



Dr. Pritha Pal

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Summary

My research experiences focus on the diverse fields of oncology and medical biotechnology, including molecular biology, medical microbiology, toxicology, and cytology. I am confident that my experience and training acquired from years of undergraduate till date will help me to pursue academics and research in the concerned and allied fields.

Selected Publications

Journal publications:

1. Banik, R. D., & Pal, P. (2026). Seasonal biosorption of lead by indigenous gram-positive cocci isolated from leather industry effluents of South 24 Parganas, West Bengal. 3 Biotech, DOI: 10.1007/s13205-026-05073-7
2. Basak, T., Banik, R. D., De, D., Pal, P., & Pal, P. (2026). Tissue-specific arsenic bioaccumulation in Labeo rohita and Catla catla across contaminated districts of West Bengal, India. Bulletin of Environmental Contamination and Toxicology, 116, 50. <https://doi.org/10.1007/s00128-026-04210-5>
3. Ghosh, A., Pal, P., & Poddar, S. (2025). The Potential Therapeutic Applications of Copper and Its Complexes and Copper Chelation Therapy. Journal of Research in Allied Life Sciences, 1(1), 01–07. <https://doi.org/10.65525/jrals.v1i1.5>
4. Chourasia, A., Banik, R. D., & Pal, P. (2025). Lead biosorption from paint industry wastewater in Hooghly. *Bioremediation Journal*, 1–9. <https://doi.org/10.1080/10889868.2025.2521390>
5. Pal, P., Dutta, R., Baksi, S. (2023). "Severity of oral carcinoma with respect to various addictions- a study in West Bengal". Journal of Survey in Fisheries Sciences: Vol 1, Issue: 1
6. Pal, P., Halder, A. (2022). "A comparative study of arsenic exposure in human papilloma virus infection and oral squamous cell carcinoma- An alarming interpretation". Contemporary Medical Biotechnology Research for Human Health: Vol. 1, pp: 65-72.
7. Pal, P., Sarkar, S. (2022). "Is there any impact of Human Papilloma Virus infection in oral carcinoma?" Multidisciplinary Review Book. Taurean Publications, New Delhi; ISBN- 978-93-91074-40-1.
8. Pal, P., Sarkar, S. (2022). "Probiotics are highly effective against Viral Infections: Towards illustrating the contributions of probiotics in combating with the viral pathogen" Multidisciplinary Review Book. Taurean Publications, New Delhi; ISBN- 978-93-91074- 40-1.
9. Pal, P., Halder, A. (2021). "Study Of Chronic Arsenic Toxicity In Oral Squamous Cell

Carcinoma". The Journal of Oriental Research Madras: Vol.- XCII-IV. ISSN: 0022-3301.

10. Pal, P., Halder, A. (2021). "Arsenic in Ground Water: A Possible Impact on Oral Health". Acta Scientific Dental Sciences: Vol.- 6(1): 56-60, ISSN: 2581-4893.
11. Pal, P., Raychowdhury, R., Poddar, S., Halder, A. (2019). "Is There Any Effect Of Addictions In Arsenic Induced Oral Carcinoma?". International Journal of Advancement in Life Sciences Research: Vol. 2, no. 2, pp. 36-42.
12. Pal, P., Raychowdhury, R., Basu, S., Gure, P.K., Das, S., Halder, A. (2018). Cytogenetic and micronuclei study of human papillomavirus-related oral squamous cell carcinoma. Journal of Oral & Maxillofacial Pathology: 22(3): 335-340.
13. Pal P, Halder A (2018) Is there any relation of Arsenic Toxicity in HPV related Oral squamous Cell Carcinoma? Biological Trace Elements Research.
14. Pal, P., Halder, A., 2018. Arsenic in HPV Related Oral Carcinoma- A New Threat of the Decade. International Journal of Medical Science and Clinical invention: 5(11): 4129- 4153.
15. Dutta A, De R, Dolai TK, Pal P, Ghosh S, Mitra PK, Halder A. (2018) Incidence of Fanconianaemia in phenotypically normal aplastic anaemia patients in West Bengal, Hematology; 23 (7): 405-412.
16. Pal P, Raychowdhury R, Dolai TK, Roy S, Dastidar R, Halder A (2017) Study of Arsenic Toxicity in Oral/Oropharyngeal Carcinoma in West Bengal. International Journal of Occupational Medicine and Environmental Health; 30 (2): 271-279.
17. Ghosh S, Roy S, Kumar S, Pal P, Dutta A, Halder A. (2017) Homocysteine-Is there any role in Coronary Heart Disease? Journal of Cardiovascular Disease Research; 8(2):46-49.
18. Ghosh S, Roy S, Pal P, Dutta A, Halder A. (2017) Cytogenetic analysis of patients with primary amenorrhea in Eastern India. Journal of obstetrics and gynaecology; 1-6.
19. Ghosh S, Roy S, Pal P, Dutta A, Halder A. (2017) Is there any role of metal toxicity in amenorrhea? Malaysian Journal of Medical Research;1(4):40-44.
20. Pal P, Dutta A, Ghosh S, Halder A (2017) A Comparative Study of Different Risk Factors with Oral Carcinoma- In Special Reference with Arsenic Toxicity. Malaysian Journal of Medical Research; 1 (4): 22-27, ISSN: 2550-1607.
21. Pal P, Raychowdhury R, Halder A (2016) Oral Carcinoma, HPV Infection, Arsenic Exposure - their Correlation in West Bengal, India. Otolaryngology: Open Access. Vol. 6, Issue 5, pp. 6:266.
22. Pal P, Raychowdhury R, Dutta A, Ghosh S, Halder A (2016) Variation of Micronuclei Frequency with Risk Factors in Oral/Oropharyngeal Carcinoma in West Bengal. International Journal of Current Research. Vol. 8, Issue, 02, pp.26235-26237.
23. Roy S, Pal P, Dutta A, Ghosh S, Halder A (2015) Isochromosome Xq: Not a rare finding in short stature females with amenorrhoea. International journal of current research; 7(6), pp.16876-16880 June.

