

DR. PABITRA SAHA

Assistant Professor (W.B.E.S.)

Department of Zoology

Email: pabitra.saha@prtgc.ac.in



Specialization: Genetics

Major Interest Areas: Genetics, Cell & Molecular Biology, Biochemistry, Molecular Parasitology

Academic Credentials:

- Ph. D. in Zoology (2010 – 2013): *University of Calcutta, Kolkata, India*
- M. Phil. in Zoology (2008 – 2010): *University of Burdwan, Burdwan, West Bengal, India*
- Bachelor of Education (2007 – 2008): *University of Calcutta (Govt. College of Education), Banipur, India*
- M. Sc. in Zoology (2004 – 2006): *University of Calcutta (Presidency College), Kolkata, India*
- B. Sc. in Zoology (2000 – 2004): *University of Calcutta (Barasat Govt. College), Kolkata, India*

Teaching Experience

- P. R. Thakur Govt. College, Thakurnagar: *8th Nov, 2019 - Present*
- A. P. C. Roy Govt. College, Siliguri: *21st Feb., 2015 - 7th Nov, 2019*

Courses taken:

- Sem-I: *Non-Chordates I (ZOOACOR01T), Non-Chordates I Lab (ZOOACOR01P)*
- Sem-II: *Non-Chordates II (ZOOACOR03T), Non-Chordates II Lab (ZOOACOR03P) Cell Biology (ZOOACOR04T), Cell Biology Lab (ZOOACOR04P)*
- Sem-III: *Chordates (ZOOACOR05T), Chordates Lab (ZOOACOR05P), Physiology (ZOOACOR06T), Physiology Lab (ZOOACOR06P), Biochemistry (ZOOACOR07T), Biochemistry Lab (ZOOACOR07P)*
- Sem-IV: *Comparative Anatomy (ZOOACOR08T), Animal Physiology (ZOOACOR09T), Animal Physiology Lab (ZOOACOR09P), Immunology (ZOOACOR10T), Immunology Lab (ZOOACOR10P)*
- Sem-V: *Molecular Biology (ZOOACOR11T), Molecular Biology Lab (ZOOACOR11P), Genetics (ZOOACOR12T), Genetics Lab (ZOOACOR12P), & DSE*
- Sem-VI: *Developmental Biology (ZOOACOR13T), Developmental Biology Lab (ZOOACOR13P), Evolutionary Biology (ZOOACOR14T), Evolutionary Biology (ZOOACOR14P) & DSE*
- Sem-I & II (Generic): *Animal Biology (ZOOGCOR01T), Animal Biology Lab (ZOOGCOR01P), Physiology & Biochemistry (ZOOGCOR02T), Physiology & Biochemistry Lab (ZOOGCOR02P)*

Research Interest:

- *Drug resistance of Malaria parasite and Kala-azar Parasite*
- *Molecular epidemiology of Malaria and Leishmaniasis*
- *Medical entomology: Molecular and biochemical basis insecticide resistance*
- *Japanese Encephalitis & Dengue virus infection in Vector mosquitoes and reservoir*

Research Grants Received:

- *Studies on Japanese Encephalitis Virus infection in Pigs and Vector mosquitoes in endemic areas of West Bengal.* Funded by: Dept. of Science & Technology, Govt. of West Bengal. Duration: 2015-2018. Total Grant: 40.48 lakhs. **Role: Co-Principal Investigator.**
- *Leishmaniasis: Elimination to Eradication - a model study in two endemic blocks of West Bengal.* Funded by: National Health Mission, Govt. of West Bengal. Duration: 2016-2021. Total Grant: 185.82 lakhs. **Role: Co-Investigator.**
- *Prevention of resurgence of Leishmaniasis during Post Elimination Period in Erstwhile Endemic Pockets of West Bengal.* Funded by: National Health Mission, Govt. of West Bengal. Duration: 2021-2024. Total Grant: 135.3 lakhs. **Role: Co-Investigator.**
- *Studies on population dynamics and insecticide susceptibility status of dengue vectors in Bidhannagar Municipal Corporation areas, Kolkata, West Bengal.* Funded by: State Urban Development Authority, Govt. of West Bengal. Duration: 2022-2023. Total Grant: 10.15 lakhs. **Role: Co-Investigator.**

