

Biodata of Prof. Ansuman Chattopadhyay

- 1. Name and full correspondence address:** Prof. Ansuman Chattopadhyay
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Santiniketan, 731235
- 2. Email and contact number(s):** chansuman1@gmail.com
9547997026
- 3. Institution:** Visva-Bharati.
- 4. Date of Birth:** 16/12/1968
- 5. Gender:** M
- 6. Category:** Gen
- 7. Whether differently abled:** No
- 8. Academic Qualification (Undergraduate Onwards)**

Sl No.	Institution Place	Degree Awarded	Year	Field of Study
1.	University of Calcutta Kolkata	B. Sc. (Hons.)	1989	Zoology
2.	Univ. of Calcutta Kolkata	M.Sc.	1991	Zoology
3.	North Eastern Hill Univ. Shillong; Meghalaya	M. Phil (C.W.)	1993	Zoology
4.	North Eastern Hill Univ. Shillong; Meghalaya	Ph.D.	1997	Genetics

9. Ph.D thesis title: Relationship between cellular radio and chemosensitivity and endogenous glutathione in mammalian cells with respect to cytogenetical end points.

Guide's Name: Prof. Anupam Chatterjee.

University: North Eastern Hill University; Shillong-793022

Year of Award: 1997

10. Work experience (in chronological order).

Sl No.	Institution Place	Position	From (Date)	To (date)
1.	Visva-Bharati University	Professor	17.12 2011	continuing
2.	Visva-Bharati University	Associate Professor	17.12.2005	16.12.2011
3.	North Eastern Hill University	Lecturer (Senior Grade)	10.4.2002	14.12.2005
4.	St. Edmunds College	Lecturer	15.4.1996	9.4.2002

11. Professional Recognition/ Award/ Prize/ Certificate, Fellowship received by the applicant.

Honors/Awards:

- a. National Scholarship in B.Sc Examination, 1989.
- b. Junior Research Fellowship (CSIR), 1992-1993.
- c. Senior Research Fellowship (CSIR), 1994-1995.
- d. Visiting Fellowship (HBCSE, TIFR), 2004.
- e. UICC Fellowship, Institute of Pathology, Munich, Germany, January – February, 2005

12. Associate Editor of the journal “**The Nucleus**” Springer.

13. Publications

Books: 02; Book Chapters: 03; Research Papers: 70

14. Accomplishments as a mentor

Number of students awarded Ph.D. degree: 10

Number of students submitted Ph.D. thesis: 00

Number of students registered for Ph.D. degree: 08

Number of Post-doctoral fellows: 00

15. Reviewer of following Journals

1. PLOS ONE
2. Chemosphere
3. Biochimie
4. Biological Trace Element Research
5. Bulletin of Environmental Contamination and Toxicology
6. Chemico-Biological Interaction
7. Fluoride
8. Journal of Applied Oral Science
9. Cell Biology Education
10. Proceeding of National Academy of Science (Allahabad)
11. Indian Journal of Experimental Biology
12. Pharmacologia
13. Journal of Clinical and Diagnostic Research
14. Journal of Water Resource and Protection
15. International Blood Research and Reviews
16. Human and Experimental Toxicology
17. British Biotechnology Journal
18. Ecotoxicology and Environmental Safety

16. Areas of Research

- Toxicology of fluoride, arsenic, chromium and nanoparticles (organ and genotoxicity; molecular mechanisms); Nrf2-Keap1 signaling pathway, changes in metal profiling; epigenetic regulation of DNA repair genes.
- Screening of anticancer properties of fungal metabolites and nanoparticles. Investigation of detailed molecular mechanism responsible for cell death.

