

Rita Žiegytė

CONTACT INFORMATION

Address

Akademijos Str. 2, Vilnius LT-08412, Lithuania

Tel. no.:

+370 5 272 92 69

E-mail:

rita.ziegyte@gamtc.lt

<http://orcid.org/0000-0001-8782-0121>

<https://www.researchgate.net/profile/Rita-Ziegyte-kazlauskiene>

The authors surname **Kazlauskienė** was changed to **Žiegytė** in 2013

EDUCATION AND ACADEMIC DEGREE

- 2010 – 2014 Ph.D., Zoology, Biomedical sciences, Nature Research Centre and Vilnius University, Vilnius, Lithuania.
- 2004 – 2006 M. Sc., Biology, 2006, Faculty of Natural Sciences, Vilnius Pedagogical University, Lithuania.

PROFESSIONAL EXPERIENCE

- 2017 until now **Senior researcher** at P.B. Šivickis Laboratory of Parasitology, Nature Research Centre (Vilnius, Lithuania)
- 2014–2016 **Researcher** at P.B. Šivickis Laboratory of Parasitology, Nature Research Centre (Vilnius, Lithuania)
- 2011–2014 **Doctoral student** and **Junior Researcher** at P.B. Šivickis Laboratory of Parasitology, Nature Research Centre (Vilnius, Lithuania).

RESEARCH INTERESTS

Avian haemosporidian parasites, their sporogonic development in dipteran insects and determination of natural vectors. Host-parasite interactions, evolution and disease diagnosis using traditional parasitological, experimental, field and molecular research methods.

PUBLICATIONS

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

1. Palinauskas, Vaidas; **Žiegytė, Rita**; Šengaut, Jakov; Bernotienė, Rasa. Experimental study on primary bird co-infection with two *Plasmodium relictum* lineages-pSGS1 and pGRW11. **Animals**. Basel : MDPI. ISSN 2076-2615. **2022**, vol. 12, iss. 15, art. no. 1879, p. 1-11. DOI: 10.3390/ani12151879.
2. **Žiegytė, Rita**; Bernotienė, Rasa; Palinauskas, Vaidas. Culicoides segnis and Culicoides pictipennis biting midges (Diptera, Ceratopogonidae), new reported vectors of

