

Name: Dr. Sudipta Pal

Academic Qualification: M.Sc., Ph.D (Science)

Present position: Associate professor, Department of Human Physiology,
Tripura University, Suryamaninagar, West Tripura 799022

Education

- B.Sc. (Hons. in Physiology) from Rammohan College under University of Calcutta, West Bengal, India
- M.Sc. in Physiology (University of Calcutta), West Bengal, India
- Ph.D (Science) (University of Calcutta), West Bengal, India

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Address for communication: Nutritional Biochemistry and Toxicology Laboratory,
Department of Human Physiology, Academic
Building 8, Tripura University, Suryamaninagar,
West Tripura 799022, India

**Teaching Experience: More than twenty years
(Temporary and substantive post)**

1) Sixteen years of post-graduate teaching experience in substantive post:

- **As Assistant Professor:** Department of Human Physiology, Tripura University, Suryamaninagar, West Tripura 799022 (February, 2010 to Jan, 2021, September, 2021 to till date)
- **As Professor:** Seven months of teaching experience in Physiology at University of Gour Banga, Malda, West Bengal (February, 2021 to August, 2021).

2) Under-graduate teaching experience in substantive post: (Two years)

- **As Assistant Professor (Gazette B Post):** One year nine months of teaching experience at undergraduate level as Assistant Professor of Human Physiology at Netaji Subhash Mahavidyalaya, A Govt. Degree College under Tripura University, Udaipur, South Tripura (From April 2008-Feb2010).

3) Under-graduate teaching experience as part-time/contractual lecturer:

- **As Contractual Full-time Lecturer:** Nine months of teaching experience as contractual full-time lecturer at Bangabasi Evening College, a degree college in Kolkata under University of Calcutta (From August, 2007 to April, 2008).
- **As Part-time Lecturer:** Four years of teaching experience as a part-time lecturer at Rammohan College, Kolkata (December, 2001 to March, 2005) and St Paul's Cathedral Mission College, Kolkata (September, 2004 to April, 2008).

Research experience: More than twenty years

Pre-PhD Research Experience: Ph.D research work was conducted on biochemical toxicology area. Title of the Thesis was "*Certain Studies on Glucose Homeostasis Following Exposure to Arsenic*".

Post-PhD Research Experience: Twelve years of research experience as a Ph.D. supervisor to guide students in various areas of toxicological and community health researches.

Areas of Research

- Research study mainly focuses on evaluation of biochemical, morphological and metabolic effects of various environmental pollutants like arsenic, lead, chromium, fluoride etc. on different organ systems in animal model and possible mechanisms involved therein. The study also gives emphasis on amelioration of organ specific toxic effects of those pollutants by administration of various natural as well as chemical antioxidants, metal chelators and plant derived compounds.

- Additionally, community-based researches on various nutritional aspects are also carried out to identify malnutrition related problems existing in Tripura and also to find out or suggest possible remedial measures for prevention of malnutrition or over nutrition related disorders.

Research Publications

YEAR-WISE PUBLICATIONS IN PEER REVIEWED/SCOPUS INDEXED/UGC-LISTED JOURNALS

YEAR 2026

1) Bhattacharjee S, **Pal S***. Mechanisms of myocardial damage and structural remodeling caused by doxorubicin-triggered NF-kB modulation. *International Physiology* 2026;14(1): 7-17. <https://doi.org/10.21088/ip.2347.1506.14126.1> [ISSN: 2347-1506] [Indexed in SCOPUS, Cross Ref, J-Gate]

YEAR 2025

1) **Pal S***, Bhattacharjee S. Investigating the molecular basis of cadmium acetate-induced GSK-3 β dysregulation through molecular docking insights in Alzheimer's disease progression. *Nature Cell and Science* 2025; 3(1): 7-14. <https://doi.org/https://dx.doi.org/10.61474/ncs.2024.00045> [ISSN: 2958-695X] [Indexed in Google scholar, Cross Ref]

