Eglė Rudaitytė-Lukošienė

CONTACT INFORMATION

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EDUCATION AND ACADEMIC DEGREE

2016 – 2020	Doctoral degree in Natural Sciences, Biology (N 010) (Nature Research Center, Vytautas Magnus University and Center for Innovative Medicine). Dissertation topic: "*Sarcocystis* species richness in members of the family cervidae", supervisor - dr. P. Prakas. Research area: *Sarcocystis*, parasitology, phylogeny, genetic diversity, deer.
2014 – 2016	Vilnius University, Genetics / Master. Master thesis topic: "Genetic diversity and phylogenetic relationships of *Sarcocystis* spp. parasitizing sika deer (*Cervus nippon*)". The work was carried out at the Nature Research Center, Laboratory of Molecular Ecology. Field of research: *Sarcocystis*, species identification by classical and molecular methods.
2010 – 2014	Vilnius University, Genetics / Bachelor. Thesis topic: "The evaluation of the biological activity of medicinal plant extracts". The work was carried out at Vilnius University, Faculty of Natural Sciences, Department of Botany and Genetics. Field of research: genotoxicology, method of micronuclei in binuclear lymphocytes.

PROFESSIONAL EXPERIENCE

2021 – until now	**Researcher** Laboratory of molecular ecology, Nature Research Center
2015 – 2020	**Engineer** Laboratory of molecular ecology, Nature Research Center

RESEARCH INTERESTS

Microscopy of *Sarcocystis* parasites and DNA isolation from single microscopic sarcocysts. Identification of protozoan species using microscopic, molecular and phylogenetic methods of *Sarcocystis* parasite research: preparation of PCR reactions, electrophoresis, DNA sequencing with a 3500 genetic analyzer, sequence analysis. Analyzing the obtained data by describing the results of light and electron microscopy and interpreting the molecular data.

PUBLICATIONS

Scientific articles published in journals (books), indexed in „Clarivate Analytics Web of Science" database (with citation index):