16. Publications (*List of papers published in SCI Journals, in year wise descending order*).

1. Islam, S., Kamila, S., **Chattopadhyay, A.** (2022 accepted). Toxic and carcinogenic effects of hexavalent chromium in mammalian cells in vivo and in vitro: a recent update. *Journal of Environmental Science and Health, Part C*.
2. Taniya, S., Khanra, S., Dey Bhowmik, A., Bandyopadhyay, A., Chatterjee, S., **Chattopadhyay, A.**, & Debasis Das (2022 accepted). A new Fe(III) complex derived from cyclohexane based imine derivative: Studies on H_2PO_4^- recognition and anti-cancer activity against MCF7 and MDA-MB-231 human breast cancer cells. *ChemistrySelect*.
3. Mondal, P., Mukhopadhyay, D., Shaw, P., Dey Bhowmik, A., & **Chattopadhyay, A.** (2022). Environmentally relevant fluoride alters nuclear integrity in erythrocytes and induces DNA damage in hepatocytes of zebrafish. *The Nucleus*, 1-9.
4. Nag, S., Mondal, A., Hirani H., Dey Bhowmik, A., **Chattopadhyay, A.**, & Banerjee, P. (2022). A dual-responsive bio-amicable fluorophore for trace level recognition of Zn^{2+} and Cd^{2+} : Prefatory diagnosis of neoplastic disease from urine and ALS from saliva. *Journal of Photochemistry & Photobiology, A: Chemistry*, 433, 114133.
5. Mandal, S., Dey Bhowmik, A., Mukhuty, A., Kundu, S., Truong, K. N., Rissanen, K., **Chattopadhyay, A.**, & Sahoo, P. (2022). Reliable fluorescence technique to detect the antibiotic colistin, a possible environmental threat due to its overuse. *Scientific Reports*, 12, 1-8.
6. Saha, S., Kamila, S., **Chattopadhyay, A.**, & Sahoo, P. (2022). Easy and rapid chemosensing method for identification of accumulated Tin in algae: A solemn strives to protect marine eco-system. *New Journal of Chemistry*, 46, 4233-4238.
7. Shaw, P., Mondal, P., Dey Bhowmik, A., Bandyopadhyay, A., Chakraborty, A., Sudarshan, M., & **Chattopadhyay, A.** (2021). Environmentally relevant hexavalent chromium disrupts elemental homeostasis and induces apoptosis in zebrafish liver. *Bulletin of Environmental Contamination and Toxicology*, 108, 716-724.
8. Banerjee, S., Islam, S., **Chattopadhyay, A.**, Sen, A., & Kar, P. (2021). Synthesis of silver nanoparticles using underutilized fruit *Baccaurea ramiflora* (Latka) juice and its biological and cytotoxic efficacy against MCF-7 and MDA-MB 231 cancer cell lines. *South African Journal of Botany*, 145, 228-235.
9. Saha, S., Das, S., Sarkar, O., **Chattopadhyay, A.**, Rissanen, K., & Sahoo, P. (2021). Introduction of a luminescent sensor for tracking trace levels of hydrazine in insect pollinated cropland flowers. *New Journal of Chemistry*, 45, 17095-17100.
10. Saha, S., Ghosh, P., Mondal, P., **Chattopadhyay, A.**, & Sahoo, P. (2021). Involvement of a unique chemodosimeter in the selective estimation of noxious cyanide in common water hyacinth (*Eichhornia crassipes*): an environmental refinement. *Environmental Science: Processes & Impacts*, 23, 1308-1315.
11. Bandyopadhyay, A., Garai, S., Banerjee, P. P., Bhattacharya, S., & **Chattopadhyay, A.** (2021). Bacopasaponins with cytotoxic activity against human breast cancer cells in vitro. *Molecular Biology Reports*, 48, 2497-2505.
12. Mondal, P., Shaw, P., Dey Bhowmik, A., Bandyopadhyay, A., Sudarshan, M., Chakraborty, A., & **Chattopadhyay, A.** (2020). Combined effect of arsenic and fluoride at environmentally relevant concentrations in zebrafish (*Danio rerio*) brain: Alterations in stress marker and apoptotic gene expression. *Chemosphere*, 128678.
13. Dey Bhowmik, A., Shaw, P., Mondal, P., Chakraborty, A., Sudarshan, M., & **Chattopadhyay, A.** (2020). Calcium and Vitamin D Supplementation Effectively Alleviates Dental and Skeletal Fluorosis and Retain Elemental Homeostasis in Mice. *Biological Trace Element Research*, 1-10.
14. Shaw, P., Sen, A., Mondal, P., Dey Bhowmik, A., Rath, J., & **Chattopadhyay, A.** (2020). Shinorine ameliorates chromium induced toxicity in zebrafish hepatocytes