Book chapters:

24. Pal, P., Baksi, S. (2025). Proteomics in Unravelling Secondary Metabolite Synthesis in Plants: Exploring the Microbial Connection. In: Arora, N.K., Pandey,

- P., Mishra, J. (eds) Environmental Sustainability and Biotechnology: Opportunities and Challenges. Microorganisms for Sustainability, vol 46. Springer, Singapore. https://doi.org/10.1007/978-981-96-9025-1_12
25. Baksi, S., Pal, P., Baksi, S. (2025). Green Valorization Protocols for Marine Food Waste: Collagen and Chitin Recovery. In: Sarkar, T. (eds) Food Waste Valorization .Methods and Protocols in Food Science. Humana, New York, NY. https://doi.org/10.1007/978-1-0716-4646-5_15
26. Banik, R.D., Baksi, S., Pal, P. (2025). Advanced Strategies in Microbial Bioremediation of Dyes from Industrial Wastewater. In: Dey, S., Bhattacharya, S. (eds) Biotechnological Interventions in the Removal of Emerging Pollutants. Interdisciplinary Biotechnological Advances. Springer, Singapore. https://doi.org/10.1007/978-981-97-9922-0_16
27. Pal, P., Halder, A. "A comparative study of arsenic exposure in human papilloma virus infection and oral squamous cell carcinoma- An alarming interpretation". Contemporary Medical Biotechnology Research for Human Health. Vol. 1, pp: 65-72, 2022.
28. Pal, P., Sarkar, S. "Is there any impact of Human Papilloma Virus infection in Oral carcinoma". Book Title: Multidisciplinary Review Book, Chapter 2, pp. 23-37, 2022 [Taurean Publications, ISBN: 978-93-91074-40-1].
29. Sarkar, S., Pal, P. "Probiotics are highly effective against viral infections: Towards illustrating the contributions of probiotics in combating with the viral pathogen". Book Title: Multidisciplinary Review Book, Chapter 2, pp. 23-37, 2022 [Taurean Publications, ISBN: 978-93-91074-40-1].

Professional experience

➤ 09/2021-Present |

Academic responsibilities:

Associate Professor & Head

Departments of Microbiology & Biotechnology, School of Life Sciences

Swami Vivekananda University, Barrackpore

Administrative responsibilities:

NAAC Coordinator, Swami Vivekananda University

IQAC Coordinator, Swami Vivekananda University

PhD Coordinator, Swami Vivekananda University

➤ 11/2020 - 8/2021 |

Assistant Professor

Department of Microbiology

Kingston College of Science, Barasat

➤ 2012 – 2019 | Doctoral researcher, Calcutta University

- Study of viral association and effects of heavy metals in oral oncology
- Study of chromosomal abnormalities and cytological parameters

➤ 2009– 2011 | Post-graduate researcher, Calcutta University

- Study of cellulase abundance in eukaryotes
- Study of chromosomal anomalies in chromosomal disorder
- Neuroimaging in Schizophrenia

- 2010 | Chromosomal study of different genetic diseases
Dept. of Genetics, Vivekananda Institute of Medical Sciences, Ramakrishna Mission Seva Pratishthan, Kolkata. Supervisor: Dr. Ajanta Halder
- 2010 | Molecular and biotechnological aspects of cellulase
Dept. of Biotechnology, Presidency College, Kolkata. Supervisor: Dr. Bhaskar Gupta
- 2011-2012 | Deciphering the molecular mechanism of biofilm formation and dispersion in bacteria
Dept. of Biotechnology, Presidency College, Kolkata. Supervisor: Dr. Arijit Bhattacharya
- 2012-2014 | Study of association of human papilloma virus with oral/oropharyngeal squamous cell carcinoma and pre-malignant lesions of oral cavity in the population of west bengal
Dept. of Genetics, Vivekananda Institute of Medical Sciences, Ramakrishna Mission SevaPratishthan, Kolkata. Supervisor: Dr. Ajanta Halder

