

Mr. Priyatosh Nath
M.Sc., PhD (Thesis Submitted)

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Objective Statement: Secure a responsible career opportunity to fully utilize my training and skills, while making a significant contribution in science

Experience:

Research Experience:

I have the experience of working in **Immunology and Microbiology Laboratory, Department of Human Physiology and Advanced State Biotech Hub, Tripura University** from August 2013 to May 2015 as a graduate student and then as a Ph.D student since August 2016 and recently I have submitted my thesis. During my stay in the laboratory I have acquired skills on developing and conducting research work in several animal cancer models including, lymphoma, lung cancer and leukemia.

Teaching Experience:

- a) **Guest Faculty** of Human Physiology in **Govt. Degree College Dharmanagar**, Dharmanagar, North-Tripura, India for the tenure of July 2015 to July 2016, under Higher Education Dept. Govt. of Tripura.
- b) **Assistant Professor** in the School of Health Sciences, **The Assam Kaziranga University**, Jorhat, Assam, India from September 2019 to September 2020.
- c) **Assistant Professor** in the Faculty of Health Sciences, **The ICFAI University Tripura, Mohanpur**, West-Tripura, India from **September 2020** and continuing.

Administrative and working Experience:

- a) **Coordinator**, Faculty of Health Sciences, The ICFAI University Tripura, Mohanpur, West-Tripura, India from 7th March 2022 and continuing.
- b) **Member**, IUT NJY Central Library Committee since 2th January 2023.
- c) **Member**, SWAYAM studies committee, IUT since 08th August 2022.

Educational Qualification:

- **PhD (thesis submitted)** in Onco-immunology at Tripura University. Title of the Thesis is “Studies on the expression status of cytokines and BCL-2 family proteins in the bone marrow of leukemic animal model: Possible therapeutic role of IL-28B and certain natural products”
- Qualified **neSLET** Examination (Life-Sciences) for **Assistant Professorship** and **Lectureship** in 2015
- **Masters of Science (M.Sc)** in **Human Physiology (Gr. A)** with specialization in **Imunology, Microbiology** and **Tissue culture** from Tripura University 2015
- **Bachelor of Science (B.Sc)** with major in **Human Physiology (1st class)** from Tripura University in 2013

Training Courses:

1. **Training program on biological methods.** Duration: 6 Months (1st October 2014 to 31st March 2015). Sponsored by: Department of Biotechnology, Government of India.
2. Research scholar’s training programme. Duration: 7 Days (28th April to 04th May 2017). Organized by: Faculty Development Centre, Tripura University (Under PMMMNMTT Scheme).

Articles published:

1. **Nath, P.**, Modak, S., Aktar, T., Maiti, S., Ghosh, A., Singh, R., Debnath, M., Saha, B., and Maiti, D. (2023). Olive leaves extract alleviates inflammation and modifies the intrinsic apoptotic signal in the, leukemic bone marrow. *Frontiers in Immunology*, 13, 1054186. <https://doi.org/10.3389/fimmu.2022.1054186>
2. **Nath, P.**, Majumder, D., Debnath, R., Debnath, M., Singh Sekhawat, S., and Maiti, D. (2022). Immunotherapeutic potential of ethanolic olive leaves extract (EOLE) and IL-28B combination therapy in ENU induced animal model of leukemia. *Cytokine*, 156, 155913. <https://doi.org/10.1016/j.cyto.2022.155913>