2) Chakraborty S, **Pal S***. Polystyrene microplastics: a threat to renal energy metabolism and tissue morphology in Wistar rats. *Toxicology and Environmental Health Sciences* 2025; 17: 527-541. <https://doi.org/10.1007/s13530-025-00283-7> [eISSN: 2233-7784]. [Indexed in EMBASE, SCOPUS, Google scholar, Biological Abstracts]

3) Chakraborty S, **Pal S***. Polystyrene microplastics (PS-MPs) disturb skeleto-muscular energy metabolism and tissue architecture following sub-acute exposure: A dose-responsive study. *Journal of Muscle Research and Cell Motility* 2025; 46: 421–438. <https://doi.org/10.1007/s10974-025-09713-y> [eISSN: 1573-2657]. [Indexed in Medline, SCOPUS, Google scholar, Biological Abstracts]

YEAR 2024

1) **Pal S***, Chakraborty S, Mondal S. Dose-dependent alteration in hepatic and cerebral glucose metabolism following exposure to polystyrene microplastic in Wistar rats. *Indian Journal of Physiology and Allied Sciences* 2024; 76(1): 32-39. <https://doi.org/10.55184/ijpas.v76i01.213> [ISSN: 0367-8350] [Indexed in EMBASE, Cross Ref, Google scholar, Index Copernicus]

YEAR 2023

- 1) **Pal S***. A community based comparative study on menopausal health issues of urban and rural women of Tripura, North-east India. *Indian Journal of Physiology and Allied Sciences* 2023; 75(1): 12-18. <https://doi.org/10.55184/ijpas.v75i01.121> [ISSN: 0367-8350] [Indexed in Embase, Cross Ref, Google scholar, Index Copernicus]
- 2) **Pal S***. Microplastic pollution: A potent threat for metabolic disruption in mammals. *Indian Journal of Physiology and Allied Sciences* 2023; 76(2): 22-26. <https://doi.org/10.55184/ijpas.v76i02.226> [ISSN: 0367-8350] [Indexed in Embase, Cross Ref, Google scholar, Index Copernicus]

YEAR 2022

- 1) **Pal S***. A comparative study on hematological, bioenergetics and oxidative stress indices of fresh water male spiny eel fish (*Mastacembelus armatus*) collected from the Haora and Gomati rivers of Tripura, Northeast India in relation to heavy metal contamination. *Comparative Clinical Pathology* 2022; 31: 265-280. <https://doi.org/10.1007/s00580-022-03330-8> [ISSN: 1618-565X] [SCOPUS indexed]
- 2) Das P, **Pal S***. Metabolic energy insufficiency in mice kidney following short-term exposure to lead: An in-vivo study. *Indian Journal of Physiology and Allied Sciences* 2022; 73(1): 17-25. <https://doi.org/10.55184/ijpas.v74i1.62> [ISSN: 0367-8350][Indexed in Embase, Cross Ref, Google scholar, Index Copernicus]

YEAR 2021

- 1) **Pal S***. Oleanolic acid, a prospective protective agent against brain energy Metabolism and oxidative dysfunctions following hexavalent chromium Exposure in mice. *Asian Journal of Pharmaceutical and Clinical Research* 2021; 14(2): 1-10. <http://dx.doi.org/10.22159/ajpcr.2021v14i12.43311>. [ISSN: Print - 0974-2441] [UGC care listed, SCOPUS indexed]
- 2) **Pal S*** and Chatterjee AK. Modulation of arsenic-induced oxidative stress in rat liver and kidney following exposure to alcohol. *Journal of Applied bioscience* 2021; 47(1-2): 46-53. [ISSN: 0975- 685X] [UGC Care listed (Expanded Web of Science group)]

YEAR 2020

- 1) Das P, **Pal S*** and Basu S. Metabolic adaptability in liver and gastrocnemius muscle of mice following sub-acute lead toxicity. *Toxicology and Industrial Health* 2020; 36(7):487-501. <https://doi.org/10.1177/0748233720937196>. [ISSN: 07482337] [UGC care listed, SCOPUS indexed]