1. Marandykina-Prakienė A, Butkauskas D, Gudiškis N, Juozaitytė-Ngugu E, Januškevičius V, **Rudaitytė-Lukošienė E**, Prakas P (2022) Molecular identification of *Sarcocystis* species in sheep from Lithuania. Animals (Basel) 12:2048. DOI: 10.3390/ani12162048
2. **Rudaitytė-Lukošienė E**, Jasiulionis M, Balčiauskas L, Prakas P, Stirkė V, Butkauskas D (2022) Morphological and molecular description of *Sarcocystis myodes* n. *sp*. from the bank vole (*Clethrionomys glareolus*) in Lithuania. Biology (Basel) 11:512. DOI: 10.3390/biology11040512
3. Delgado-de Las Cuevas GE, Prakas P, **Rudaitytė-Lukošienė E**, García-Gil ML, Martínez-González M, Butkauskas D, Mowery JD, Dubey JP, Habela MA, Calero-Bernal R (2021) First description of *Sarcocystis* species infecting Barbary sheep (*Ammotragus lervia*). Parasitol Res 120:2881–2886. DOI:10.1007/s00436-021-07239-z
4. **Rudaitytė-Lukošienė E**, Prakas P, Butkauskas D (2021) Molecular identification of seven *Sarcocystis* species in red deer (*Cervus elaphus*) from Lithuania. Parasitol Int 85:102419. DOI: 10.1016/j.parint.2021.102419
5. Prakas P, Rehbein S, **Rudaitytė-Lukošienė E**, Butkauskas D (2021) Molecular identification of *Sarcocystis* species in diaphragm muscle tissue of European mouflon (*Ovis gmelini musimon*) from Austria. Parasitol Res 120:2695–2702. DOI:10.1007/s00436-021-07212-w
6. Prakas P, **Rudaitytė-Lukošienė E**, Šneideris D, Butkauskas D (2021) Invasive American mink (*Neovison vison*) as potential definitive host of *Sarcocystis elongata*, *S. entzerothi*, *S. japonica*, *S. truncata* and *S. silva* using different cervid species as intermediate hosts. Parasitol Res 120:2243–2250. DOI:10.1007/s00436-021-07180-1
7. Prakas P, Strazdaitė-Žielienė Ž, Januškevičius V, Chiesa F, Baranauskaitė A, **Rudaitytė-Lukošienė E**, Servienė E, Petkevičius S, Butkauskas D (2020) Molecular identification of four *Sarcocystis* species in cattle from Lithuania, including *S. hominis*, and development of a rapid molecular detection method. Parasit Vector 13:610. DOI:10.1186/s13071-020-04473-9
8. Prakas P, Kirillova V, Dzerkale A, Kirjušina M, Butkauskas D, Gavarāne I, **Rudaitytė-Lukošienė E**, Šulinskas G (2020) First molecular characterization of *Sarcocystis miescheriana* in wild boars (*Sus scrofa*) from Latvia. Parasitol Res. 119:3777–3783. DOI:10.1007/s00436-020-06882-2
9. **Rudaitytė-Lukošienė E**, Delgado de Las Cuevas GE, Prakas P, Calero-Bernal R, Martínez-González M, Strazdaitė-Žielienė Ž, Servienė E, Habela MA, Butkauskas D (2020) *Sarcocystis* spp. diversity in the roe deer (*Capreolus capreolus*) from Lithuania and Spain. Parasitol Res. 119:1363–1370. DOI:10.1007/s00436-020-06603-9
10. **Rudaitytė-Lukošienė E**, Prakas P, Strazdaitė-Žielienė Ž, Servienė E, Januškevičius V, Butkauskas D (2020) Molecular identification of two *Sarcocystis* species in fallow deer (*Dama dama*) from Lithuania. Parasitol Int. 75:102044. DOI:10.1016/j.parint.2019.102044
11. Vyšniauskienė R, Rančelienė V, Naugžemys D, **Rudaitytė-Lukošienė E**, Patamsytė J, Butkauskas D, Kupčinskienė E, Žvingila D (2019) Genetic diversity of *Nuphar lutea* in Lithuanian river populations. Aquat Bot. DOI:10.1016/j.aquabot.2019.103173
12. Delgado de Las Cuevas GE, Prakas P, Strazdaitė-Žielienė Ž, Martínez-González M, **Rudaitytė-Lukošienė E**, Butkauskas D, Servienė E, Habela MA, Calero-Bernal R (2019) *Sarcocystis morae* (Apicomplexa) in fallow deer (*Dama dama*) from Spain: Ultrastructure and new host record. J Parasitol. 105:813–815. DOI:10.1645/19-56
13. Prakas P, Kirillova V, Gavarāne I, Grāvele E, Butkauskas D, **Rudaitytė-Lukošienė E**, Kirjušina M (2019) Morphological and molecular description of *Sarcocystis ratti* n. sp. from the black rat (*Rattus rattus*) in Latvia. Parasitol Res. 118:2689–2694. DOI:10.1007/s00436-019-06393-9
14. Prakas P, Kirillova V, Calero-Bernal R, Kirjušina M, **Rudaitytė-Lukošienė E**, Habela MÁ, Gavarāne I, Butkauskas D (2019) *Sarcocystis* species identification in the moose (*Alces alces*) from the Baltic States. Parasitol Res 118:1601–1608. DOI:10.1007/s00436-019-06291-0
15. Prakas P, Strazdaitė-Žielienė Ž, **Rudaitytė-Lukošienė E**, Servienė E, Butkauskas D (2018) Molecular identification of *Sarcocystis lutrae* (Apicomplexa: Sarcocystidae) in muscles of five