3. **Nath, P.**, and Maiti, D. (2022). A review of the mutagenic potential of N-ethyl-N-nitrosourea (ENU) to induce hematological malignancies. *Journal of biochemical and molecular toxicology*, 36(7), e23067. <https://doi.org/10.1002/jbt.23067>
4. **Nath, P.**, Modak, S., Aktar, T., and Maiti, D. (2022). Effects of N Ethyl N' nitrosourea in mice brain in time fashion: Effect of ENU in brain. *Indian Journal of Physiology and Allied Sciences*, 74(1). <https://doi.org/10.55184/ijpas.v74i1.34>
5. Majumder, D., Debnath, R., **Nath, P.**, Libin Kumar, K. V., Debnath, M., Tribedi, P., and Maiti, D. (2021). Bromelain and Olea europaea (L.) leaf extract mediated alleviation of benzo(a)pyrene induced lung cancer through Nrf2 and NFκB pathway. *Environmental science and pollution research international*, 28(34), 47306–47326. <https://doi.org/10.1007/s11356-021-13803-y>
6. Bhattacharjee, M., Boruah, S.R., Purkayastha, R.N.D., Ganguly, R., Maiti, D., Franconetti, A., Frontera, A., Kirillov, A.M., Chowdhury, S., Roy, S., **Nath, P.** (2020). Synthesis, Characterization, DNA binding ability, in vitro cytotoxicity, electrochemical properties and theoretical studies of copper (II) carboxylate complexes. *Inorganica chimica Acta*, 518, 120235. <https://doi.org/10.1016/i.ica.2020.120235>
7. Majumder, D., **Nath, P.**, Debnath, R., & Maiti, D. (2021). Understanding the complicated relationship between antioxidants and carcinogenesis. *Journal of biochemical and molecular toxicology*, 35(2), e22643. <https://doi.org/10.1002/jbt.22643>
8. Adhikari, S., Bhattacharjee, T., **Nath, P.**, Das, A., Jasinski, J.P., Butcher, R.J., Maiti, D. (2020). Bimetallic and Trimetallic Cd(II) and Hg(II) Mixed-Ligand Complexes with 1,1-dicyanoethylene-2,2-dithiolate and Polyamines: Synthesis, Crystal structure, Hirshfeld Surface analysis, and Antimicrobial study. *Inorganica Chimica Acta*, 512(1), 119877. <https://doi.org/10.1016/j.ica.2020.119877>
9. Dey, P.C., **Nath, P.**, Maiti, D., Das, R. (2020). Antibacterial activity of MPA-capped CdTe and Ag-doped CdTe nanocrystals: Showing different activity against gram-positive and gram-negative bacteria. *Chemical Papers*, 74(10), 3409-3421. <https://doi.org/10.1007/s11696-020-01170-w>
10. Debnath, R., Majumder, D., **Nath, P.**, Ghosh, D., & Maiti, D. (2020). Bromelain plus peroxidase reduces non-Hodgkin lymphoma progression in vivo via up-regulation of antioxidant enzymes and modulating apoptotic protein expression. *Nutrition and cancer*, 72(7), 1200–1210. <https://doi.org/10.1080/01635581.2019.1670217>

11. Majumder, D., Debnath, M., Kumar, K.V.L., **Nath, P.**, Debnath, R., Sarkar, C., Prasad, G.B.K.S., Verma, Y.K., Maiti, D. (2019). Metabolic profiling and investigations on crude extract of *Olea europaea* L. leaves as a potential therapeutic agent against skin cancer. *Journal of Functional Foods*, 58, 266–274.
<https://doi.org/10.1016/j.jff.2019.05.005>

Book Chapter:

1. **Nath, P.**, Datta, A., Adhikari, S. (2022). Recent Advances of Metal-Based Anticancer Agents and Their In Vivo Potential Against Various Types of Malignancies. In S. Pathak,

A. Banerjee, A. Bisgin (Eds.). *Handbook of Animal Models and its Uses in Cancer Research* (pp.1-28). Singapore: Springer. <https://doi.org/10.1007/978-981-19-1282-5>

2. **Nath. P.**, Bhattacharjee, M., Dutta, A., Adhikari, S. (2021). Cd (II) and Hg (II) metal complexes biological activity: A future perspective. In A. Guha (Ed.), *Biological sciences: Impacts on modern civilization, current and future challenges*. New Delhi: New Delhi publishers.

Conference Paper:

1. **Nath P**, Bhatteerjee B, Maiti D. 2015. In-vitro anticancer and antimicrobial activity of methanolic crude extract of *Caesalpinia mimosoides* Lamk [Conference Presentation]. National seminar on “Biodiversity for sustainable development”, 25th- 26th May, Tripura Biodiversity Board and Department of Botany, Tripura University, Tripura, India.
2. **Nath P**, Majuder D, Debnath R, Maiti D. 2018. In-vitro anti-leukemic activity of the ethanolic olive leaves extract (EOLE) [Seminar presentation]. National seminar on reaching the unreached through science and technology- The Indian Science Congress Association, 10-11 April, India.
3. **Nath P**, and Maiti D. 2021. Olive polyphenols alleviate leukemia progression in ENU induced mouse model of leukemia [Conference presentation]. EUROLEUK 2021, The second virtual congress on controversies in leukemias, 28-29th October, Italy.