- through the facultative activation of Nrf2-Keap1-ARE pathway. *Aquatic Toxicology*, 228, 105622.
15. Bandyopadhyay, A., Roy, B., Shaw, P., Mondal, P., Mondal, M. K., Chowdhury, P., ... & **Chattopadhyay, A.** (2020). Chitosan-gold nanoparticles trigger apoptosis in human breast cancer cells in vitro. *The Nucleus*, 1-14.
 16. Dey Bhowmik, A., Podder, S., Mondal, P., Shaw, P., Bandyopadhyay, A., Das, A., ... & **Chattopadhyay, A.** (2020). Chronic exposure to environmentally relevant concentration of fluoride alters Ogg1 and Rad51 expressions in mice: Involvement of epigenetic regulation. *Ecotoxicology and Environmental Safety*, 202, 110962.
 17. Ghosh, A., Mandal, S., Das, S., Shaw, P., **Chattopadhyay, A.**, & Sahoo, P. (2020). Insights into the phenomenon of acquisition and accumulation of Fe³⁺ in *Hygrophila spinosa* through fluorimetry and fluorescence images. *Tetrahedron Letters*, 61(9), 151520.
 18. Mondal, P., & **Chattopadhyay, A.** (2020). Environmental exposure of arsenic and fluoride and their combined toxicity: a recent update. *Journal of Applied Toxicology*, 40(5), 552-566.
 19. Bandyopadhyay, A., Roy, B., Shaw, P., Mondal, P., Mondal, M. K., Chowdhury, P., ... & **Chattopadhyay, A.** (2019). Cytotoxic effect of green synthesized silver nanoparticles in MCF7 and MDA-MB-231 human breast cancer cells in vitro. *The Nucleus*, 1-12.
 20. Shaw, P., Mondal, P., Bandyopadhyay, A., & **Chattopadhyay, A.** (2020). Environmentally relevant concentration of chromium induces nuclear deformities in erythrocytes and alters the expression of stress-responsive and apoptotic genes in brain of adult zebrafish. *Science of The Total Environment*, 703, 135622.
 21. Shaw, P., & **Chattopadhyay, A.** (2020). Nrf2–ARE signaling in cellular protection: Mechanism of action and the regulatory mechanisms. *Journal of Cellular Physiology*, 235(4), 3119-3130.
 22. Dey Bhowmik, A., Bandyopadhyay, A., & **Chattopadhyay, A.** (2019). Cytotoxic and mutagenic effects of green silver nanoparticles in cancer and normal cells: a brief review. *The Nucleus*, 62(3), 277-285.
 23. Banerjee, P. P., Bandyopadhyay, A., Mondal, P., Mondal, M. K., Chowdhury, P., Chakraborty, A., ... & **Chattopadhyay, A.** (2019). Cytotoxic effect of graphene oxide-functionalized gold nanoparticles in human breast cancer cell lines. *The Nucleus*, 62(3), 243-250.
 24. Mondal, P., Shaw, P., Bandyopadhyay, A., Dey Bhowmik, A., Chakraborty, A., Sudarshan, M., & **Chattopadhyay, A.** (2019). Mixture effect of arsenic and fluoride at environmentally relevant concentrations in zebrafish (*Danio rerio*) liver: expression pattern of Nrf2 and related xenobiotic metabolizing enzymes. *Aquatic Toxicology*, <https://doi.org/10.1016/j.aquatox.2019.06.002>
 25. Dey Bhowmik, A., & **Chattopadhyay, A.** (2019). A review on fluoride induced organotoxicity and genotoxicity in mammals and zebrafish. *The Nucleus*, 1-9.
 26. Dey Bhowmik, A., Shaw, P., Mondal, P., Munshi, C., Chatterjee, S., Bhattacharya, S., & **Chattopadhyay, A.** (2019). Incidence of fluorosis and urinary fluoride concentration are not always positively correlated with drinking water fluoride level. *Current Science*, 116(9):1551-54. doi: 10.18520/cs/v116/i9/1551-1554
 27. Shaw, P., Mondal, P., Bandyopadhyay, A., & **Chattopadhyay, A.** (2018). Environmentally relevant concentration of chromium activates Nrf2 and alters transcription of related XME genes in liver of zebrafish. *Chemosphere*, 214, 35-46.