- Haemoproteus* parasites. **Microorganisms**. Basel : MDPI. eISSN 2076-2607. **2022**, vol. 10, iss. 5, art. no. 898, p. 1-9. DOI: 10.3390/microorganisms10050898.
3. Aželytė, Justė; Wu-Chuang, Alejandra; **Žiegytė, Rita**; Platonova, Elena; Mateos-Hernandez, Lourdes; Maye, Jennifer; Obregon, Dasiel; Palinauskas, Vaidas; Cabezas-Cruz, Alejandro. Anti-microbiota vaccine reduces avian malaria infection within mosquito vectors. **Frontiers in immunology**. Lausanne : Frontiers Media S.A. eISSN 1664-3224. **2022**, vol. 13, art. no. 841835, p. 1-16. DOI: 10.3389/fimmu.2022.841835.
 4. **Žiegytė, Rita**; Bernotienė, Rasa. Contribution to the knowledge on black flies (Diptera: Simuliidae) as vectors of *Leucocytozoon* (Haemosporida) parasites in Lithuania. **Parasitology international**. Clare : Elsevier. ISSN 1383- 5769. eISSN 1873-0329. **2022**, vol. 87, art. no.102515, p. 1-3. DOI: 10.1016/j.parint.2021.102515.
 5. **Žiegytė, Rita**; Platonova, Elena; Kinderis, Egidijus; Mukhin, Andrey; Palinauskas, Vaidas; Bernotienė, Rasa. *Culicoides* biting midges involved in transmission of haemoproteids. **Parasites and vectors**. London : BioMed Central Ltd. eISSN 1756-3305. **2021**, vol. 14, iss. 1, art. no. 27, p. [1-9]. DOI: 10.1186/s13071-020-04516-1.
 6. **Žiegytė, Rita**; Platonova, Elena; Bernotienė, Rasa; Valkiūnas, Gediminas; Palinauskas, Vaidas. Complete sporogony of the blood parasite *Haemoproteus nucleocondensus* in common biting midges: Why is its transmission interrupted in Europe? **Parasitology**. New York : Cambridge University Press. ISSN 0031-1820. eISSN 1469- 8161. **2020**, vol. 147, iss. 5, p. 593-600. DOI: 10.1017/S0031182020000116.
 7. Palinauskas, Vaidas; Platonova, Elena; **Žiegytė, Rita**; Mukhin, Andrey. Dynamics of blood stage and sporozoite-induced malarial infections in experimentally infected passerines. **International journal for parasitology**. Oxford : Elsevier Ltd. ISSN 0020-7519. eISSN 1879-0135. **2020**, vol. 50, iss. 13, p. 1057-1065. DOI: 10.1016/j.ijpara.2020.05.015.
 8. Bukauskaitė, Dovilė; Romeiro Fernandes Chagas, Carolina; Bernotienė, Rasa; **Žiegytė, Rita**; Ilgūnas, Mikas; Ježova, Tatjana; Valkiūnas, Gediminas. A new methodology for sporogony research of avian haemoproteids in laboratory-reared *Culicoides* spp., with a description of the complete sporogonic development of *Haemoproteus pastoris*. **Parasites & vectors**. London: BMC. ISSN 1756-3305. **2019**, vol. 12, iss. 1, art. no. 582, p. [1-13]. DOI: 10.1186/s13071-019-3832-x.
 9. Bernotienė, Rasa; **Žiegytė, Rita**; Vaitkutė, Gabrielė; Valkiūnas, Gediminas. Identification of a new vector species of avian haemoproteids, with a description of methodology for the determination of natural vectors of haemosporidian parasites. **Parasites & vectors**. London: BMC. ISSN 1756-3305. **2019**, vol. 12, art. no. 307, p. [1-10]. DOI: 10.1186/s13071-019-3559-8.
 10. Palinauskas, Vaidas; Bernotienė, Rasa; **Žiegytė, Rita**; Bensch, Staffan; Valkiūnas, Gediminas. Experimental evidence for hybridization of closely related lineages in *Plasmodium relictum*. **Molecular and biochemical parasitology**. Amsterdam : Elsevier B.V. ISSN 0166-6851. eISSN 1872-9428. **2017**, vol. 217, p. 1-6. DOI: 10.1016/j.molbiopara.2017.08.002.
 11. **Žiegytė, Rita**; Markovets, Mikhail Yu.; Bernotienė, Rasa; Mukhin, Andrey; Ježova, Tatjana; Valkiūnas, Gediminas; Palinauskas, Vaidas. The widespread biting midge *Culicoides impunctatus* (Ceratopogonidae) is susceptible to infection with numerous *Haemoproteus* (Haemoproteidae) species. **Parasites and vectors**. London : BioMed Central Ltd. eISSN 1756-3305. **2017**, vol. 10, art. no. 397, p. 13-35. DOI: 10.1186/s13071-017-2317-z.
 12. Palinauskas, Vaidas; **Žiegytė, Rita**; Iezhova, Tatjana A.; Ilgūnas, Mikas; Bernotienė, Rasa; Valkiūnas, Gediminas. Description, molecular characterisation, diagnostics and life cycle of *Plasmodium elongatum* (lineage pERIRUB01), the virulent avian malaria parasite. **International journal for parasitology**. Oxford : Elsevier Ltd. ISSN 0020-7519. eISSN 1879-0135. **2016**, vol. 46, iss. 11, p. 697-707. DOI: 10.1016/j.ijpara.2016.05.005.

