Agnė Baranauskaitė-Lengvinienė

CONTACT INFORMATION

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EDUCATION AND ACADEMIC DEGREE

2021 – 2025	Doctoral student in the field of biology in the science area of Natural Sciences (Vytautas Magnus University and Nature Research Centre). Research theme: "Development and application of molecular methods for the environmental detection of *Sarcocystis* spp.", supervisor – dr. Živilė Strazdaitė-Žielienė. Field of research: extraction of single-celled protozoa from environmental samples, application of genetic engineering and molecular methods for the identification of single-celled protozoa.
2019 – 2021	Vilnius Gediminas Technical University, Bioengineering / Master's degree. Graduation thesis "Optimization of identification of domestic animals infecting *Sarcocystis* parasites from water samples", thesis supervisor – dr. Živilė Strazdaitė-Žielienė. Bachelor's thesis was conducted at the Nature Research Centre, Laboratory of Genetics. Research area: genetic engineering, adaptation, and optimization of molecular methods for identification of *Sarcocystis* spp. from water samples.
2015 – 2019	Vilnius Gediminas Technical University, Bioengineering / Bachelor's degree. Graduation thesis "Optimization of the molecular identification of *Sarcocystis* parasites found in bovine", thesis supervisor – dr. Živilė Strazdaitė-Žielienė. Bachelor's thesis was carried out at the Nature Research Centre, Laboratory of Genetics. Research area: genetic engineering, adaptation, and optimization of molecular methods for identification of *Sarcocystis* spp. from carcass samples.

PROFESSIONAL EXPERIENCE

2026 01 – until now	**Researcher** The State Scientific Research Institute Nature Research Centre Laboratory of Genetics
2023 06 – 2026 01	**Junior researcher** The State Scientific Research Institute Nature Research Centre Laboratory of Genetics
2022 12 – 2023 06	**Biologist** The State Scientific Research Institute Nature Research Centre Laboratory of Genetics

2021 10 – 2025 10	**Doctoral student** The State Scientific Research Institute Nature Research Centre Laboratory of Genetics
2020 03 – 2021 12	**Biologist** The State Scientific Research Institute Nature Research Centre Laboratory of Genetics
2018 09 – 2020 03	**Chief Laboratory Assistant** The State Scientific Research Institute Nature Research Centre Laboratory of Genetics

RESEARCH INTERESTS

Experience in working with genetic structures of microorganisms (DNA) using genetic engineering and molecular biology methods. Identification of *Sarcocystis* parasites by molecular methods in the natural environment. Investigations of molecular mechanisms of yeast common in the natural environment using modern genetic methods.

Identification of microorganisms using genetic methods and application of genetic engineering technologies in research. Experience in working with environmental samples: isolation and identification of yeast from berries and fruits, isolation, and identification of parasites of the genus *Sarcocystis* from environmental and carcass samples. *Sarcocystis* sporocysts' viability studies using flow cytometry. Professional skills: DNA allocation, DNA amplification and sequence analysis. Analysis of the obtained data using computer programs MS Office, Chrome Lite. Skills in working with online databases "EBI", "NCBI", "GeneBank".

PUBLICATIONS

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

1. **Baranauskaitė, A.**, Prakas, P., Petrauskas, M., Rubiola, S., Servienė, E., Strazdaitė-Žielienė, Ž. (2025) First Detection of *Sarcocystis* Parasites in the Environmental Samples from Lithuanian Farms. Food and Waterborne Parasitology, e00267. https://doi.org/10.1016/j.fawpar.2025.e00267
2. **Baranauskaitė, A.**, Prakas, P., Butkauskas, D., Servienė, E., Strazdaitė-Žielienė, Ž. (2024) Diversity of *Sarcocystis* parasites in southeastern Baltic Sea catchment ecosystems. Parasitology Research, 123, 214. https://doi.org/10.1007/s00436-024-08234-w.
3. **Baranauskaitė, A.**, Strazdaitė-Žielienė, Ž., Servienė, E., Butkauskas, D., Prakas, P. Molecular Identification of Protozoan *Sarcocystis* in Different Types of Water Bodies in Lithuania. *Life*. 2023, 13:51. https://doi.org/10.3390/life13010051.
4. Strazdaitė-Žielienė, Ž., **Baranauskaitė, A.**, Butkauskas, D., Servienė, E., Prakas, P. Molecular Identification of Parasitic Protozoa *Sarcocystis* in Water Samples. *Veterinary Sciences*. 2022, *9*(8):412. https://doi.org/10.3390/vetsci9080412.
5. Prakas, P., Strazdaitė-Žielienė, Ž., Januškevičius, V., Chiesa, F., **Baranauskaitė, A.**, Rudaitytė-Lukošienė, E., Servienė, E., Petkevičius, S., Butkauskas, D. Molecular identification of four *Sarcocystis* species in cattle from Lithuania, including *S. hominis*, and development of a rapid molecular detection method. *Parasites Vectors*. 2020, *13*:610. https://doi.org/10.1186/s13071-020-04473-9.

