

Name: Dr. Sumana Dutta



Contact: 9679039241

Qualification: MSc (CSIR-NET), PhD

Designation: Assistant Professor in Zoology

Teaching Experience (in years): UG: 10 years 7 months, PG-2 years

Research Experience (in years): 10 years

Date of Joining Present Institution: 23.11.2015

Institutions/Companies Previously Served:

Name of Institution/Company	Designation	Tenure	
		From (DD-MM-YYYY)	To (DD-MM-YYYY)
NA			

Specialization/Research Interest: Evaluation of hypoglycemic, antioxidant and antimicrobial potentials of phytochemicals.

Awards & Recognitions

1. Won the Bhakti-Gouri Memorial Bronze Medal having secured highest percentage of marks in M.Sc. Examination, 2010 in zoology.
2. University Gold Medal from the University of Burdwan for 1st class 1st position in M.Sc examination in the year 2010.
3. Got DST-INSPIRE Fellowship in the year 2011.
4. Best Oral presentation in National Seminar on Advent of Biotechnology in Life Processes on Evaluation of hypoglycemic potentials of leaf and bark extracts of *Manilkara hexandra* (Roxb.) Dubard”, organized by the Department of Biotechnology, University of Burdwan, 22-23rd March, 2018.
5. Awarded 3rd position in the paper (oral) presentation in 4th regional science & technology congress (Western region) 2019 on “Aqueous extract from *Manilkara hexandra* leaves reduced serum glucose level in *Labeo rohita* fingerlings”, Organized by The University and Department of Science & technology and Biotechnology (DSTBT), Government of West Bengal, 9th-10th December, 2019.
6. Won Outstanding Paper in the 5th Regional Science & technology congress, 2022-23 on “Effect of the 1-butanol fraction (BUF) of *M. hexandra* leaf on the FBGL of normal mice”, held at the University of Burdwan 06-07, 2023.
7. Awarded the Outstanding Paper at the 30th West Bengal State Science & Technology Congress (28th February/1st March 2023), Science City, Kolkata, for the paper titled 'Effect of the 1-Butanol Fraction (BUF) of *M. hexandra* Leaf on the FBGL of Normal Mice”.

Publications

1. **Dutta, S., Ray, S., 2014.** Evaluation of antioxidant potentials of leaf aqueous and methanolic extracts of *Calophyllum inophyllum* in relation to total phenol and flavonoid contents. International Journal of pharma and bio sciences. 5, 441–450.
2. Ray, S., Kundu, L. M., Goswami, S., Roy, G.C., Chatterjee, S., **Dutta, S., Chaudhuri, A., Chakrabarti, C. S., 2013.** Metaphase arrest and delay in cell cycle kinetics of root apical meristems and mouse bone marrow cells treated with leaf aqueous extracts of *Clerodendrum viscosum* Vent. Cell proliferation, 46,109-117. (Impact Factor: 5.753) <https://doi.org/10.1111/cpr.12011>
3. Chaudhuri, A., Kundu, L.M., **Dutta, S., Chatterjee, S., Goswami, S., Roy, G.C., Ray, S., 2015.** Allelopathic effects of aerial parts aqueous extract of *Ampelocissus latifolia* (Roxb.) Planch. in apical meristem cells. Asian Journal of Plant Science and Research, 5(3), 11-16.
4. **Dutta, S., Ray, S., 2015.** Evaluation of in vitro free radical scavenging activity of leaf extract fractions of *Manilkara hexandra* (Roxb) Dubard in relation to total phenolic contents. International Journal of Pharmacy and Pharmaceutical Sciences. 7(10), 296–301.
5. **Dutta, S., Ray, S., 2020.** Comparative assessment of total phenolic content and in vitro antioxidant activities of bark and leaf methanolic extracts of *Manilkara hexandra* (Roxb.) Dubard. Journal of King Saud University – Science, 32, 643–647. (Impact Factor: 3.3) <https://doi.org/10.1016/j.jksus.2018.09.015>
6. Ghosh, M., Mandal, S., **Dutta, S., Paladhi, A., Ray, S., Hira, SK., Pradhan, S.K. 2021.** Synthesis of drug conjugated magnetic nanocomposite with enhanced hypoglycemic effects. Materials Science and Engineering: C, 120, 111697. (Impact Factor: 8.457) <https://doi.org/10.1016/j.msec.2020.111697>
7. Roy, G C., Samsad, G., Chatterjee, R., **Dutta, S. # 2025.** Polycystic Ovarian Syndrome (PCOS): A Growing Health Concern. American Journal of Bioscience and Clinical Integrit, 2(9). ISSN: 2997-7347
8. Kanjilal, J C., **Dutta, S., Ghosh, J., Chaudhuri, A., **, Ray, S*. 2026.** Clinical and Demographic Insights of Gestational Diabetes Mellitus (GDM): A Comparative Study. International Journal of Life Sciences, Biotechnology and Pharma Research, 15(1), 471-475. doi: 10.69605/ijlbpr_15.1.2026.78
9. Ghosh, M., Pradhan, S., Dasgupta, S., Das, P., **Dutta, S., Maity, S., Sau, K., Ray, S., Pradhan, SK. 2026.** Enhanced Hypoglycemic Activity of Metformin with the reduction of the Particle Size. Biotechnology and Applied Biochemistry. 0:1–11. <https://doi.org/10.1002/bab.70181>. (Impact Factor: 2.5)