species of the family Mustelidae. Parasitol Res 117:1989–1993. DOI:10.1007/s00436-018-5880-0
16. Kirillova V, Prakas P, Calero-Bernal R, Gavarāne I, Fernández-García JL, Martínez-González M, **Rudaitytė-Lukošienė E**, Martínez-Estéllez MÁH, Butkauskas D, Kirjušina M (2018) Identification and genetic characterization of *Sarcocystis arctica* and *Sarcocystis lutrae* in red foxes (*Vulpes vulpes*) from Baltic States and Spain. Parasite Vector 11:173. DOI:10.1186/s13071-018-2694-y
17. **Rudaitytė-Lukošienė E**, Prakas P, Butkauskas D, Kutkienė L, Vepštaitė-Monstavičė I, Servienė E (2018) Morphological and molecular identification of *Sarcocystis* spp. from the sika deer (*Cervus nippon*), including two new species *Sarcocystis frondea* and *Sarcocystis nipponi*. Parasitol Res 117:1305–1315. DOI:10.1007/s00436-018-5816-8
18. Prakas P, **Rudaitytė E**, Butkauskas D, Kutkienė L (2017) *Sarcocystis entzerothi* n. sp. from the European roe deer (*Capreolus capreolus*). Parasitol Res 116:271–279. DOI:10.1007/s00436-016-5288-7
19. Prakas P, Butkauskas D, **Rudaitytė E**, Kutkienė L, Sruoga A, Pūraitė I (2016) Morphological and molecular characterization of *Sarcocystis taeniata* and *Sarcocystis pilosa* n. sp. from the sika deer (*Cervus nippon*) in Lithuania. Parasitol Res 115:3021–3032. DOI:10.1007/s00436-016-5057-7

PARTICIPATION IN INTERNATIONAL AND NATIONAL SCIENTIFIC PROGRAMMES AND PROJECTS

2020 – 2022	**primary implementer** of the project "Molecular identification of *Sarcocystis* parasites in definitive hosts and environmental water samples", funded by Research Council of Lithuania. Grant number: S-MIP-20-24.
2018 – 2021	**secondary implementer** of the international project of EUREKA program entitled "Innovative multifunctional biotextile, integrated with silica dioxide and succinite development, and its impact on biosystems". Grant number: 01.2.2-MITA-K-702-02-0002.
2017 – 2020	**primary implementer** of the project "Investigation into diversity of *Sarcocystis* species form cervids and cattle", funded by Research Council of Lithuania. Grant number: S-MIP-17-45.
2015 – 2018	**secondary implementer** of the project "Anthropogenic effects of some Lithuanian river ecosystem vegetation component stability" of the National Research Program "Sustainability of agro-, forest and water ecosystems". Grant number: SIT-2/2015.
2015 – 2015	**secondary implementer** of the project "Investigations into genus *Sarcocystis* parasites from birds order Anseriformes", funded by Research Council of Lithuania. Grant number: MIP-055/2013.

INTERNSHIP AND TRAINING

2019 m. 10 / 11	*Toxoplasma gondii* isolation, *in vitro* parasite proliferation, serological methods and strains genotyping (Complutense University of Madrid, Madrid, Spain)

PARTICIPATION IN SCIENTIFIC CONFERENCES

International scientific conferences:

1. **Rudaitytė-Lukošienė E**, Rehbein S, Butkauskas D, Prakas P. Molecular identification of *Sarcocystis* spp. from digested muscles of European mouflon (*Ovis aries musimon*). 9th Conference of the Scandinavian - Baltic Society for Parasitology; 2021 Apr 21-23; Vilnius, Lithuania. 2021.