28. Jha, B., Rao, M., **Chattopadhyay, A.**, Bandyopadhyay, A., Prasad, K., & Jha, A. K. (2018). Punica granatum fabricated platinum nanoparticles: a therapeutic pill for breast cancer. In *AIP Conference Proceedings* (Vol. 1953, No. 1, p. 030087). AIP Publishing.
29. Garai, S., Ghosh, R., Bandyopadhyay, P. P., Mandal, N. C., & **Chattopadhyay, A.** (2018). Anti-microbial and Anti-cancer Properties of Echinocystic Acid Extracted from *Luffa cylindrica*. *Journal of Food Processing & Technology*, 9(2), 717.
30. Banerjee, P. P., Bandyopadhyay, A., Harsha, S. N., Policegoudra, R. S., Bhattacharya, S., Karak, N., & **Chattopadhyay, A.** (2017). Mentha arvensis (Linn.)-mediated green silver nanoparticles trigger caspase 9-dependent cell death in MCF7 and MDA-MB-231 cells. *Breast Cancer: Targets and Therapy*, 9, 265.
31. Bandyopadhyay, A., Banerjee, P. P., Shaw, P., Mondal, M. K., Das, V. K., Chowdhury, P., ... & **Chattopadhyay, A.** (2017). Cytotoxic and Mutagenic Effects of Thuja occidentalis Mediated Silver Nanoparticles on Human Peripheral Blood Lymphocytes. *Materials Focus*, 6(3), 290-296.
32. Sarkar, S., Mukherjee, S., **Chattopadhyay, A.**, & Bhattacharya, S. (2017). Differential modulation of cellular antioxidant status in zebrafish liver and kidney exposed to low dose arsenic trioxide. *Ecotoxicology and environmental safety*, 135, 173-182.
33. Adhikari, S., Sahana, A., Kumari, B., Ganguly, D., Das, S., Banerjee, P. P., **Chattopadhyay, A.** & Brandão, P. (2016). Molecular diversity in several pyridyl based Cu (ii) complexes: biophysical interaction and redox triggered fluorescence switch. *New Journal of Chemistry*, 40(12), 10378-10388.
34. Adhikari, S., Ghosh, A., Mandal, S., Guria, S., Banerjee, P. P., **Chattopadhyay, A.**, & Das, D. (2016). Colorimetric and fluorescence probe for the detection of nano-molar lysine in aqueous medium. *Organic & biomolecular chemistry*, 14(45), 10688-10694.
35. Mondal, M. K., Banerjee, P. P., Saha, S. K., Chowdhury, P., Sengupta, A., Bandyopadhyay, A., ... & **Chattopadhyay, A.** (2016). Selective reduction technique (SRT): A robust method to synthesize bioactive Ag/Au doped Graphene Oxide. *Materials & Design*, 102, 186-195.
36. Banerjee, G., Sengupta, A., Roy, T., Banerjee, P. P., **Chattopadhyay, A.**, & Ray, A. K. (2016). Isolation and characterization of fluoride resistant bacterial strains from fluoride endemic areas of West Bengal, India: assessment of their fluoride absorption efficiency. *Fluoride*, 49(4), 429.
37. Barua, S., Banerjee, P. P., Sadhu, A., Sengupta, A., Chatterjee, S., Sarkar, S., **Chattopadhyay, A.** & Karak, N. (2016). Silver nanoparticle as antibacterial and anticancer materials against human breast, cervical and oral cancer cells. *Journal of Nanoscience & Nanotechnology*, 16, 1-9.
38. Kumari, B., Lohar, S., Ghosh, M., Ta, S., Sengupta, A., Banerjee, P. P., **Chattopadhyay, A.** & Das, D. (2016). Structurally Characterized Zn 2+ Selective Ratiometric Fluorescence Probe in 100% Water for HeLa Cell Imaging: Experimental and Computational Studies. *Journal of fluorescence*, 26(1), 87-103.
39. Nandi, S., Sahana, A., Mandal, S., Sengupta, A., **Chattopadhyay, A.**, Safin, D. A., ... & Das, D. (2015). Hydrazine selective dual signaling chemodosimetric probe in physiological conditions and its application in live cells. *Analytica chimica acta*, 893, 84-90.
40. Ghosh, A., Nandi, S., Sengupta, A., **Chattopadhyay, A.**, Lohar, S., & Das, D. (2015). Single crystal X-ray structurally characterized palladium (II) selective fluorescence and colorimetric indicator for human breast cancer cell imaging. *Inorganica Chimica Acta*, 436, 52-56.