PARTICIPATION IN INTERNATIONAL AND NATIONAL SCIENTIFIC PROGRAMMES AND PROJECTS

2023 – 2026 **project participant** in the Researcher Groups project "Comprehensive analysis of microorganisms and Protozoan parasites in (Lithuanian) farmlands: water, soil, and feed", funded by Research Council of Lithuania. Project leader: dr. Juliana Lukša.

2020 – 2021 **project participant** in the Researcher Groups project "Molecular identification of *Sarcocystis* species in predator and water samples", funded by Research Council of Lithuania. Project leader: dr. Dalius Butkauskas.

2020 – 2021 **project participant** in the Student Scientific Practice project "Investigation of *Sarcocystis* parasites in natural ecosystems and their identification by molecular methods". Funded by Research Council of Lithuania. Supervisor: dr. Živilė Strazdaitė-Žielienė.

INTERNSHIP AND TRAINING

2024 09 08 – 2024 09 21 **Internship at the Laboratory of Environmental Genetics of the University of Latvia, Riga, Latvia. Internship supervisor at the institution assoc. prof. Dr. Dace Grauda.**
During the internship, I learned how to use the flow cytometry method and prepared a protocol to assess the viability of *Sarcocystis* spp. sporocysts in natural samples.

2023 09 10 – 2023 09 22 **Institute of Parasitology, University of Bern (IPB). Supervisor at the institution Gastón Moré, Dr. med. vet., PhD.**
During the internship at IPB, I was able to learn new methods for molecular species identification of *Sarcocystis* spp., *Toxoplasma gondii*, *Neospora caninum* and *Hammondia heydorni* from environmental samples that have not yet been applied in Lithuania. I learned to estimate the concentration of protozoa in natural samples using the qPCR method. Also, I had the opportunity to see how a protozoan-like single cyst is being isolated and identified. The main focus was on learning methods and new ways to identify parasitic protozoa other than *Sarcocystis* (e.g. *Toxoplasma gondii*) from environmental samples.

PARTICIPATION IN SCIENTIFIC CONFERENCES

International scientific conferences:

1. **Baranauskaitė, A.**, Grauda, D., Prakas, P., Servienė, E., Strazdaitė-Žielienė, Ž. Investigation of *Sarcocystis* Sporocyst Persistence in Freshwater Systems. *11th Conference of the Scandinavian-Baltic Society for Parasitology*, August 13-15, 2025, Reykjavík, Iceland. Book of Abstracts, 3.
2. **Baranauskaitė, A.**, Prakas, P., Servienė, E., Strazdaitė-Žielienė, Ž. eDNA-Based Detection of *Sarcocystis* spp. in Lithuanian Livestock Farms. *Conference "FEBS3+ Baltics"*, April 23-25, 2025, Vilnius, Lithuania. Book of Abstracts, 115.
3. **Baranauskaitė, A.**, Prakas, P., Servienė, E., Strazdaitė-Žielienė, Ž. Long-Term Study on Identifying *Sarcocystis* Species in Environmental Samples from Lithuania. *Joint Parasitology Spring Meeting*, March 11-14, 2025, Würzburg, Germany. Book of Abstracts, 417.