YEAR 2019

1) Shil K and **Pal S***. Metabolic and Morphological Disorientation in Liver and Skeletal Muscle of Mice Exposed to Hexavalent Chromium. *Comparative Clinical Pathology* 2019; 28: 1729–1741. <https://doi.org/10.1007/s00580-019-03014-w> [ISSN No.1618-565X] [UGC care listed, SCOPUS indexed]

YEAR 2018

1) Shil K, **Pal S***. Metabolic adaptability in hexavalent chromium treated renal tissue: an in vivo study. *Clinical Kidney Journal* 2018; 11(2): 222-229. <https://doi.org/10.1093/ckj/sfx069> [ISSN: 2048-8513] [UGC care listed, SCOPUS indexed]

YEAR 2017

1) Shil K, **Pal S***. Hexavalent chromium induced alteration of carbohydrate bioenergetics: A dose-dependent study. *Asian Journal of Pharmaceutical and Clinical Research* 2017; 10(2), 410-417. <https://dx.doi.org/10.22159/ajpcr.2016.v10i2.16019> [ISSN: 0974-2441] [UGC care listed, SCOPUS indexed]

2) Das P, **Pal S***. Lead (Pb), a Threat to Protein Metabolic Efficacy of Liver, Kidney and Muscle in Mice. *Comparative Clinical Pathology* 2017; 26: 875-883. <https://doi.org/10.1007/s00580-017-2459-6> [ISSN: 1618-5641] [UGC care listed, SCOPUS indexed]

3) Das P, **Pal S***. Alteration in carbohydrate metabolism by sub-acute lead exposure: A dose-dependent study. *International Journal of Pharmacy and Pharmaceutical Sciences* 2017; 9(3):254-261. <https://dx.doi.org/10.22159/ijpps.2017v9i3.16491> [ISSN: 0975-1491]

YEAR 2015

1) Sarkar C, **Pal S***. Effects of sub-acute fluoride exposure on discrete regions of rat brain associated with thyroid dysfunction: a comparative study. *International Journal of Biomedical Research* 2015; 6(09): 647-660. <https://doi.org/10.7439/ijbr>. [ISSN: 2455-0566]

YEAR 2014

1) Sarkar C, **Pal S***, Das N, Dinda B. Ameliorative effects of oleanolic acid on fluoride induced metabolic and oxidative dysfunctions in rat brain: Experimental and biochemical studies. *Food and Chemical Toxicology* 2014; 66: 224-236. <https://doi.org/10.1016/j.fct.2014.01.020>. [ISSN: 0278-6915] [UGC care listed, SCOPUS indexed]

- 2) Sarkar C, Das N, **Pal S***, Dinda B. Oxidative stress induced alteration of protein and nucleic acid metabolism in fluoride-intoxicated rat brain: protection by α -hydroxy olean-12-en-27-oic acid isolated from *Neanotis wightiana*. *International Journal of Pharmaceutical Sciences and Research* 2014; 5(7): 3047-3065. [https://doi.org/10.13040/IJPSR.0975-8232.5\(7\).3047-66](https://doi.org/10.13040/IJPSR.0975-8232.5(7).3047-66) [ISSN: 0976-044X]
- 3) Bhattacharjee S, **Pal S***. Anti-lipidemic and cardioprotective effects of vitamin B₁₂ and folic acid against arsenic toxicity. *International Journal of Pharmaceutical, Chemical and Biological Sciences* 2014; 4(2), 353-360. Available online at www.ijpcbs.com [ISSN: 2249-9504]
- 4) Bhattacharjee S, **Pal S***. Additive protective effects of selenium and vitamin E against arsenic induced lipidemic and cardiotoxic effects in mice. *International Journal of Pharmacy and Pharmaceutical Sciences* 2014; 6(5), 406-413. [ISSN: 0975-1491]
- 5) **Pal S***, Sarkar C. Protective effect of resveratrol on fluoride induced alteration in protein and nucleic acid metabolism, DNA damage and biogenic amines in rat brain. *Environmental Toxicology and Pharmacology* 2014; 38(2):684-699. <https://doi.org/10.1016/j.etap.2014.07.009>. [ISSN: 1382-6689] [UGC care listed, SCOPUS indexed]
- 6) Sarkar C, **Pal S***. Ameliorative effect of resveratrol against fluoride induced alteration of thyroid function in male Wistar rats. *Biological Trace Element Research* 2014; 162(1-3):278-287. <https://doi.org/10.1007/s12011-014-0108-3>. [ISSN: 0163-4984] [UGC care listed, SCOPUS indexed]

