with comments on cyst structure and formation. **International Journal of Systematic Evolutionary Microbiology** 68:3052–3065. (IF 2.166)

Rotterová, J., Bourland, W., Čepička, I., 2018b. Corrigendum to ‘Tropidoatractidae fam. nov., a deep branching lineage of Metopida (Armophorea, Ciliophora) found in diverse habitats and possessing prokaryotic symbionts’ [Protist 169 (2018) 362–405]. **Protist** 169: 788–789. (IF 3.000)

Rotterová, J., Bourland, W., Čepička, I., 2018. Tropidoatractidae fam. nov., a deep branching lineage of Metopida (Armophorea, Ciliophora) found in diverse habitats and possessing prokaryotic symbionts. **Protist** 169: 362–405. (IF 3.000)

Beinart, R.A., **Rotterová, J.**, Čepička, I., Gast, R.J., Edgcomb, V.P., 2018. The genome of an endosymbiotic methanogen is very similar to those of its free-living relatives. **Environmental Microbiology** 20: 2538–2551. (IF 5.147)

Bourland, W., **Rotterová, J.**, Luo, X., Čepička, I., 2018. The little-known freshwater metopid ciliate, *Idiometopus turbo* (Dragesco and Dragesco-Kernéis, 1986) nov. gen., nov. comb., originally discovered in Africa, found on the Micronesian island of Guam. **Protist** 169: 494–506. (IF 3.000)

Warren, A., Patterson, D. J., Dunthorn, M., Clamp, **Rotterová, J.**, et al., 2017. Beyond the “Code”: A Guide to the Description and Documentation of Biodiversity in Ciliated Protists (Alveolata, Ciliophora). **Journal of Eukaryotic Microbiology** 64: 539–554. (IF 2.361)

Bourland, W.A., **Rotterová, J.**, Čepička, I., 2017. Redescription and molecular phylogeny of *Metopus es* Lauterborn, 1916 and *Brachonella contorta* Jankowski, 1964, based on broad geographic sampling. **European Journal of Protistology** 59: 133–154. (IF 2.626)

Bourland, W.A., **Rotterová, J.**, Čepička, I., 2017. Morphologic and molecular characterization of seven species of the remarkably diverse metopid genus *Apometopus* Foissner, 2016 (Armophorea, Ciliophora). **European Journal of Protistology** 61: 194–232. (IF 2.626)

Presentations at selected international conferences from last five years

Rotterová, J., Salomaki, E., Pánek, T., Bourland, W.A., Edgcomb, V.P., Táborský, P., Žihala, D., Beinart, R.A., Kolísko, P., Čepička, I., 2019. Where oxygen is not popular – phylogenomic analysis of anaerobic ciliates (Ciliophora). VIII. ECOP (European Congress of Protistology) – ISOP (International Society of Protistologists) Joint Meeting, Rome, Italy.

Rotterová, J., Beinart, R.A., Edgcomb, V.P., Bourland, W.A., Táborský, P., Kolísko, P., Čepička, I., 2018. Phylogenomic analysis of SAL super-group (Ciliophora), including novel marine lineages of anaerobic ciliates, which host prokaryotic symbionts. ISEP (International Society of Evolutionary Protistology), Paphos, Cyprus.

Beinart, R.A., **Rotterová, J.**, Sylva, S., Seewald, J.S., Čepička, I., Gast, R.G., Edgcomb, V.P., 2017. Metabolic functioning of a ciliate-methanogen symbiosis from anoxic habitats, 6th International Symposium on Chemosynthesis-Based Ecosystems (CBE6), Woods Hole, Massachusetts, USA.

Rotterová J., Beinart, R., Edgcomb, V., Bourland W., Čepička I., 2017. Novel marine lineages of anaerobic ciliates hosting prokaryotic symbionts, XV. ICOP (International Congress of Protistologists), Prague, Czech Republic.

Rotterová J., Nováková L., Čepička I., 2015. Mapping the diversity of Metopida and revealing new marine anaerobic ciliates hosting prokaryotic symbionts, VII. ECOP 2015, Seville, Spain.

Awards

2018 – Best doctoral poster in 2018 prize awarded in competition at Department of Zoology, Faculty of Science, Charles University, Prague, Czech Republic

2018 – ISEP (International Society of Evolutionary Protistology) Travel Award from FEMS (Federation of European Microbiology Societies)

2015 – Awarded scholarship from the program for supporting talented PhD students at the Faculty of Science, Charles University (STARS)

2016 – Hlávková Foundation Endowment for an internship in WHOI, MA, USA (2016)

2016 – Mobility Fund of Charles University (MFCU) support for internship in WHOI, MA, USA (2016)

2014 – Hlávková Foundation Endowment for ISOP congress contribution in Banff, AB, Canada (2014)

2014 – Best conference poster at 44th Jírovec Protozoological days, Krásná, Czech Republic