4. **Baranauskaitė, A.**, Stundžėnaitė, A., Prakas, P., Servienė, E., Strazdaitė-Žielienė, Ž. Transmission of Sarcocystis spp. in Lithuanian Livestock Farms. *13th International Conference of Young Scientists AGRISCI 2024*, November 26, 2024, Vilnius, Lithuania. Book of Abstracts, 36.
   AWARD: Best Oral Presentation in section "Agrobiology, Agroecology, Agricultural Engineering".
5. **Baranauskaitė, A.**, Strazdaitė-Žielienė, Ž., Stundžėnaitė, A., Prakas, P., Servienė, E. Detection of *Sarcocystis* parasites in Environmental Samples from Farms in Lithuania. *6th European Congress "Applied Microbiology and Beneficial Microbes"*, October 3-4, 2024, Amsterdam, Netherlands. Book of Abstracts, 24.
   AWARD: Best presentation award for presenting the best poster presentation in the conference.
6. **Baranauskaitė, A.**, Prakas, P., Servienė, E., Strazdaitė-Žielienė, Ž. Detection of *Sarcocystis* species infecting domestic animals in Lithuanian livestock farms. *14th European Multicolloquium of Parasitology Europos „EMOP XIV"*, August 26-30, 2024, Wroclaw, Poland. Book of Abstracts, 45.
7. **Baranauskaitė, A.**, Prakas, P., Butkauskas, D., Servienė, E., Strazdaitė-Žielienė, Ž. Detection of *Sarcocystis* Parasites in the Environmental Samples. *International conference The COINS 2024*, April 15-18, 2024, Vilnius, Lithuania. Book of Abstracts: 240.
8. Stundžėnaitė, A., **Baranauskaitė, A.**, Prakas, P., Servienė, E., Starkevič, P., Strazdaitė-Žielienė, Ž. Investigation of Possible Vector-Borne Transmission of *Sarcocystis* Parasites. *International conference The COINS 2024*, April 15-18, 2024, Vilnius, Lietuva. Book of Abstracts, 85.
9. **Baranauskaitė, A.**, Strazdaitė-Žielienė, Ž., Prakas, P., Butkauskas, D., Servienė, E. Prevalence of domestic animals infecting Sarcocystis parasites in samples from sediment of water bodies in the Baltic States and Poland. 2023. *Congress of European Microbiologists "FEMS2023"*, July 9-13, Hamburg, Germany. Book of Abstracts: 703.
10. Stundžėnaitė, A.*, **Baranauskaitė, A.***, Strazdaitė-Žielienė, Ž., Prakas, P., Servienė, E. Prevalence of Sarcocystis parasites in environmental samples from Lithuania. 2023. *The Coins conference*, April 24-27, Vilnius, Lithuania. Book of Abstracts: 86. *These authors contributed equally to this work.
    AWARD: *Best presentation award* for presenting the best poster presentation in the category of Biology & Ecology.
11. **Baranauskaitė, A.**, Strazdaitė-Žielienė, Ž., Prakas, P., Butkauskas, D., Servienė, E. 2023. Identification of *Sarcocystis* Parasites from Animal Carcass and Environmental Samples Using *cox1* as Genetic Marker. VIII Baltic Genetics Congress, March 22–24, Kaunas, Lithuania. Book of Abstracts, 27.
    AWARD: 3rd place as the *Best Oral Presentation*.
12. Prakas, P., Butkauskas, D., Servienė, E., Strazdaitė-Žielienė, Ž., Gudiškis, N., **Baranauskaitė, A.**, Marandykina-Prakienė, A., Rudaitytė-Lukošienė, E., Juozaitytė-Ngugu, E. 2022. Investigation of *Sarcocystis* spp. found in sheep and horses from Lithuania. *6th International Meeting on Apicomplexan Parasites in Farm Animals*, October 5–7, Bern, Switzerland. Book of Abstracts: 73.
13. **Baranauskaitė, A**. 2022. Prevalence and diversity of *Sarcocystis* infections in bovine animals in Lithuania. *The international conference „Mikrobiologija 2022",* April 28–29, Birštonas, Lithuania. Book of Abstracts: 25.
14. **Baranauskaitė, A.**, Strazdaitė-Žielienė, Ž., Petrauskas, M., Paliovkinas, D., Prakas, P., Servienė, E. 2022. Optimization of molecular identification of *Sarcocystis* parasites infecting domestic animals. *The international conference „Mikrobiologija 2022"*, April 28–29, Birštonas, Lithuania. Book of Abstracts: 50.
15. **Baranauskaitė, A.**, Strazdaitė-Žielienė, Ž., Prakas, P., Servienė, E. 2022. Prevalence of domestic animals infecting *Sarcocystis* parasites in samples from different types of water in Lithuania. *The*

International conference Coins 2022, February 28 – March 3, Vilnius, Lithuania. Book of Abstracts, I2.
AWARD: Best presentation award for presenting the best poster presentation in the category of Biology & Ecology.