Research Experience:

- *Research Fellow (RF):* December, 2009 – May, 2012 at Calcutta School of Tropical Medicine, Kolkata in different research project: "Status of antimalarial drug resistance of *P. falciparum* malaria in the district Bankura, Purulia, Paschim Medinipur and Kolkata"; "Comparative efficacy of various Artemisinin Combination Therapies in treatment of *P. falciparum* malaria in Jalpaiguri"; "Efficacy of CQ in *P. vivax* and genetic analysis of *P. vivax* strain of Kolkata."; "Role of detection and treatment of asymptomatic cases of *P. falciparum* to eliminate malaria: a pilot study in Jalpaiguri and Purulia district, West Bengal"
- *Senior Research Fellow (SRF):* June, 2012 – Feb., 2014 at Calcutta School of Tropical Medicine, Kolkata in research project: "Role of rapid diagnostic kit and oral Miltefosine to control Leishmaniasis in Tribal Population of South Bengal"

List of Publications:

1. Sardar AA, **Saha P***, Maji D, Guha U, Maji AK, Guha SK. Impact of Indoor Residual Spray (IRS) of synthetic pyrethroid (alphacypermethrin) on sand fly population in the Kala-azar endemic areas of Malda district, West Bengal, India. *International Journal of Tropical Insect Science*. 2022. <https://doi.org/10.1007/s42690-022-00830-6>.
2. **Saha P**, Chaudhury A, Maji AK*. Sir U.N. Brahmachari and his battle against Kala-Azar. *Tropical Parasitology*. 2021, 11:89-91.
3. Nath SS, Rahman M, Mallik S, Pramanik N*, Bera DK, **Saha P**, Chakraborty B, Guha SK. Changing pattern of haemoglobin level following anti-malarial treatment among malaria cases attending a tertiary care hospital in Kolkata. *International Journal of Scientific Research*. 2021, 10(10):36-9.
4. Majhi T, Rahman M, Mallik S, **Saha P**, Chakraborty B, Guha SK, Pramanik N*. Persistence of Malarial antigen following antimalarial chemotherapy in Kolkata, West Bengal. *International Journal of Scientific Research*. 2021, 10(09):21-5.