Memberships in scientific organizations

Since 2018 – Czech Slovak Society of Microbiology

Since 2018 – International Society for Evolutionary Protistology

Since 2015 – International Society of Protistologists

Since 2014 – Czech Society of Parasitology, Protozoological Section

Since 2020 – American Society for Cell Biology

Scientific internships and selected workshops

- 10/2019 EMBO Workshop - Comparative genomics of eukaryotic microbes: Genomes in flux, and flux between genomes, Sant Felieu, Spain.
- 8 – 9/2019 Scientific internship in the laboratory of Dr. Roxanne Beinart, Graduate School of Oceanography, University of Rhode Island, RI, USA.
- 2/2019 Evomics Workshop on Phylogenomics, Český Krumlov, Czech Republic.
- 7/2018 OstraPy, Ostrava, Czech Republic – bioinformatics workshop focused on coding in Python language.
- 6 – 9/2016 Scientific internship in the laboratory of Dr. Virginia Edgcomb, Department of Geology & Geophysics, Woods Hole Oceanographic Institution, MA, USA.
- 7 – 8/2016 Molecular Evolution Workshop (MEW), Marine Biological Laboratory (MBL), Woods Hole, MA, USA, visiting attendance as an internship student of Woods Hole Oceanographic Institution (WHOI).
- 7 – 8/2016 Microbial Diversity Course (MDC), MBL, Woods Hole, MA, USA, visiting attendance as an internship student of WHOI.
- 7 – 8/2016 Strategies and Techniques for Analyzing Microbial Population Structures (STAMPS), MBL, Woods Hole, MA, USA, visiting attendance as an internship student of WHOI.
- 5/2014 IRCN - BC workshop on ciliate diversity and methods of ciliate taxonomy, Royal Holloway, University of London (RHUL), Egham, United Kingdom.

Conference organization and volunteer activity

- 2020 Co-organizer of international virtual scientific Online Poster Session on Protists (#ProtistSession), 10th – 14th of August, 2020.
- 2018 – 2019 Main organizer and head coordinator of international scientific conference 49th Jírovec Protozoological Days, 22nd – 26th of April, 2019 (Protodays 2019).
- 2014 – 2019 Chairman and co-founder of non-governmental organization The Kukang Rescue Program r.s., focused on conservation, rehabilitation, and reintroduction of Greater slow loris (*Nycticebus coucang*) in Northern Sumatra.

Teaching & advising activities at Faculty of Science, Charles University

- 2015 – 2019 Assistant, Lecturer, Practical Course in Protistology, Department of Zoology.
- 2019 External lecturer on Diversity of Ciliophora, Protistology, Department of Zoology.
- 2019 – 2020 Advisor of Master's student MSc. BSc. Ondřej Pomahač, Thesis: *Diversity and phylogeny of metopid ciliates of the IAC group* (supervised by prof. RNDr. Ivan Čepička, Ph.D.), Department of Zoology.
- 2017 – 2020 Advisor of Master's student BSc. Kateřina Poláková, Thesis: *Prokaryotic symbionts of free-living anaerobic protists* (supervised by prof. RNDr. Ivan Čepička, Ph.D.), Department of Zoology.
- 2015 – 2017 Advisor of Bachelor's student Kateřina Poláková, Thesis: *Diversity of scuticociliates and their symbionts* of student (supervised by prof. RNDr. Ivan Čepička, Ph.D.), Department of Zoology.
- 06/2017 Oponent at Bachelor's Thesis Defense of student Aneta Kubánková (supervised by doc. Mgr. Vladimír Hampl, Ph.D.), Thesis: *Prokaryotic symbionts of protists living in the intestine of wood eating cockroaches and termites*, Department of Parasitology.

Technical skills

Molecular methods of isolation, amplification, purification, cloning, and sequencing of eukaryotic and prokaryotic DNA/RNA.

Laboratory methods of cultivation of anaerobic protists and prokaryotes.

Light and fluorescence microscopy methods (CARD Fluorescence *in situ* hybridization methods; microphotography, BF, DIC, phase contrast, Nomarski, living and fixed cells observations; methods of fixing and cell staining, such as protargol-staining or silver-carbonate; image analyses).

Electron microscopy (scanning EM to study the morphology of fixed cells, transmission EM to assess an ultrastructure of fixed cells, image analysis and interpretation).

Bioinformatics methods (user level - RaxML-ng, PhyloBayes, IQ Tree, QIIME, Blast, Unix, and other tools for biological methods of sequence analyses; genomics and transcriptomics methods for phylogenomics and *in silico* predictions of metabolic pathways; primer design; R and Python language – beginner).

Language skills

Czech – native speaker (C1 – C2 level)

English – near-native speaker (C1 – C2 level)

German, Spanish, Italian, Slovak – semi-fluent speaker (B1 – B2 level)

French, Indonesian – beginner (A1 – A2 level)