41. Mukhopadhyay, D., Priya, P., & **Chattopadhyay, A.** (2015). Sodium fluoride affects zebrafish behaviour and alters mRNA expressions of biomarker genes in the brain: Role of Nrf2/Keap1. *Environmental toxicology and pharmacology*, 40(2), 352-359..
42. Ghosh, A., Sengupta, A., **Chattopadhyay, A.**, & Das, D. (2015). Lysine triggered ratiometric conversion of dynamic to static excimer of a pyrene derivative: aggregation-induced emission, nanomolar detection and human breast cancer cell (MCF7) imaging. *Chemical Communications*, 51(57), 11455-11458.
43. Lohar, S., Safin, D. A., Sengupta, A., **Chattopadhyay, A.**, Matalobos, J. S., Babashkina, M. G., ... & Das, D. (2015). Ratiometric sensing of lysine through the formation of the pyrene excimer: experimental and computational studies. *Chemical Communications*, 51(40), 8536-8539
44. Srivastava, R., Bhattacharya, S., Chakraborty, A., & **Chattopadhyay, A.** (2015). Differential in vivo genotoxicity of arsenic trioxide in glutathione depleted mouse bone marrow cells: expressions of Nrf2/Keap1/P62. *Toxicology mechanisms and methods*, 25(3), 223-228.
45. Ghosh, A., Sengupta, A., **Chattopadhyay, A.**, & Das, D. (2015). A single probe for sensing both acetate and aluminum (III): visible region detection, red fluorescence and human breast cancer cell imaging. *RSC Advances*, 5(31), 24194-24199.
46. Kumari, B., Lohar, S., Adhikari, S., Sengupta, A., **Chattopadhyay, A.**, Brandão, P., ... & Das, D. (2015). Rhodamine derived colorimetric and fluorescence mercury (II) chemodosimeter for human breast cancer cell (MCF7) imaging. *RSC Advances*, 5(28), 21797-21802.
47. Mukhopadhyay, D., Srivastava, R., & **Chattopadhyay, A.** (2015). Sodium fluoride generates ROS and alters transcription of genes for xenobiotic metabolizing enzymes in adult zebrafish (*Danio rerio*) liver: expression pattern of Nrf2/Keap1 (INrf2). *Toxicology mechanisms and methods*, 25(5), 364-373
48. Sengupta, A., Mukherjee, S., Bhattacharya, S., Saha, S. K., & **Chattopadhyay, A.** (2014). Expression Pattern of Myogenic Regulatory Transcription Factor mRNAs in the Embryo and Adult *Labeo rohita* (Hamilton, 1822). *International Journal of Zoology*, 1-9
49. Lohar, S., Sengupta, A., **Chattopadhyay, A.**, Matalobos, J. S., & Das, D. (2014). Structurally Characterized Antipyrene-Based Dual Fluorescent Probe: Enhanced AlIII Selectivity of a Dinuclear ZnII Complex for Intracellular Sensing by a Displacement Approach. *European Journal of Inorganic Chemistry*, 2014(33), 5675-5682.
50. Adhikari, S., Ghosh, A., Mandal, S., Sengupta, A., **Chattopadhyay, A.**, Matalobos, J. S., ... & Das, D. (2014). Visible light excitable ON fluorescence and naked eye detection of Cu²⁺ via hydrolysis of rhodamine–thiophene conjugate: human breast cancer cell (MCF7) imaging studies. *Dalton Transactions*, 43(21), 7747-7751.
51. Sarkar, S., Mukherjee, S., **Chattopadhyay, A.**, & Bhattacharya, S. (2014). Low dose of arsenic trioxide triggers oxidative stress in zebrafish brain: expression of antioxidant genes. *Ecotoxicology and environmental safety*, 107, 1-8.
52. Mukhopadhyay, D., & **Chattopadhyay, A.** (2014). Induction of oxidative stress and related transcriptional effects of sodium fluoride in female zebrafish liver. *Bulletin of environmental contamination and toxicology*, 93(1), 64-70.
53. Chatterjee, S., Munshi, C., **Chattopadhyay, A.**, & Bhattacharya, S. (2013). Mercuric chloride effects on adult rat oval cells-induced apoptosis. *Toxicological & Environmental Chemistry*, 95(10), 1722-1738.
54. Nath, A., **Chattopadhyay, A.**, & Joshi, S. R. (2013). Biological activity of endophytic fungi of *Rauwolfia serpentina* Benth: an ethnomedicinal plant used in folk medicines in

Northeast India. *Proceedings of the National Academy of Sciences, India Section B: Biological Sciences*, 85(1), 233-240.