Guidance of M.Sc. Projects

1. Shilpa Nayek (2020, Netaji open Subhash University), Review work on Malaria Vector Control Strategies: Advantages & Limitations, (Guide: Dr. Sumana Dutta)
2. Manisha Khamaru (2020, Netaji open Subhash University), Review work on Glucoregulatory Hormones & Therapeutic Approaches In Diabetes, (Guide: Dr. Sumana Dutta)
3. Gulafshan Samsad (2023, Netaji open Subhash University), Review work on Polycystic Ovarian Syndrome (PCOS): A Growing Health Concern (Guide: Dr. Sumana Dutta)

Invited Lectures

Delivered a lecture on "Hybridoma Technology" on 4th June 2021 as part of the Faculty Exchange Programme (10 May–19 June 2021), organized by the Department of Zoology, Bejoy Narayan Mahavidyalaya, Itachuna, Hooghly–712147, West Bengal.

Paper Presentation in seminar/conference/symposium/workshop/discussion meeting

1. Oral Presentation on “Effect of the 1-butanol fraction (BUF) of *M. hexandra* leaf on the FBGL of normal mice” in the 5th Regional Science & technology congress, 2022-23 held at the University of Burdwan 06-07, 2023.
2. Oral Presentation on “Effect of the 1-butanol fraction (BUF) of *M. hexandra* leaf on the FBGL of normal mice” in the 30th West Bengal State Science & Technology Congress (28th February/1st March 2023), Science City, Kolkata.
3. Presented a poster titled “Amelioration of Bleomycin-Induced Oxidative Stress and cytotoxic effects in *Allium cepa* L. root tip cells using the methanolic extract fraction of *Manilkara hexandra* (Roxb.) Dubard” at ZOOSPECTRA, a two-day International Conference organized by the Department of Zoology, The University of Calcutta, on 5–6 December 2022.
4. Oral Presentation on “Aqueous extract from *Manilkara hexandra* leaves reduced serum glucose level in *Labeo rohita* fingerlings (Sumana Dutta)” in the 27th West Bengal State Science & Technology Congress held on Feb 28-29, 2020 organized by Department of Science & technology and Biotechnolgy, Government of West Bengal
5. Oral Presentation on “Aqueous extract from *Manilkara hexandra* leaves reduced serum glucose level in *Labeo rohita* fingerlings (Sumana Dutta)” in the 4th regional science & technology congress (Western region) held on Dec 9-10, 2019 Organized by The University and Department of Science & technology and Biotechnology (DSTBT), Government of West Bengal
6. Oral Presentation on “Evaluation of hypoglycemic potentials of *Manilkara hexandra* (Roxb.) Dubard (Sumana Dutta)” in the 2nd International Conference on Frontiers in Biological, Environmental and Medical Sciences held on March 7-9, 2019 Organized by The University of Burdwan, W.B. India Under Purse Phase 2 Programme
7. Oral Presentation on “Evaluation of Free radical scavenging and Hypoglycemic Potentials of *Manilkara hexandra* (Roxb.) Dubard (Sumana Dutta)” in the Golden Jubilee International Conference on Trends in Zoology held on Jan 3-4, 2019 Organized by The Department of Zoology, The University of Burdwan, Golapbag, 713104, West Bengal
