

Carolina Romeiro Fernandes Chagas

CONTACT INFORMATION

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EDUCATION AND ACADEMIC DEGREE

2012-2016 Doctoral degree in the field of Tropical Medicine (Institute of Tropical Medicine, São Paulo University).
Dissertation topic: „*Plasmodium* spp. in wild birds in São Paulo Zoo: identification with microscopy and amplification of mitochondrial cytochrome *b* gene“, supervisor - dr. K. Kirchgatter.
Field of research: molecular biology, parasitology, blood parasites, avian malaria, wildlife, conservation.

2008 – 2011 Nove de Julho University – Brazil, Biological Sciences / Bachelor
Bachelor Theme: “Occurrence of endoparasites in Ramphastidae in São Paulo Zoo”, supervisor – dr A.S. Barnabé
Field of research: wildlife, parasitology, enteroparasites, blood parasites, diagnosis

PROFESSIONAL EXPERIENCE

2021 06 – until now **Senior researcher/Post-doctorate**
P. B. Šivickis Laboratory of Parasitology, Nature Research Centre, Lithuania

2020 12 – until now **Senior researcher**
P. B. Šivickis Laboratory of Parasitology, Nature Research Centre, Lithuania

2019 11 – 2020 12 **Researcher**
P. B. Šivickis Laboratory of Parasitology, Nature Research Centre, Lithuania

2017 11 – 2019 11 **Researcher/Post-doctorate**
P. B. Šivickis Laboratory of Parasitology, Nature Research Centre, Lithuania

2013 05 – 2018 01 **Head of Clinical Analysis Laboratory**
Applied Research Department, São Paulo Zoological Foundation, Brazil

2006 09 – 2013 04 **Laboratory assistant**
Veterinary Department, São Paulo Zoological Foundation, Brazil

RESEARCH INTERESTS

Studies on molecular and morphological characterization of parasites belonging to the order Haemosporidian (*Plasmodium*, *Haemosporiteus* and *Leucocytozoon*) and to *Lankesterella* species, identification of their potential vectors, feeding preference of wild *Culicoides* biting midges, exoerythrocytic stages of *Leucocytozoon* parasites.

PUBLICATIONS

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

1. **Chagas CRF**, Hernández-Lara C, Duc M, Valavičiūtė-Pocienė K, Bernotienė R. What Can Haemosporidian Lineages Found in *Culicoides* Biting Midges Tell Us about Their Feeding Preferences? *Diversity*. 2022; 14(11):957. doi: 10.3390/d14110957.
2. **Chagas CRF**, Binkienė R, Valkiūnas G. Description and Molecular Characterization of Two Species of Avian Blood Parasites, with Remarks on Circadian Rhythms of Avian Haematozoa Infections. *Animals*. 2021; 11(12):3490. doi: 10.3390/ani11123490.
3. **Chagas CRF**, Harl J, Preikša V, Bukauskaitė D, Ilgūnas M, Weissenböck H, Valkiūnas G. *Lankesterella* (Apicomplexa, Lankesterellidae) Blood Parasites of Passeriform Birds: Prevalence, Molecular and Morphological Characterization, with Notes on Sporozoite Persistence *In Vivo* and Development *In Vitro*. *Animals* (Basel). 2021 May 18;11(5):1451. doi: 10.3390/ani11051451.
4. **Chagas CRF**, Binkienė R, Ilgūnas M, Iezhova T, Valkiūnas G. The buffy coat method: a tool for detection of blood parasites without staining procedures. *Parasit Vectors*. 2020;13:104. DOI:10.1186/s13071-020-3984-8.
5. Fecchio A, **Chagas CRF**, Bell J, Kirchgatter K. Evolutionary ecology, taxonomy, and systematics of avian malaria and related parasites. *Acta Tropica*. 2020. DOI: 10.1016/j.actatropica.2020.105364.

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

1. Lima TA, Salgado PAB, **Chagas CRF**, Ramos PL, Adriano EA, Gonzalez IHL. Feral cats: parasitic reservoirs in our zoos. *Open J Vet Med*. 2020, 10(8), 126-138. doi: 10.4236/ojvm.2020.108011.
2. Rodrigues B, Salgado PAB, Gonzalez IHL, Quadrini A, Holcman M, Ramos PL, **Chagas CRF**. Comparative analyses of coproscopical techniques to diagnose enteroparasites in a group of captive Indian peafowl (*Pavo cristatus*). *Ann Parasitol*. 2020, 66(3), 397–406. doi: 10.17420/ap6603.279.
3. Calil PR, Puerto G, Dunn JC, **Chagas CRF**, Ramos PL. Molecular and morphological characterization of *Hepatozoon* spp. in Brazilian snakes. *Amphibia-Reptilia*. 2019; 40(2). doi: 10.1163/15685381-20191113.
4. **Chagas CRF**, Gonzalez IHL, Salgado PAB, Ontivero CRGR, Locosque P. Occurrence of endoparasites in Ramphastidae (Aves: Piciformes) in São Paulo Zoo. *Helminthologia*. 2017; 54:81-6. doi: 10.1515/helm-2017-0007.

Reviewed scientific articles, published in Lithuania:

1. Valavičiūtė K, **Chagas CRF**, Bernotienė R. Data on the biting midges of the genus *Culicoides* Latreille (Diptera: Ceratopogonidae) in Labanoras Regional Park (Eastern Lithuania). *Bulletin of the Lithuanian Entomological Society*. 2020, 4:120-124.