13. Žiegytė, Rita; Bernotienė, Rasa; Palinauskas, Vaidas; Valkiūnas, Gediminas. *Haemoproteus tartakovskyi* (Haemoproteidae): Complete sporogony in *Culicoides nubeculosus* (Ceratopogonidae), with implications for avian haemoproteid experimental research. **Experimental parasitology**. ISSN 0014-4894. **2016**, Vol. 160, p. 17-22. DOI: 10.1016/j.exppara.2015.11.003.
14. Palinauskas, Vaidas; Žiegytė, Rita; Ilgūnas, Mikas; Ježova, Tatjana; Bernotienė, Rasa; Bolshakov, Casimir V. Description of the first cryptic avian malaria parasite, *Plasmodium homocircumflexum* n. sp., with experimental data on its virulence and development in avian hosts and mosquitoes // **International journal for parasitology**. ISSN 0020-7519. **2015**, Vol. 45, iss. 1, p. 00-00. DOI: 10.1016/j.ijpara.2014.08.012.
15. Valkiūnas, Gediminas; Žiegytė, Rita; Palinauskas, Vaidas; Bernotienė, Rasa; Bukauskaitė, Dovilė; Ilgūnas, Mikas; Dimitrov, Dimitar; Ježova, Tatjana. Complete sporogony of *Plasmodium relictum* (lineage pGRW4) in mosquitoes *Culex pipiens pipiens*, with implications on avian malaria epidemiology. **Parasitology international**. ISSN 1383-5769. **2015**, Vol. 114, iss. 8, p. 3075-3085. DOI: 10.1007/s00436-015-4510-3.
16. Žiegytė, Rita; Palinauskas, Vaidas; Bernotienė, Rasa; Ježova, Tatjana; Valkiūnas, Gediminas. *Haemoproteus minutus* and *Haemoproteus belopolskyi* (Haemoproteidae): Complete sporogony in the biting midge *Culicoides impunctatus* (Ceratopogonidae), with implications on epidemiology of haemoproteosis. **Experimental parasitology**. ISSN 0014-4894. **2014**, Vol. 145, p. 74-79. DOI: 10.1016/j.exppara.2014.07.014.
17. Valkiūnas, Gediminas; Kazlauskienė, Rita; Bernotienė, Rasa; Bukauskaitė, Dovilė; Palinauskas, Vaidas; Ježova, Tatjana. *Haemoproteus infections* (Haemosporida, Haemoproteidae) kill bird-biting mosquitoes. **Parasitology research**. ISSN 0932-0113. **2014**, Vol. 113, iss. 3, p. 1011-1018. DOI: 10.1007/s00436-013-3733-4.
18. Žiegytė, Rita; Bernotienė, Rasa; Bukauskaitė, Dovilė; Palinauskas, Vaidas; Ježova, Tatjana; Valkiūnas, Gediminas. Complete sporogony of *Plasmodium relictum* (lineages pSGS1 and pGRW11) in mosquito *Culex pipiens pipiens* form *molestus*, with implications to avian malaria epidemiology. **Journal of parasitology**. ISSN 0022-3395. **2014**, Vol. 100, iss. 6, p. 878-882. DOI: 10.1645/13-469.1.
19. Valkiūnas, Gediminas; Kazlauskienė, Rita; Bernotienė, Rasa; Palinauskas, Vaidas; Ježova, Tatjana. Abortive long-lasting sporogony of two *Haemoproteus* species (Haemosporida, Haemoproteidae) in the mosquito *Ochlerotatus cantans*, with perspectives on haemosporidian vector research. **Parasitology research**. ISSN 0932-0113. **2013**, Vol. 112, iss. 6, p. 2159-2169. DOI: 10.1007/s00436-013-3375-6.
20. Kazlauskienė, Rita; Bernotienė, Rasa; Palinauskas, Vaidas; Ježova, Tatjana; Valkiūnas, Gediminas. *Plasmodium relictum* (lineages pSGS1 and pGRW11) : Complete synchronous sporogony in mosquitoes *Culex pipiens pipiens*. **Experimental parasitology**. ISSN 0014-4894. **2013**, Vol. 133, iss. 4, p. 454-461. DOI: 10.1016/j.exppara.2013.01.008.

Scientific articles published in conference proceedings, indexed in „Clarivate Analytics Web of Science“ database:

1. Žiegytė, R., Bernotienė, R., Palinauskas V. The development of avian malaria co-infections in experimentally exposed vectors. Fifth International Conference on Malaria and Related Haemosporidian Parasites of Wildlife: September 5-8, 2022. Book of abstracts: 137. Bielefeld, Germany.
2. Žiegytė, R., Platonova, E., Palinauskas, V., Bernotienė, R. *Culicoides* biting midges involved in transmission of haemoproteids. 9th Conference of the Scandinavian - Baltic Society for Parasitology. April 21–23, 2021. Book of abstracts: 65. Vilnius, Lithuania.