YEAR 2013

- 1) Bhattacharjee S, Sarkar C, **Pal S***. Additive beneficial effect of folic acid and vitamin B₁₂ co-administration on arsenic-induced oxidative damage in cardiac tissue *in vivo*. *Asian Journal of Pharmaceutical and Clinical Research* 2013; 6 (1), 64-69. [ISSN: 09742441] [UGC care listed, SCOPUS indexed]
- 2) Sarkar C, Bhattacharjee S, **Pal S***. Mitigating role of folic acid and vitamin B₁₂ against sodium arsenite-induced oxidative stress in rat testis. *Journal of Applied Bioscience* 2013; 39(1), 1-22. [ISSN: 0975- 685X] [UGC Care listed (Expanded Web of Science group)]
- 3) **Pal S***, Bhattacharjee S, Chatterjee AK. Certain additive beneficial effects of melatonin and vitamin E co-administration against arsenic-induced oxidative stress in rat liver. *Indian Journal of Physiology and Allied Sciences* 2013; 67(3), 99-115. [ISSN: 0367-8350] [Indexed in EMBASE, Cross Ref, Google scholar, Index Copernicus]
- 4) Bhattacharjee S, Shil K, Das P, **Pal S***. Arsenic-induced cardiotoxicity: ameliorative role of vitamins and minerals. *Indian Journal of Physiology and Allied Sciences* 2013; 67(4), 167-173. [ISSN: 0367-8350][Indexed in EMBASE, Cross Ref, Google scholar, Index Copernicus]

YEAR 2006

1) **Pal S**, Chatterjee AK. Possible beneficial effects of melatonin supplementation on arsenic-induced oxidative stress in Wistar rats. *Drug and chemical toxicology* 2006; 29(4),423-433. <https://doi.org/10.1080/01480540600837993>. [ISSN: 0148-0545 (print), 1525-6014 (electronic)] [UGC care listed, SCOPUS indexed]

YEAR 2005

1) **Pal S**, Chatterjee AK. Prospective protective role of melatonin against arsenic-induced metabolic toxicity in Wistar rats. *Toxicology* 2005; 208 (1), 25-33. <https://doi.org/10.1016/j.tox.2004.11.005>. [ISSN: 0300-483X] [UGC care listed, SCOPUS indexed]

YEAR 2004

1) **Pal S**, Chatterjee AK. Protective effect of N-acetylcysteine against arsenic-induced depletion in vivo of carbohydrate. *Drug and chemical toxicology* 2004; 27 (2), 179-189. <https://doi.org/10.1081/dct-120037501>. [IF:3.356] [ISSN:0148-0545 (print), 1525-6014 (electronic)]. [UGC care listed journal, SCOPUS indexed]

2) **Pal S**, Chatterjee AK. Protective effect of methionine supplementation on arsenic-induced alteration of glucose homeostasis. *Food and chemical toxicology* 2004; 42 (5), 737-742. <https://doi.org/10.1016/j.fct.2003.12.009>. [ISSN:0278-6915] [UGC care listed journal, SCOPUS indexed]

YEAR 2002

1) **Pal S**, Chatterjee AK. Arsenic-induced alteration of glucose homeostasis. *Indian Journal of Physiology and Allied Sciences* 2002; 56 (1), 25-32. [p-ISSN:0367-8350]

PUBLICATIONS IN BOOK CHAPTERS

1) Pal S (2023). Dose-responsive effect of sub-acute lead exposure on alteration of carbohydrate metabolism in murine model. *Current Overview on Pharmaceutical Science Vol. 6*, 89–103. <https://doi.org/10.9734/bpi/cops/v6/9485F>.