55. Chatterjee, S., Nandi, P., Mukherjee, S., **Chattopadhyay, A.**, & Bhattacharya, S. (2013). Regulation of autophagy in rat hepatocytes treated in vitro with low concentration of mercury. *Toxicological & Environmental Chemistry*, 95(3), 504-504.
56. Srivastava, R., Sengupta, A., Mukherjee, S., Chatterjee, S., Sudarshan, M., Chakraborty, A., ... & **Chattopadhyay, A.** (2013). In vivo effect of arsenic trioxide on Keap1-p62-Nrf2 signaling pathway in mouse liver: expression of antioxidant responsive element-driven genes related to glutathione metabolism. *International Scholarly Research Notices*.
57. Chatterjee, S., Banerjee, P. P., **Chattopadhyay, A.**, & Bhattacharya, S. (2013). Low concentration of HgCl₂ drives rat hepatocytes to autophagy/apoptosis/necroptosis in a time-dependent manner. *Toxicological & Environmental Chemistry*, 95(7), 1192-1207.
58. **Chattopadhyay, A.** (2012). Understanding of Mitosis and Meiosis in higher secondary students of Northeast India and the implications for genetics education. *Education*, 2(3), 41-47.
59. **Chattopadhyay, A.**, Podder, S., Agarwal, S., & Bhattacharya, S. (2011). Fluoride-induced histopathology and synthesis of stress protein in liver and kidney of mice. *Archives of toxicology*, 85(4), 327-335.
60. Podder, S., **Chattopadhyay, A.**, & Bhattacharya, S. (2011). Reduction in fluoride-induced genotoxicity in mouse bone marrow cells after substituting high fluoride-containing water with safe drinking water. *Journal of Applied Toxicology*, 31(7), 703-705.
61. Podder, S., **Chattopadhyay, A.**, Bhattacharya, S., Ray, M. R., & Chakraborty, A. (2011). Fluoride-induced genotoxicity in mouse bone marrow cells: effect of buthionine sulfoximine and N-acetyl-l-cysteine. *Journal of Applied Toxicology*, 31(7), 618-625.
62. Podder, S., **Chattopadhyay, A.**, Bhattacharya, S., & Ranjan Ray, M. (2010). Histopathology and cell cycle alteration in the spleen of mice from low and high doses of sodium fluoride. *Fluoride*, 43(4), 237.
63. Podder, S., **Chattopadhyay, A.**, Bhattacharya, S., & Ray, M. R. (2008). Differential in vivo genotoxic effects of lower and higher concentrations of fluoride in mouse bone marrow cells. *Fluoride*, 41(4), 301-7.
64. **Chattopadhyay, A.** (2005). Understanding of genetic information in higher secondary students in northeast India and the implications for genetics education. *Cell Biology Education*, 4(1), 97-104.
65. **Chattopadhyay, A.**, & Mahajan, B. S. (2004). Students' understanding of DNA and DNA technologies after "Fifty years of DNA double helix". *epiSTEME-1*, 14(49), 19.
66. **Chattopadhyay, A.**, & Chatterjee, A. (1998). Influence of buthionine sulfoximine on radiation induced chromosome aberrations in mammalian cells. *Recent aspects of cellular and applied radiobiology. Indo-German symposium. Proceedings*.
67. **Chattopadhyay, A.**, Deb, A. Chatterjee, A. (1999). Modulation of the clastogenic activity of gamma-irradiation in buthionine sulphoximine-mediated glutathione depleted mammalian cells. *International Journal of Radiation Biology*, 75(10), 1283-1291.
68. Chatterjee, A., & **Chattopadhyay, A.** (1998). Influence of buthionine sulfoximine-mediated glutathione depletion on clastogenic activity of bleomycin and γ -rays. *Current Science*, 604-608.
69. Choudhury, S., **Chattopadhyay, A.**, & Chatterjee, A. (1997). Modulation of the clastogenic activity of bleomycin by reduced-glutathione, glutathione-ester and buthionine sulphoximine. *Mutagenesis*, 12(4), 221-225.

70. Chatterjee, A., **Chattopadhyay, A.**, & Lawlor, C. J. Z. (1995). Effect of glutathione on sister-chromatid exchanges in normal and buthionine sulfoximine-treated mice. *Mutation Research/Fundamental and Molecular Mechanisms of Mutagenesis*, 327(1), 171-177.