3. Kazak, M., Bernotienė, R., Palinauskas, V., **Žiegytė, R.** Trypanosomatids in wild-caught biting midges. 9th Conference of the Scandinavian - Baltic Society for Parasitology., April 21-23, 2021. Book of abstracts: 37. Vilnius, Lithuania.
4. Iezhova, T. A., Bernotienė, R., Bukauskaitė, D., Chagas, R. F. C., Kazak, M., **Žiegytė, R.**, Valkiūnas, G. Development of two avian Trypanosoma species in experimentally infected bloodsucking insects. 9th Conference of the Scandinavian - Baltic Society for Parasitology. April 21–23, 2021. Book of abstracts: 90. Vilnius, Lithuania.
5. **Žiegytė, R.**, Platonova, E., Kinderis, E., Mukhin, A., Palinauskas, V., Bernotienė, R. Some notes on the transmission on haemoproteus parasites in eastern part of Baltic region. The 62nd International Scientific Conference of Daugavpils University. May 28-29, 2020. Book of abstracts: 21. Daugavpils, Latvija. Internetinė prieiga: https://dukonference.lv/files/Tezes_62_KONF_FINAL.pdf
6. **Žiegytė, R.**, Bernotienė, R., Palinauskas, V., Valkiūnas, G. Why haemosporidian parasites widespread in warm climate regions are not transmitted in Europe? The 8th Conference of the Skandinavian-Baltic Society for Parasitology (SBSP) and the Annual Meeting of the European Veterinary Parasitology College (EVPC). October 9–11, 2019. Book of abstracts: 25. Copenhagen, Denmark.
7. Bernotienė, R., **Žiegytė, R.**, Valkiūnas, G. Identification of natural vectors of avian haemoproteids. The 8th Conference of the Skandinavian-Baltic Society for Parasitology (SBSP) and the Annual Meeting of the European Veterinary Parasitology College (EVPC). October 9-11, 2019. Book of abstracts: 79. Denmark. <http://csbsp8evpc2019.eu/PROGRAM.html>
8. Palinauskas, V., **Žiegytė, R.**, Šengaut, J., Avdevič, S., Bernotienė, R. Experimental study on avian *Plasmodium* co-infections: the development patterns and impact on vertebrate health. The 8th Conference of the Skandinavian-Baltic Society for Parasitology (SBSP) and the Annual Meeting of the European Veterinary Parasitology College (EVPC). October 9-11, 2019. Book of abstracts: 24. Copenhagen, Denmark.
9. **Žiegytė, R.**, Bernotienė, R., Valkiūnas, G., Palinauskas, V. Why widespread *Haemoproteus nucleocondensus* (lineage hGRW8) is not transmitted in Europe? 4th International Conference on Malaria and Related Haemosporidian Parasites of Wildlife. November 1–5, 2018. Book of abstracts: 90. Beijing, China.
10. Mukhin, A., Platonova, E., **Žiegytė, R.**, Palinauskas, V. From nature into the lab: comparison of experimental studies on avian malaria parasites. 7th Conference of the Scandinavian-Baltic Society for Parasitology. June 8-9, 2017. Book of abstracts: 31. Ryga, Latvia.
11. Palinauskas, V., **Žiegytė, R.**, Ilgūnas, M., Iezhova, T.A., Bernotienė, R., Valkiūnas, G. Cryptic speciation: first case in avian *Plasmodium* parasites. 7th Conference of the Scandinavian-Baltic Society for Parasitology. June 8-9, 2017. Book of abstracts: 32. Ryga, Latvia.
12. Bernotienė, R., **Žiegytė, R.**, Valkiūnas G. Determination of natural vectors of haemosporidian parasites. 4th International Conference on Malaria and Related Haemosporidian Parasites of Wildlife, Beijing, China, November 1–5, 2018. Book of abstracts: 48. Beijing, Kinija.
13. Palinauskas, V., **Žiegytė, R.**, Šengaut, J., Bernotienė, R. Different paths – the same virulence: Experimental study on avian single and co-infections with *P. relictum* and *P. elongatum*. 4th International Conference on Malaria and Related Haemosporidian Parasites of Wildlife. November 1-5, 2018. Book of abstracts: 78. Beijing, China.

14. Platonova, E., Mukhin, A., Žiegytė, R., Palinauskas, V. A comparative analysis of natural and experimental *Plasmodium relictum* infection in passerine birds. *4th International Conference on Malaria and Related Haemosporidian Parasites of Wildlife. November 1–5, 2018.* Book of abstracts: 79. Beijing, China.