5. Ballav S, Chatterjee M, Sardar AA, Guha U, Guha SK, **Saha P***, Maji AK. Biochemical characterization of insecticide resistance in field population of major JE vectors from northern districts of West Bengal, India. *International Journal of Tropical Insect Science*. 2021, 42:661–75.
6. Ballav S, Chatterjee M, Pramanik T, Biswas A, Maji AK, **Saha P***. Seasonal variation of Japanese encephalitis vector mosquito's populations in vulnerable areas of Northern parts of West Bengal, India. *International Journal of Mosquito Research*. 2021, 8(2):06-18.
7. Guha U, Chatterjee M*, Sardar AA, Jana K, **Saha P**, Maji AK, Guha SK. Assessment of Knowledge, Attitudes, and Practices about Visceral Leishmaniasis in Endemic Areas of Malda District, West Bengal, India. *American Journal of Tropical Medicine and Hygiene*. 2021, 104(2):646–52.
8. Acharya A, Rakshit A, Halder S, Chatterjee M*, Chakrabarti S, **Saha P**, Bera DK, Chakraborty B, Kundu PK, Ghosh T, Maji AK. (2020) Coexistent malaria and filaria among the febrile patients attending for malaria diagnosis: A clinic-based study. *Tropical Parasitology*. 2020, 10(2):109-13.
9. Sardar S, Rakshit A*, Chatterjee M, **Saha P**, Halder S, Chakraborty B, Kundu PK, Bera DK. Vancomycin resistant enterococcal infection in clinical isolates from Kolkata with special reference to distribution of vanA and vanB genes. *International Journal of Scientific Research*. 2020, 9(7): 27-30.
10. Sardar AA, Chatterjee M*, Jana K, **Saha P**, Maji AK, Guha SK, Kundu PK. Seasonal variation of sand fly populations in Kala-azar endemic areas of the Malda district, West Bengal, India. *Acta Tropica*. 2020, 204(2020):105358.
11. **Saha P**, Chatterjee M*, Ballav S, Chowdhury A, Basu N, Maji AK. Prevalence of kdr mutations and insecticide susceptibility among natural population of *Aedes aegypti* in West Bengal. *PLoS ONE*. 2019, 14(4):e0215541.
12. Ghosh S, Sarkar S*, Sarkar D, **Saha P**, Chowdhury A, Sarker M. Comparison of the Effect of Two Different Synthetic Acaricides on the Population Dynamics of Red Spider Mite (*Oligonychus coffeae*) in Two Different Tea Gardens of Terai Region, Darjeeling District, West Bengal, India. *Journal of Biological and Chemical Research*. 2019, 36(1):110-5
13. Sardar AA, **Saha P**, Chatterjee M*, Bera DK, Biswas P, Maji D, Guha SK, Basu N, Maji AK. Insecticide susceptibility status of *Phlebotomus argentipes* and polymorphisms in voltage-gated sodium channel (vgsc) gene in Kala-azar endemic areas of West Bengal, India. *Acta Tropica*. 2018, 185(2018):285–93.
14. Basu N, Chatterjee M, Bera DK, Maji AK, Ballav S, **Saha P***. Susceptibility of *Culex quinquefasciatus* to three commonly used insecticides from West Bengal, India. *International Journal of Recent Scientific Research*. 2018, 9 (2(I)):24402-8.
15. **Saha P**, Ballav S, Chatterjee M, Ganguly S, Sarker M, Biswas AK, Pramanik T, Basu N, Maji AK*. The Status of Susceptibility of Japanese Encephalitis Vectors to Insecticides in Endemic Areas of Northern Districts of West Bengal, India. *Japanese Journal of Infectious Disease*. 2018, 71:91–8.
16. Chatterjee M, Ballav S, Maji AK, Basu N, Sarkar BC, **Saha P***. Polymorphisms in voltage-gated sodium channel gene and susceptibility of *Aedes albopictus* to insecticides in three districts of northern West Bengal, India. *PLoS Neglected Tropical Disease*. 2018, 12(1):e0006192.
17. Guha SK*, Das SB, Chatterjee M, **Saha P**, Ganguly S, Chakraborty A, Ganguly N, Maji AK. Epidemiological studies on leishmaniasis in Murshidabad district of West Bengal, India. *International Journal of Recent Scientific Research*. 2017, 8 (11):21660-4.