17. Detail of patents. NIL

18. Books/Reports/Chapters/General articles etc.

Sl. No	Title	Author's Name	Publisher	Year of Publication
1	Lead and aquatic ecosystems, biomarkers and implications for humankind	Sarkar O, Islam S, Dey KK and Chattopadhyay A	Springer Nature book on Toxicology	2021
2	Vinyl fluoride	Chattopadhyay A and Podder S	Encyclopedia of Toxicology. 3rd ed. Elsevier	2014
3	Transgenic animals: new vista in toxicological research	Podder S and Chattopadhyay A	Advanced Frontier on Biotechnology. Jaya Publishing House, Delhi, India	2014
4	Genotoxicity of fluoride: modulation of endogenous glutathione level	Podder S, Chattopadhyay A, Bhattacharya S	Lambert Academic Publishing. Saarbrucken Germany	2012
5	Molecular mechanisms of functional disorder induced by mercury	Chatterjee S., Bhattacharya S., Chattopadhyay A	Lambert Academic Publishing. Saarbrucken Germany	2012

19. Ongoing Research Projects

Sl No.	Title of Project	Funding Agency	Amount (Rs.)	Sanction date	Role
1	Assessment of endocrine disruption in fish reproduction	DBT project	32 L	27.12.2019	Co-PI
2	Enhancement of radio-sensitivity in cancer cells by depleting intracellular Nrf2 level	UGC-DAE-CSR collaborative project	7.75 L	31.3.2022	PI

20. Completed Research Project

Sl No.	Title of Project	Funding Agency	Amount (Rs.)	Completion date	Role
1	Low radiation induced hyper radiosensitivity of mammalian cells	IUAC, N. Delhi	6 L	25.12.2009	PI

2	A highly efficient technique for breeding Indian major carps.	West Bengal State Department of Science & Technology.	17.5 L	31.3.2012	PI
3	Genotoxicity and apoptosis induction after coexposure to arsenic and fluoride in mammalian cells: effect on radiosensitivity and modulation of stress elements	UGC-DAE-CSR-Kolkata Centre	7.5 L	31.8.2012	PI
4.	Isolation, characterization and anticancer properties of endophytic fungal metabolites from north eastern India	DBT (Twining)	Total: 81 L VB component: 37.96 L	27.6.2014	PI
5	Polymer supported green silver nanoparticles using plants of North-East India; studies on toxicity and anti-cancer property.	DBT (Twining)	Total 60L VB component 25L	12.8.2017	PI
6	Studies on anticancer properties of graphene oxide based gold nanoparticles	UGC-DAE-CSR-Kolkata Centre	12 L	30.11.18	PI

21. Life Membership:

1. UICC (International Union Against Cancer)
2. Indian Society of Cell Biology
3. Indian Association for Radiation Biology
4. Zoological Society of Calcutta
5. Association of Teachers in Biology
6. All India Congress of Cytology and Genetics
7. DNA Society of India
8. International Society for Fluoride Research
9. Archana Sharma Foundation of Calcutta (ASFC)

22. Seminar/Symposia/Training organized:

Joint convener

Two days' Workshop cum National Seminar on "Trends in Modern Biology: Techniques and Applications", 23rd and 24th march 2019, organized by Department of Zoology, Visva-Bharati in association with National Institute of Pharmaceutical Education and Research.

Chairperson

- i. National Seminar on Advancement of Biology in the 21st Century, 28th to 29th February 2020, organized by Department of Zoology, Visva-Bharati in association with The Zoological Society, Kolkata.

- ii. International conference on " Novel Approaches in Life Sciences" held on 8th and 9th April 2022, organized by the Department of Botany, G N Khalsa College, Mumbai.

23. Invited lecture:

“FLUORIDE TOXICITY ASSOCIATED ENVIRONMENTAL HEALTH”

Organized by: Department of Environmental Science, University of Calcutta.

24. Extracurricular activities:

1. '**Sangit Prabhakar**' diploma in 'Tabla' playing from Prayag Sangit Samiti (Allahabad). Singer of '**Rabindrasangeet**'.
2. Member of the National Academic Committee of the **International Biology Olympiad** held in Mumbai, India, 2008.
3. Participated as “**Scientific Observer**” from **India** in the **International Biology Olympiad** held in Changwon, South Korea, 2010.