4. **Nath P**, Modak S, Aktar T, Maiti D. 2022. Immunological response of ethanolic olive leaf extract (EOLE) and murine recombinant IL-28B combined treatment in ENU induced mouse model of leukemia [Conference presentation]. The XXXIInd annual conference of The Physiological Society of India, 14-16 March, India.
5. Nath P, Maiti D. 2023. The olive leaves extract (EOLE) acts synergistically with IL-28B in enhancing the functional activity of effector immune cells [Conference presentation]. The 14th Science Communicator's Meet, 108th Session of Indian Science Congress Association, 3-7 January, India.

Workshop:

1. Workshop on “ Capacity building in grant writing skills and effective management of Intellectual Property Rights (IPR) in Biotechnology by universities and research institutions in the North- East Region”. Duration: 23rd -25th February, 2017. Sponsored by: Department of Biotechnology, Government of India. Organized by: Biotech Consortium India Limited (BCIL), New Delhi.
2. Workshop on “Cellular techniques in biological research”. Duration: 20th -22nd March 2017. Sponsored by: Department of Biotechnology, Government of India.
3. Workshop on “Molecular trends in biological research”. Duration: 27th-29th March, 2017. Sponsored by: Department of Biotechnology, Government of India.
4. Workshop on “Chromatographic Techniques”. Duration: 7th -9th March, 2018. Sponsored by: Department of Biotechnology, Government of India
5. Workshop on “Purification, Assay and Kinetics of Enzymes”. Duration: 26th April- 5th May, 2018. Organized by: Department of Zoology, Tripura University.
6. Workshop on “Protein isolation, separation, purification and characterization”. Duration: 25th February – 3rd March, 2019. Sponsored by: Department of Biotechnology, Government of India.
7. Workshop on “Animal ethics and biomedical research”. Duration: 18th -20th March, 2019. Sponsored by: Department of Biotechnology, Government of India.

8. Workshop on “Microbiology and microbial genomics” Duration: 25th-29th March, 2019.
Sponsored by: Department of Biotechnology, Government of India.

Laboratory and Experimental Skills:

Bacteria culturing, testing drugs for antibacterial activity; mammalian cell culturing (primary culture and cell line), testing drugs for *in-vitro* anti-cancer activity; handling laboratory mice and doing *in-vivo* experiments; protein isolation from cultured cell and fresh tissues, protein quantification, SDS-polyacrylamide gel electrophoresis, western blotting, quantification of protein in a sample by enzyme linked immunosorbent assay (ELISA); isolation of genomic DNA and RNA from cultured cells and fresh tissues, quantification of DNA and RNA, cDNA synthesis, doing PCR and RT-PCR; tissue processing, section cutting in cryotome and microtome, and staining for histo-pathological studies; immunohistochemistry.

Languages Proficiency and communicative skills: Efficient fluency and good communication skills acquired in Hindi and English and also good proficiency in Bengali (mother tongue).

Carrier Goals: Academic and research studies in the field of oncology. I am interested in studying the cancer microenvironment and its role in metastasis of cancer cells, inhibition of apoptosis in cancer cells and immune suppression.

Personal Information:

Father’s Name: Sri. Paresh Nath

Mother’s Name: Smt. Jaya Nath

Residential Address: Chandrapur, Dharmanagar, North-Tripura, Tripura, India, 799251.

Date of Birth: 21-10-1992.

Gender: Male

Nationality: Indian

Religion: Hinduism

Category: OBC

Mailing Address: C/O Sri. Paresh Nath, Chandrapur, Dharmanagar, North-Tripura, Tripura, India, 799251.

Declaration: I hereby declare that all the information furnished above is true, correct and complete to the best of my knowledge and belief.

Priyatosh Nath

Signature