Other reviewed scientific publications (books, books' chapters, collections of articles, articles, textbooks and etc.):

1. Žiegytė, R., Valkiūnas, G. Recent advances in vector studies of avian haemosporidian parasites. *Ekologija.* 2014, Vol. 60, no. 4, p. 73-83. DOI: 10.6001/ekologija.v60i4.3042.

PARTICIPATION IN INTERNATIONAL AND NATIONAL SCIENTIFIC PROGRAMMES AND PROJECTS

1. Scientist group project (**2020–2025**). Project name "Natural anti- α -Gal antibodies and the protection against avian malaria". Project No S-MIP-22-52. **Principal project implementer.**
2. Scientist group project (**2020–2022**). Project name „Investigation of factors limiting the spread of avian haemosporidian infections“. Project No S-MIP-20-25. **Project supervisor.**
3. European Union Structural Funds. Promotion of Post-Doctoral Fellowships (**2017–2019**). Project number 09.3.3-LMT-K-712-02-0047 “Species identification of the biting midges and black flies involved in transmission of haemosporidian parasites”. **Research fellow.**
4. European Union Structural Funds. Development of the scientific competence of a student through practical work, (**2018** July-August). Project number 09.3.3.-LMT-K-712-09-0157 ‘Investigation of avian blood parasite in dipteran insects (Culicidae, Ceratopogonidae)’. **Project supervisor.**
5. European Union Structural Funds “Virulence of avian malaria: untangling genetic players for infection severity”. Award No 09.3.3-LMT-K-712-01-0016, (**2017–2021**). **Investigator.**
6. Research Council of Lithuania. “Development of vector-borne mixed blood infections and their effect on host fitness”. Award No MIP-038/2015, (**2015–2018**). **Principal project implementer.**
7. Global Grant. *Mechanisms of speciation in malaria parasites and related haemosporidians.* Award VPI-3.1.-ŠMM-07-K-01-047, (**2011–2015**). **Investigator.**

INTERNSHIP AND TRAINING

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| 2019 | Postdoctoral internship, Seville, Spain. |
| 2011 | Training "Wildlife Malarial Parasites", West Virginia, United States of America. |

PARTICIPATION IN SCIENTIFIC CONFERENCES

International scientific conferences:

1. **Žiegtė, R.**, Platonova, E., Palinauskas, V., Bernotienė, R. *Culicoides* biting midges involved in transmission of haemoproteids. 9th Conference of the Scandinavian - Baltic Society for Parasitology „Parasites in a changing world“. 2021 m. balandžio 21–23 d. Vilnius, Lietuva.
2. **Žiegtė, R.**, Platonova, E., Kinderis, E., Mukhin, A., Palinauskas, V., Bernotienė, R. Some notes on the transmission on haemoproteus parasites in eastern part of Baltic region. The 62nd International Scientific Conference of Daugavpils University. 2020 m. gegužės 28–29 d. Daugpilis, Latvija.
3. Platonova, E., **Žiegtė, R.**, Palinauskas, V., Bernotienė, R. Biting midges involved in transmission of *Haemoproteus* spp. parasites. The 8th Conference of the Skandinavian-Baltic Society for Parasitology (SBSP) and the Annual Meeting of the European Veterinary Parasitology College (EVPC). 2019 m. spalio 9–11 d., Kopenhaga, Danija.
4. **Žiegtė, R.**, Bernotienė, R., Palinauskas, V., Valkiūnas, V. Why haemosporidian parasites widespread in warm climate regions are not transmitted in Europe? The 8th Conference of the Skandinavian-Baltic Society for Parasitology (SBSP) and the Annual Meeting of the European Veterinary Parasitology College (EVPC). 2019 m. spalio 9–11 d., Kopenhagen, Danija.
5. Palinauskas, V., **Žiegtė, R.**, Šengaut, J., Avdeič, S., Bernotienė, R. Experimental study on avian *Plasmodium* co-infections: the development patterns and impact on vertebrate health. The 8th Conference of the Skandinavian-Baltic Society for Parasitology (SBSP) and the Annual Meeting of the European Veterinary Parasitology College (EVPC). 2019 m. spalio 9–11 d., Kopenhagen, Danija.
6. Palinauskas, V., **Žiegtė, R.**, Ilgūnas, M., Iezhova, T., Bernotienė, R., Valkiūnas, G. Cryptic speciation: first case in avian *Plasmodium* parasites (Rūšių dvynių susidarymas: pirmas atvejis tarp paukščių *Plasmodium* parazitų). 7th Conference of the Scandinavian-Baltic Society for Parasitology. 2017 m. birželio 8–9 d. Ryga, Latvija.
7. Bernotienė, R., **Žiegtė, R.**, Valkiūnas G. Determination of natural vectors of haemosporidian parasites. 4th International Conference on Malaria and Related Haemosporidian Parasites of Wildlife. 2018 m. lapkričio 1–5 d. Pekinas, Kinija.
8. Palinauskas, V., **Žiegtė, R.**, Šengaut, J., Bernotienė, R. Different paths – the same virulence: experimental study on avian infections. 21st Conference on Laboratory Animals in Research, Balt-LASA (Baltijos laboratorinių gyvūnų tyrimų asociacija). 2018 m. lapkričio 23 d. Vilnius, Lietuva.
9. Platonova, E., Mukhin, A., **Žiegtė, R.**, Palinauskas, V. A comparative analysis of natural and experimental *Plasmodium relictum* infection in passerine birds. 4th International Conference on Malaria and Related Haemosporidian Parasites of Wildlife, Beijing Normal University (Pekino pedagoginis universitetas). 2018 m. lapkričio 1–5 d. Pekinas, Kinija.
10. **Žiegtė, R.**, Bernotienė, R., Valkiūnas, G., Palinauskas, V. Why widespread *Haemoproteus nucleocondensus* (lineage hGRW8) is not transmitted in Europe? 4th International Conference on Malaria and Related Haemosporidian Parasites of Wildlife, Beijing Normal University (Pekino pedagoginis universitetas). 2018 m. lapkričio 1–5 d. Pekinas, Kinija.
11. Bernotienė, R., **Žiegtė, R.**, Valkiūnas, G. Identification of natural vectors of avian haemoproteids. The 8th Conference of the Scandinavian – Baltic Society for Parasitology (SBSP) and the Annual Meeting of the European Veterinary Parasitology College (EVPC) - CSBSP8EVPC2019. 2019 m. spalio 9–11 d., Kopenhagen, Danija.

National scientific conferences:

Žiegytė, R. Eksperimentiniai hemosporidinių parazitų tyrimai pernešėjuose. Šiuolaikiniai biologijos tyrimai Lietuvoje. Šiuolaikiniai biologijos tyrimai Lietuvoje. 2017 m. rugsėjo 20 d. Vilnius, Lietuva. Internetinė prieiga: <http://www.lma.lt/2017-09-20-siuolaikiniai-biologijos-tyrimai-lietuvoje-2017-m-konferencija-yra-skirta-parazitologijos-tyrimams-ir-akademikui-vytautui-kontrimaviciui-1930-2016-atminti>

PARTICIPATION IN THE STUDY PROCESS

Supervision of bachelor and master students:

Gabrielė Vaitkutė, Kristina Valavičiūtė, Evelina Krol, Margarita Kazak, Aleksandra Vaivadaitė (Vilnius University).

OTHERS

Scholarships, awards and recognitions:

- 2017 Scholarship from Lithuanian State Science and Studies Foundation.
- 2017 Lithuanian Academy of Sciences award for Young Scientist Research cycle entitled “The experimental study of malaria and related blood parasites: determination of vectors and pathology caused in the vectors”.
- 2014 Lithuanian Research Council grant for academic visits.
- 2013, 2014 Scholarship from Lithuanian Research Council for academic achievements.
- 2013 Young Scientist Award. Best presentation at the 5th Conference of the Scandinavian-Baltic Society for Parasitology, Copenhagen.
- 2011 Training award for young researchers from the Malaria Research Coordination Network, USA.

External professional activities:

- 2016–present - Member and Secretary of Animal Welfare Council, Nature Research Centre.
- 2014–present - Member of the Baltic Laboratory Animal Science Association.
- 2013–present - Member Scandinavian-Baltic Society for Parasitology.