18. Chatterjee M, Ganguly S, **Saha P**, Guha SK, Maji AK*. Polymorphisms in pfdhfr and pfdhps genes after five years of artemisinin combination therapy (ACT) implementation from urban Kolkata, India. *Infection, Genetics and Evolution*. 2017, 53:155–9.
19. **Saha P**, Ganguly S, Chatterjee M, Das SB, Kundu PK, Guha SK, Ghosh TK, Bera DK, Basu N, Maji AK*. Asymptomatic leishmaniasis in kala-azar endemic areas of Malda district, West Bengal, India. *PLoS Neglected Tropical Disease*. 2017, 11(2):e0005391.
20. Chatterjee M, Ganguly S, **Saha P**, Guha SK, Basu N, Bera DK, Maji AK*. Polymorphisms in Pfcrt and Pfmdr-1 genes after five years withdrawal of chloroquine for the treatment of Plasmodium falciparum malaria in West Bengal, India. *Infection, Genetics and Evolution*. 2016, 44:281–5.
21. **Saha P***, Ganguly S, Maji AK. Genetic diversity and multiplicity of infection of Plasmodium falciparum isolates from Kolkata, West Bengal, India. *Infection, Genetics and Evolution*. 2016, 43:239–44.
22. Chatterjee M, Ganguly S, **Saha P***, Bera DK, Basu N, Maji AK. Prevalence of G6PD Deficiency among the Malaria Patients in Urban Kolkata, India - A Clinic Based Study. *International Journal of Current Microbiology and Applied Science*. 2016, 5(3):738-44.
23. Chatterjee M, Ganguly S, **Saha P**, Bankura B, Basu N, Das M, Guha SK, Maji AK*. No Polymorphism in Plasmodium falciparum K13 Propeller Gene in Clinical Isolates from Kolkata, India. *Journal of Pathogens*. 2015, Vo 2015, Article ID 374354, 4 pages.
24. Ganguly S*, **Saha P**, Chatterjee M, Roy S, Ghosh TK, Guha SK, Kundu PK, Bera DK, Basu N, Maji AK. PKDL—A Silent Parasite Pool for Transmission of Leishmaniasis in Kala-azar Endemic Areas of Malda District, West Bengal, India. *PLoS Neglected Tropical Disease*. 2015, 9(10):e0004138.
25. **Saha P**, Ganguly S, Dutta S, Kundu PK, Bera DK, Basu N, Maji AK. Impact of artemisinin-based combination therapy on falciparum malaria in urban Kolkata: a clinic based report. *Japanese Journal of Infectious Diseases*. 2015, 68:321–3.
26. Saha P, Ganguly S, **Saha P**, Chatterjee M, Kundu PK, Maji AK. (2015) Comparison of diagnostic methods for the detection and speciation of malarial parasite in urban Kolkata, India. *International Journal of Parasitology Research*. 2015, 7(2):160-63.

List of Books/Book Chapters:

- Mandal DR, Maji AK, Saha P. Methodologies used for Diagnosis of Parasite Infections: A practical Demonstration. In *Contemporary Laboratory and Field Experiments in Zoology*. Page & Chapters; 2015. P. 175-95.

Patents(if any):

- If any

List of Honours/Awards:

- Won 2nd best prize for poster presentation in 8th IAMM (West Bengal Chapter) State Conference, 2013 by presenting the poster entitled “Genetic diversity and Multiplicity of Infection of Plasmodium falciparum in West Bengal, India”.

- *Won 1st prize for poster presentation* in National Level Seminar on Current Research in Biological and Biomedical Sciences, 2016 by presenting the poster entitled “Prevalence of G6PD deficiency among the malaria patients in urban Kolkata – A clinic based study”.

Membership in scientific bodies:

- *Life Member of Indian Association of Medical Microbiologists (IAMM); Membership No: LM2638/15*

Editor/or Editorial Board Member/Reviewer:

- Served as reviewers of different international journals such as ‘Issues in Biological Sciences and Pharmaceutical Research’, ‘Journal of Parasitology’, ‘Medical and Veterinary Entomology’, ‘Tropical Medicine & International Health’, ‘Journal of Asia-Pacific Entomology’.

Lecture Presentations:

- **Pabitra Saha**, Swagata Ganguly, P. K. Kundu, Ardhendu Kumar Maji. “Oral Miltefosine for the Post Kala-azar Dermal Leishmaniasis (PKDL): a follow-up study” in 10th IAMM (WB Chapter) State Conference, 2015; Organized by Department of Microbiology, Calcutta Medical College, Kolkata, September, 2015.
- **Pabitra Saha**, Moytrej Chatterjee, Swagata Ganguly, Nandita Basu and Ardhendu Kumar Maji. “Prevalence of G6PD deficiency among the malaria patients in urban kolkata-a clinic based study” in National seminar on Current research in Biological and Biomedical Sciences, 2016; Organized by Department of Zoology, Gour Banga University, Malda, West Bengal, February, 2016.