8. Oral Presentation on “Total phenolics and in vitro free radical scavenging potentials of leaf and bark methanolic extracts of *Manilkara hexandra* (Roxb.) Dubard (Sumana Dutta)” in the International Conference on Frontiers in Biological, Environmental and Medical Sciences held on March 22-23, 2018 Organized by DST-PURSE (Phase 2) Govt of India (The University of Burdwan)
9. Oral Presentation on “Evaluation of hypoglycemic potentials of leaf and bark extracts of *Manilkara hexandra* (Roxb.) Dubard (Sumana Dutta)” in the National Seminar on Advent of Biotechnology in Life Processes held on March 08-10, 2018 Organized by Department of Biotechnology, The University of Burdwan, Golapbag, 713104, West Bengal
10. Poster Presentation on “ In vitro free radical scavenging potentials in relation to total phenolics of leaf and bark aqueous and methanolic extracts of *Manilkara hexandra* (Roxb.) Dubard (Sumana Dutta)” in the National Conference on Advances of Life Sciences and Radiation Biology held on Feb 17-18, 2017 Organized by Department of Zoology, The University of Burdwan, Golapbag, 713104, West Bengal

Participation in faculty development programmes

- 1st Online Summer School (equivalent to Refresher Course) organized by UGC-HRDC Gujarat University for 14days (19/10/2020 – 1/11/ 2020)
- Online Faculty Induction Programme (FIP-02) organized by UGC-HRDC North Bengal University for 30 days (25/11/2020-24/12/2020)
- DBT Star College Scheme sponsored Faculty development Programme, organized by Durgapur Government College (08/12/ 2023 to 14/12/ 2023)
- Refresher Course organized by UGC-MMTTC, Gauhati University, Guwahati, Assam (24.02.2025 to 12.03.2025)

Organization of events (Durgapur Government College)

1. Workshop on "Basic Techniques in Molecular Biology" organized by the Department of Zoology, Durgapur Government College under the DBT STAR College Scheme, held from 11th to 18th September 2024. (Organizing Secretary Dr. Sumana Dutta, departmental coordinator of DBT STAR COLLEGE SCHEME)
2. “Workshop on Biological and Chemical Waste Disposal” jointly organized by Department of Botany, Chemistry and Zoology on 12-02-2025 under the DBT STAR College Scheme (Organizing Secretary Dr. Sumana Dutta, departmental coordinator of DBT STAR COLLEGE SCHEME)
3. Three Day Workshop on "R Workshop with Statistical Methodology for Biological Sciences" conducted by Department of Botany, Mathematics and Zoology from November 20-22, 2024 under the DBT STAR COLLEGE SCHEME (Organizing Secretary Dr. Sumana Dutta, departmental coordinator of DBT STAR COLLEGE SCHEME)
4. An Invited Lecture on "Technological Advances on the Impact of Climate Change on Fisheries and Aquatic Genetic Resources: Resilience and Adaptation Strategies" was delivered by Dr. Uttam Kumar Sarkar, Former Director, ICAR–National Bureau of Fish Genetic Resources, Lucknow, on 21 May 2025 under the DBT STAR College Scheme, organized by the Department of Zoology, Durgapur Government College. (Organizing Secretary Dr. Sumana Dutta, departmental coordinator of DBT STAR COLLEGE SCHEME)