2) Bhattacharjee S, Pal S (2022). Arsenic-induced oxidative stress in cardiac tissue of rats: Synergistic effects of folic acid and vitamin B12. *Challenges and Advances in Pharmaceutical Research Vol. 8*, 49–63. <https://doi.org/10.9734/bpi/capr/v8/8249F>

3) Shil K, Pal S (2022). Hexavalent Chromium and Cellular Bioenergetics: An Experimental Study. *Current Topics on Chemistry and Biochemistry Vol. 5*, 95–111. <https://doi.org/10.9734/bpi/ctcb/v5/3393C>.

4) Pal S (2022). Oleanolic acid, a prospective protective agent against brain energy metabolism and oxidative dysfunctions following hexavalent chromium exposure in mice. Recent Advances in Pharmaceutical Sciences (Sen DB and Jain NK eds.). Innovare Academic Sciences Pvt. Ltd. Bhopal, MP, India: pp.15-44.

5) **Pal S*** and Chatterjee AK (2021). Concomitant administration of selenium and vitamin B12 ameliorates arsenic-induced oxidative stress in male Wistar rats. Biological Sciences: Impacts on Modern Civilization, Current and Future Challenges. (A Guha Author), New Delhi Publishers. New Delhi: pp.138-153. [ISBN: 978-81-947417-9-4], DOI: 10.30954/ndp.bio.2020.13

6) **Pal S*** and Shil K (2018). *Metabolic toxicity and alteration of cellular bioenergetics by hexavalent chromium*. In: Handbook of Environmental Materials Management. (C.M. Hussain Ed.), Springer International Publishing AG, Switzerland [ISSN: 978-3-319-73644-0]. https://doi.org/10.1007/978-3-319-58538-3_58-1

7) **Pal S.** (2024). Postmenopausal health risks of Tripura's slum women. South Asian Association of Physiologists (SAAP) Bulletin, Vol.7(3): 11-16. <https://www.thesaap.org/saap-bulletin.html>.

[* corresponding author]

Invited Lectures and Papers Presented at Conferences/Seminars

1. **Invited Talk (Lead Lecture): Pal S** (2026). Alteration in cardiac tissue energy metabolism and oxidative stress markers in Wistar rats following polystyrene microplastic exposure. Presented at the International Conference on 'Lifestyle Management & Health in Modern Era' (MCAIntCon2026), organized by the Department of Physiology, Yoga, Physical Education & Nutrition, Midnapore College, west Bengal, India during 11th to 12th March, 2026.
2. **Invited Talk (Symposium Lecture): Pal S** (2025). Identifying the major risk factors of osteoporosis and osteopenia in rural women of Tripura. Presented at PHYSICON-2025, XXXVI Annual Conference of the Physiological Society of India organized by the Department of Physiology, AIIMS, Bhubaneswar, Odisha during 21st to 23rd November, 2025.
3. **Invited Talk: Pal S** (2025). Modulation of gastrocnemius muscle energy metabolism and muscular architecture following graded doses of polystyrene microplastics in Wistar rats. Presented at HP-Scientific Talk-2025, an International Conference on Sustainable Health: Translation Research from Molecules to Behavioural Aspects, organized by the Department of Human Physiology, Vidyasagar University and the Physiological Society of India during 28th Feb to 1st March, 2025.