PARTICIPATION IN INTERNATIONAL AND NATIONAL SCIENTIFIC PROGRAMMES AND PROJECTS

- 2022 – 2024 **Project implementer** (in Lithuania). Royal Society, United Kingdom. „Prevalence, diversity and host impacts of *Lankesterella* infection in passerine birds”. (Project leader in UK dr J. Dunn).

- 2022 – 2024 **Project implementer** (in Lithuania). BIOTA, FAPESP. „Diversity of hemoparasites in reptiles and amphibians”. (Project leader dr K. Kirchgatter). Project: 2020/15589-3.
- 2021 – 2024 **Project leader** Lithuanian Research Council. „Mechanisms of transmission of avian haemoproteosis”. Project: S-MIP-21-55.
- 2020 – 2022 **Group project implementer** Lithuanian Research Council. „Determination of vectors transmitting haemoproteid parasites of diurnal raptors”. (Project leader Dr D. Bukauskaitė). Project: P-MIP-20-217.
- 2021 – 2023 **Project implementer** Lithuanian Research Council / European Social Fund. „Insights into the pathogenesis of avian leucocytozosis”. (Project leader Dr G. Valkiūnas). Project: 09.3.3-LMT-K-712-23-0010.
- 2017 – 2019 **Project implementer** Lithuanian Research Council / European Social Fund. „Molecular characterization of avian haemosporidian parasites and determination of their vectors”. (Project leader Dr G. Valkiūnas). Project: 09.3.3-LMT-K-712-02-004.

INTERNSHIP AND TRAINING

- 2022 Immunofluorescence. Poultry Clinic. Germany.
- 2019 Phylogenomics. Evomics Workshop. Czech Republic.
- 2014 Animal experimentation. São Paulo University. Brazil.
- 2013 Utilization and Conservation of microscopes, Brazilian Centre of Optical Microscopy, Brazil / Morphological characterizing of avian haemosporidian, Nature Research Centre, Lithuania

PARTICIPATION IN SCIENTIFIC CONFERENCES

International scientific conferences:

1. Bernotienė, R., Binkienė, R., Iezhova, T., **Chagas, C.R.F.** 2022. What other knowledge can we gain by researching avian malarial parasites? – *5th International Conference on Malaria and Related Haemosporidian Parasites of Wildlife*, August 5–8, Bielefeld, Germany. Book of Abstracts: 88.
2. **Chagas, C.R.F.**, Duc, M., Ilgūnas, M., Weissenböck, H., Valkiūnas, G. Exo-erythrocytic stages of Leucocytozoon species in *Turdus philomelos* – *5th International Conference on Malaria and Related Haemosporidian Parasites of Wildlife*, August 5–8, Bielefeld, Germany. Book of Abstracts: 93.
3. Duc, M., Treinys, R., Bernotienė, R., Kazak, M., **Chagas, C.**, Bukauskaitė, D. Identified vectors transmitting haemoproteid parasites of diurnal raptors – *15th International Congress of Parasitology (ICOPA2022)*, August 21-26, Copenhagen, Denmark, abstracts: P496.
4. Anjos, C.C., Fecchio, A., Bicudo, T., Anciães, M., Mathias, B.S., **Chagas, C.R.F.**, Guimarães, L.O., Monteiro, E.F., Kirchgatter, K. Prevalence and genetic diversity of avian haemosporidian parasites in passerine birds from Balbina Hydroelectric Dam in the Brazilian Amazon. *5th International Conference on Malaria and Related Haemosporidian Parasites of Wildlife*, August 5–8, Bielefeld, Germany. Book of Abstracts: 84.
5. **Chagas, C.R.F.**, Hernández-Lara, C., Duc, M., Valavičiūtė-Pocienė, K., Bernotienė, R. Identification of natural vectors of *Haemoproteus* parasites – *15th International Congress of Parasitology (ICOPA2022)*, August 21-26, Copenhagen, Denmark, abstracts: O616.

PARTICIPATION IN THE STUDY PROCESS

Scientific consultant:

Priscila Rodrigues Calil Dissertation theme: „Molecular protocol for *Hepatozoon* spp. identification in captive snakes from São Paulo Zoological Park Foundation“ (São Carlos Federal University, Brazil) 2016-2018

PhD supervisor

German Alberto Gutierrez Liberato Dissertation theme: „Insights into the biology of neglected apicomplexan non-pigmented bird blood parasites of the families Lankesterellidae and Leucocytozoidae“ (Nature Research Centre) 2022-2026

Supervision of bachelor and master students:

Vytautas Preiksa Dissertation theme: „*Lankesterella* spp. (Apicomplexa, Coccidia) parasites from juveniles of genus *Acrocephalus*“ (VU GMC, Institute of Biosciences, Genetic program). 2019-2020

Thiago Clementino Intropidi Bachelor theme: „Coproparasitological analysis of captive *Leontopithecus* spp. (Lesson, 1840)“ (Nove de Julho University, Brazil). 2018

OTHERS

1. Communication to general public (interview). Guardian of Biodiversity. *Ciência no Zoo*, v. 10, p. 36.
2. Communication to general public (interview). Study assesses hemoparasites in the Zoo. *Ciência no Zoo*, v. 10, p. 42
3. Communication to general public (interview). Actions for the health of sloths. *Ciência no Zoo*, v. 18, p. 14.
4. Organization Committee of the 9th Conference of the Scandinavian - Baltic Society for Parasitology (2021, Lithuania).