Education

- PhD in Human Cancer Genetics, Dept. of Physiology, Calcutta University, Kolkata, India
08/2012 – 12/2019
Thesis title: Study Of Association Of Human Papilloma Virus And Arsenic Exposure In Oral Carcinoma In West Bengal.
- MSc in Biotechnology, Calcutta University, Kolkata, India
08/2009-07/2011
- BSc in Microbiology, Calcutta University, Kolkata, India
08/2006 – 07/2009

PhD guidance

Ongoing: 4 scholars
Completed: 1
Thesis submitted: 0
Pre-thesis submitted: 2

Achievements

- Secured DST-INSPIRE FELLOWSHIP 2013-14, Department of Science & Technology, GOVT OF INDIA [Registration No.: IF131188]
- Best paper award in oral presentation on “Gene-environmental interaction in oral squamous cell carcinoma- an interesting correlation and disease severity”, International Conference on Sustainable Environment and Health- 2019, Jadavpur University, Kolkata.
- Best paper award in oral presentation on “Arsenic exposure, human papilloma virus infection and oral squamous cell carcinoma- comparative study and alarming interpretation”, Biospectrum 2018, UEM, Kolkata.
- Best paper in the oral presentation on “Does arsenic toxicity have any relation with oral cancer? - a pilot study” in 28th Annual Scientific Conference, Ramakrishna Mission Seva Pratishthan, Kolkata.

Research interests

Cancer genetics, Bioremediation, Microbiology, Toxicology

Research skills

DNA and RNA isolation from different biological samples, PCR, Molecular cloning, Protein isolation, Agarose gel electrophoresis, SDS PAGE, Human leukocyte culture, Karyotyping, Pap staining, Cytological analysis of human buccal smear samples, Single Radial Immuno-Diffusion, Ouchterlony Double Diffusion, Bacterial isolation, transformation and conjugation, antibiotic assay technique, FISH (Fluorescent In-situ Hybridization)

Technical skills

PCR, ELISA, Spectrophotometer, Microbiological techniques

Programmes organized

- Cytogenetics in genetic disorder and Cancer, 2017, Ramakrishna Mission Seva Pratishthan, Kolkata
- National Conference on Technological Interventions in Life Sciences and Allied Health Sciences, 2022, Swami Vivekananda University, Barrackpore
- Faculty Development Programme on Teaching techniques and Research in Higher Education System, 2022, Swami Vivekananda University, Barrackpore
- International Conference on Engineering Design and Computing- ICEDC 2023, Swami Vivekananda University, Kolkata
- International Conference on Technological Innovations in Agriculture, Life Sciences and Food & Nutrition- ICALF 2023, 2025, 2025, 2026, Swami Vivekananda University, Kolkata
- International Conference on Scientific Advances in Life Sciences, Agriculture and

- Food & Nutrition- ICSA 2023, 2024, 2025, Swami Vivekananda University, Kolkata
- Advanced Instrumentation Workshop & Bioinformatics Workshop- 2025,2026, Swami Vivekananda University
- Faculty Development Programme on Innovations in Indian Higher Education: Promoting Holistic, Multidisciplinary & Inclusive Teaching-Learning & Governance- 2025, Swami Vivekananda University

Oral presentations

- Gene-environmental interaction in oral squamous cell carcinoma- an interesting correlation and disease severity
Pritha Pal, Ajanta Halder
ICSEH (International Conference on Sustainable Environment and Health) 2019, Kolkata, India; December 2019
- Gene-environmental interaction, correlation and severity in oral squamous cell carcinoma- an interesting study
Pritha Pal, Ajanta Halder
33rd Annual Scientific Conference, VIMS, RKMS, Kolkata, India; November 2019
- Oral cancer, arsenic and human *papilloma* virus- a new threat of the decade!
Pritha Pal, Ranjan Raychowdhury, Ajanta Halder
32nd Annual Scientific Conference, VIMS, RKMS, Kolkata, India; November 2018
- Arsenic exposure, human papilloma virus infection and oral squamous cell carcinoma- comparative study and alarming interpretation
Pritha Pal, Ajanta Halder
BIOSPECTRUM 2018, Kolkata, India; August 2018
- A comparative study of different risk factors with oral carcinoma- in special reference with arsenic toxicity
Pritha Pal, Ajanta Halder
Seminar on sustainable environment & healthcare, Kolkata, India; June 2017
- Study of human papilloma virus association and arsenic exposure in oral carcinoma in west bengal
Pritha Pal, Ranjan Raychowdhury, Tushan Kanti Dolai, Ajanta Halder
1st Regional Science Congress, Kolkata, India; November 2016
- Oral carcinoma, HPV infection, arsenic exposure- their correlation in west bengal
Pritha Pal, Ranjan Raychowdhury, Ajanta Halder
29th Annual Scientific Conference, VIMS, RKMS, Kolkata, India; July 2015

Hobbies

- Travelling
- Cooking

References

- Prof. Tarit Roychowdhury,

Professor, School of Environmental Studies, Jadavpur University
email: rctarit@yahoo.com Mob: +91-8902034430

- Dr. Arunima Biswas,
Assistant Professor, Department of Zoology, University of Kalyani,
email: arunima10@gmail.com Mob: +91 9836793528

Declaration

I hereby declare that all the details furnished above are true to the best of my knowledge and belief



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