4. **Invited talk: Pal S (2024).** Chronic exposure of polystyrene microplastics alters renal energy metabolism and tissue architecture in Wistar rats in a dose-responsive fashion. Presented at 'PHYSICON 2024, XXXV Annual Conference of the Physiological Society of India, organized by the Department of Human Physiology, Tripura University, Tripura. India, 15th to 17th November, 2024.
5. **Invited talk: Pal S (2023).** Menopausal health outcome of slum dwelling women in India. Presented at the International Conference 'BRAINHEALTHCON-2023 organized by the Department of Allied Health Sciences, Brainware University, Kolkata, West Bengal, India, 8th to 10th Dec, 2023.
6. **Invited talk: Pal S (2023).** Microplastic pollution: A potent threat for metabolic disruption in mammals. PHYSICON 2023, XXXIV Annual Conference of the Physiological Society of India (PSI). Smt. Shakuntala Das Gupta Memorial Oration Lecture and Chairperson of scientific session. Organized by the Department of Physiology, Shri B.M. Patil Medical College, Hospital & Research Center, BLDE(deemed to be University), Vijayapura, Karnataka, India, 2nd to 3rd November, 2023.
7. **Invited talk: Pal S (2023).** Prevalence of menopausal symptoms in relation to obesity indices of the urban slum women of Tripura, North-East India, presented at 'PHYSICON-2022', XXXIII Annual Conference of the Physiological Society of India (PSI). Department of Human Physiology, Vidyasagar University, Midnapore, W.B., India, held on 3rd to 5th March, 2023.
8. **Invited talk: Pal S (2022).** Prevalence and Determinants of Menopausal Health Issues in Slum Dwelling Women in India: Combating Approaches, presented at International Webinar on 'Women Scientists in Biology and Medicine'. Organized by ISEC (Institute of Science, Education and Research), Kolkata, held on 4th June, 2022.
9. **Invited talk: Pal S (2022).** Relative studies on menopausal health issues of urban and rural women of Tripura, North-East India. Delivered at PHYSICON-2021, XXXII Annual Conference of the Physiological Society of India (PSI) held at Berhampore Girl's College, Murshidabad, West Bengal during 12-14 March, 2022.
10. **Invited speaker: Pal S (2021).** Physiology in Higher Education and Public Awareness. Jointly organized by the Dept. of Physiology and IQAC, Mahadevananda Mahavidyalaya, West Bengal, India, 18th July, 2021.
11. **Invited talk: Pal S (2019).** Dietary supplementation of S-adenosyl methionine protects against arsenic-induced metabolic and oxidative stress in Wistar rats. National conference PHYSICON-2019, organized by Bankura Christian College, Bankura, West Bengal, 15th-17th Nov, 2019.
12. **Invited talk: Pal S (2018).** Hexavalent chromium (Cr VI) induced alteration in metabolic homeostasis in mice hepatocyte. National Seminar on Biological Sciences for Human welfare: Teaching and Research in Modern Perspective. Department of Physiology, Zoology, Botany and Environmental Sciences, Berhampore Girls' College, Murshidabad, West Bengal. 29th-30th Sept, 2018.

- 13. Invited talk: Pal S** (2017). Metabolic adaptability in Liver, Skeletal Muscle and Brain of Mice Exposed to Hexavalent Chromium. FIPS-PHYCIOCON 2017(National conference). 5th to 7th Nov, 2017. Organized by DIPAS, New Delhi held at Patel Chest Institute, Delhi University.
- 14. Pal S** (2017). Fluoride, a metabolic disruptor in brain tissue of rat. International Conference on Material Sciences-2017(International Conference). 16th-18th Feb, 2017. Deptt. Of Physics, Tripura University, Tripura, India.
- 15. Pal S** (2016). Protective effect of resveratrol against sodium fluoride-induced oxidative stress in rat brain. 103rd Indian Science Congress-2016 (National Conference). 3rd-7th Jan, 2016. University of Mysore, Karnataka, India.
- 16. Invited talk: Pal S** (2016). Resveratrol, a Prospective Protective Agent Against Fluoride-induced Metabolic Stress in Rat Brain. XXVIIIth Annual Conference of the Physiological Society of India (PHYCIOCON-2016) (National Conference). 18th -20th Nov, 2016. Midnapore College, Midnapore, W.B., India.
- 17. Invited talk: Pal S** (2015). Role of Certain Nutraceuticals in Protection against Arsenic Toxicity. UGC sponsored two days" National seminar. 22nd-23rd September, 2015. Deptt. of Food & Nutrition, Raidighi College, W.B., India.
- 18. Invited talk: Pal S** (2015). Sub-acute oral exposure to fluoride: A threat to metabolic homeostasis in rat brain. Indian Science Congress-2015. 3rd-7th Jan, 2015. University of Mumbai, Mumbai.
- 19. Invited speaker: Pal S** (2014). Sub-acute arsenic toxicity: a threat to metabolic homeostasis. XXVIth Annual Conference of the Physiological Society of India (National conference). 19-21 Dec, 2014. Deptt. of Physiology & Zoology, Berhampore Girl's College, Murshidabad, W.B., India.
- 20. Speaker in panel discussion** on Women and Science, organized by the Women's studies Centre, Tripura University, Tripura (India) on 25th February, 2014. Title: Women Scientist as Nobel Prize Winner.
- 21. Pal S** (2013). Arsenic, an environmental toxicant altering carbohydrate metabolism *in vivo*. International Conference on Material Sciences (ICMS-2013). Department of Physics, Tripura University, Tripura, India, 21-23 February, 2013.
- 22. Pal S** (2012). Ameliorative effect of selenium and vitamin B₁₂ co-administration against arsenic-induced oxidative stress in male Wistar rats. 99th Indian Science Congress. KIIT University, Bhubaneswar, India, January 3rd to 7th, 2012.