2. Prakas P, Juozaitytė-Ngugu E, **Rudaitytė-Lukošienė E**, Šneideris D, Butkauskas D. Molecular identification of *Sarcocystis* species in the intestines of mustelids from Lithuania. 9th Conference of the Scandinavian - Baltic Society for Parasitology; 2021 Apr 21-23; Vilnius, Lithuania. 2021.
3. **Rudaitytė-Lukošienė E**, Prakas P, Butkauskas D, Šneideris D. Identification of *Sarcocystis* spp. in intestine of American mink using molecular *COI* analysis. 79th International Scientific Conference of the University of Latvia. Innovative and applied research in biology. 2021 Feb 5; Riga, Latvia. 2021.
4. **Rudaitytė-Lukošienė E**, Prakas P, Strazdaitė-Žielienė Ž, Butkauskas D. Investigation of *Sarcocystis* species infection in fallow deer (*Dama dama*). 5th International meeting on Apicomplexan parasites in farm animals; 2019 Oct 2-4; Berlin, Germany. 2019.
5. Prakas P, Strazdaitė-Žielienė Ž, Januškevičius V, Chiesa F, Baranauskaitė A, **Rudaitytė-Lukošienė E**, Servienė E, Petkevičius S, Butkauskas D. Molecular identification of Sarcocystis hominis and other three *Sarcocystis* species in cattle meat from Lithuania. 5th International meeting on Apicomplexan parasites in farm animals. 2019 Oct 2-4; Berlin, Germany. 2019.
6. Strazdaitė-Žielienė Ž, Baranauskaitė A, **Rudaitytė-Lukošienė E**, Januškevičius V, Dobrovolskis L, Servienė E, Butkauskas D, Prakas P. Optimization of molecular identification of *Sarcocystis* species from cattle meat. FEBS3+ conference; 2019 Jun 17-19; Riga, Latvia. 2019.
7. Prakas P, Kirillova V, **Rudaitytė-Lukošienė E**, Gavarane I, Juozaitytė-Ngugu E, Gravele E, Kirjušina M, Butkauskas D. Molecular investigations on *Sarcocystis* parasites in the Baltic States. The 7th Baltic Genetics Congress; 2018 Oct 24-27; Riga, Latvia. 2018.
8. **Rudaitytė-Lukošienė E**, Butkauskas D, Martínez-González M, Delgado GE, Habela MA, Calero-Bernal R, Prakas P. *Sarcocystis* parasites diversity from roe deer (*Capreolus capreolus*) in Lithuania and Spain. 6th International Scientific Conference Infectious and Parasitic Diseases of Animals; 2018 Sep 13-14; Košice, Slovakia. 2018.
9. **Rudaitytė-Lukošienė E**, Strazdaitė-Žielienė Ž, Servienė E, Butkauskas D, Prakas P. Morphological and molecular identification of eight *Sarcocystis* species from sika deer (*Cervus nippon*) in Lithuania. XV th International Conference of the Lithuanian Biochemical Society; 2018 Jun 26–29; Dubingiai, Lithuania. 2018.
10. **Rudaitytė E**, Prakas P, Butkauskas D, Kutkienė L, Sruoga A, Pūraitė I. Morphological and molecular characterization of *Sarcocystis* species from sika deer (*Cervus nippon*) in Lithuania. The 12th European Multicolloquium of Parasitology; 2016 Jul 20–24; Turku, Finland. 2016.
11. **Rudaitytė E**, Kutkienė L, Prakas P, Butkauskas D, Sruoga A, Pūraitė I. Molecular identification of *Sarcocystis* species from sika deer (*Cervus nippon*) in Lithuania based on *cox1* gene. VI Baltic Genetics Congress; 2015 Sep 30–Oct03; Tartu, Estonia. 2015.

National scientific conferences:

1. Žvingila D, Kupčinskienė E, Vyšniauskienė R, Patamsytė J, Naugžemys D,Rančelienė V, Kleizaitė V, Jocienė L, Šikšnianienė JB, Butkuvienė J, Sinkevičienė Z, Duchovskienė L, **Rudaitytė-Lukošienė E**. Antropogeninio poveikio įtaka kai kurių Lietuvos upių ekosistemų augalų rūšių genetinei struktūrai. Nacionalinė mokslo programa Agro-, miško ir vandens ekosistemų tvarumas: ketverių metų mokslinių tyrimų rezultatai; Sausio 30; Vilnius, Lietuva. 2019
2. **Rudaitytė-Lukošienė E**, Prakas P, Strazdaitė-Žielienė Ž, Servienė E, Butkauskas D. Sarcocystis parazitų paplitimo Lietuvos elniniuose (Cervidae) tyrimas. 11-oji jaunųjų mokslininkų konferencija Bioateitis: gamtos ir gyvybės mokslų perspektyvos; Gruodžio 14, Vilnius, Lietuva. 2018.

PARTICIPATION IN THE STUDY PROCESS

Supervision of bachelor and master students:

Naglis Gudiškis	Bachelor thesis topic: „Molecular identification of *Sarcocystis* species in sheep“ (Vilnius University, Life Sciences Center, Molecular biology)	2021 – 2022

OTHER

Awards:

1. 2017, 2019 and 2020 Doctoral scholarship for academic achievements from Research Council of Lithuania.
2. 2016 Lithuanian Society of Young Researchers Award for the best Master thesis in biomedical sciences.