16. Strazdaitė-Žielienė, Ž., **Baranauskaitė, A.,** Rudaitytė-Lukošienė, E., Servienė, E., Butkauskas, D., Dobrovolskis, L, Šikšniūtė, E., Prakas P. 2021. Microorganisms diversity and prevalence in Baltic states aquatic ecosystems. *World microbe forum online conference*, June 20–24.
17. **Baranauskaitė, A.**, Strazdaitė-Žielienė, Ž., Prakas, P., Servienė, E. 2021. Optimization of identification of domestic animals infecting *Sarcocystis* parasites found in water. *9th Conference of the Scandinavian - Baltic Society for Parasitology*, April 21–23. Book of Abstracts: 69.
18. **Baranauskaitė, A.**, Strazdaitė-Žielienė, Ž., Prakas, P., Servienė, E. 2021. Prevalence of *Sarcocystis* parasites infecting farmed animals in water samples from Lithuania. *The Coins 2021 Conference*, March 30, Vilnius, Lithuania. Book of Abstracts: 67.
19. **Baranauskaitė, A.**, Prakas, P., Servienė, E., Strazdaitė-Žielienė, Ž. 2021. Molecular identification of *Sarcocystis* species and their prevalence in environmental samples. *The Coins 2021 Conference*, March 30, Vilnius, Lithuania. Book of Abstracts: 69.
20. Prakas, P., Strazdaitė-Žielienė, Ž., Januškevičius, V., Chiesa, F., **Baranauskaitė, A.**, Rudaitytė-Lukošienė, E., Servienė, E., Petkevičius, S., Butkauskas, D. 2019. Molecular identification of Sarcocystis hominis and other three *Sarcocystis* species in cattle meat from Lithuania. *5th International Meeting on Apicomplexan Parasites in Farm Animals*, September 2–4, Berlin, Germany.
21. Strazdaitė-Žielienė, Ž., **Baranauskaitė, A.**, Rudaitytė-Lukošienė, E., Januškevičius, V., Servienė, E., Butkauskas, D., Dobrovolskis, L., Prakas P. 2019. Optimization of molecular identification of *Sarcocystis* species from cattle meat. *FEBS3+ conference*, June 17–19, Riga, Latvia

National scientific conferences:

1. **Baranauskaitė, A.**, Dobrovolskis, L., Prakas, P., Servienė, E., Strazdaitė-Žielienė, Ž. 2023. Mikroorganizmų įvairovė ir paplitimas Lietuvos teritorinėje Baltijos jūros pakrantėje ir pajūrio upių baseino telkiniuose. *Jūros ir krantų tyrimai – 2023*, April 19–21, Nida, Lithuania.
2. **Baranauskaitė, A.**, Strazdaitė-Žielienė, Ž. 2021. *Sarcocystis* parazitų paieška gamtinėse ekosistemose ir jų identifikavimas molekuliniais metodais. *Student scientific conference*, May 11.

SUPERVISION OF STUDENTS' PRACTICES AND THESIS

1. **Student summer practice** (Funded by Research Council of Lithuania). Thesis topic: Influence of physical and chemical factors on *Sarcocystis* spp. sporocyst viability. Student Aistė Stundženaitė. Agreement with RCL No. P-SV-24-184. Duration of internship 01.07.2024 – 08.30.2024.
2. **Bachelor's thesis.** Topic: Viability analysis of *Sarcocystis* spp. parasitic protozoa. Student Aistė Stundženaitė.

PROFESSIONAL ACTIVITY

Member of: Lithuanian Microbiological Society (LT-LMS), Lithuanian Biochemical Society (LBD), Scandinavian-Baltic Society for Parasitology (SBSP).