23. **Pal S**, Chatterjee AK. (2011). Combined exposure of N-acetylcysteine and melatonin ameliorates arsenic-induced oxidative stress in male Wistar rats. 98th Indian Science Congress, held at SRM University, Chennai (India), January 3rd to 7th.
24. **Pal S**, Chatterjee AK. (2009). Co-administration of melatonin and vitamin E ameliorates arsenic-induced oxidative stress in rat liver. International Conference on Integrative Physiology: Modern Perspective & Platinum Jubilee Celebration of the Physiological Society of India. Organized by the Physiological Society of India, 2009.
25. **Pal S**, Mukherjee D, Bandopadhyay D, Chatterjee AK. (2009). Co-administration of melatonin and vitamin E ameliorates arsenic-induced oxidative stress in rat liver. International Conference on Integrative Physiology: Modern Perspective & Platinum Jubilee Celebration of the Physiological Society of India, held at Kolkata (India), 2009.
26. **Pal S**, Chatterjee AK. (2008). Combined Supplementation of Melatonin and Vitamin C in the protection of Arsenic-induced Oxidative Stress in Liver of Wistar Rats. 19th Annual Conference of the Physiological Society of India, held at Tripura (India), 12th to 14th December, 2008.
27. **Pal S**, Chatterjee AK. (2007). Studies on glucose homeostasis *in vivo* following exposure to excess selenium. International Conference on Frontier Researches in Integrative Physiology-2007, held at Kolkata (W. B.), India, Jan 8th to 10th, 2007.
28. **Pal S**, Chatterjee AK. (2006). Modulation of arsenic-induced oxidative stress following exposure to alcohol. 18th Annual Conference of the Physiological Society of India, held at Kolkata (W. B.), India, Dec 8th to 10th, 2006.
29. **Pal S**, Chatterjee AK. (2006). Prospective protective role of melatonin against arsenic-induced oxidative stress. 93rd Indian Science Congress, held at Hyderabad (A.P.), India, Jan 3rd to 7th, 2006.
30. **Pal S**, Chatterjee AK. (2005). Prospective protective role of melatonin against arsenic-induced metabolic toxicity in Wistar rats. 17th Annual Conference of the Physiological Society of India, held at Gulbarga (Karnataka), India, Dec 1st to 3rd, 2005.
31. **Pal S**, Chatterjee AK. (2005). Possible influence of alcohol exposure on arsenic-induced carbohydrate metabolism. 27th Annual Conference of the Indian Association of Biomedical Scientists, held at Kolkata (West Bengal), India, Nov 25th to 27th, 2005.
32. **Pal S**, Chatterjee AK. (2005). Possible beneficial effect of N-acetylcysteine on arsenic-induced alteration of cellular antioxidant system. 12th West Bengal State Science & Technology congress, held at Kolkata (W.B.), India, Feb 28th to 1st March, 2005.

33. **Pal S**, Chatterjee AK. (2005). Protective effect of melatonin against arsenic-induced metabolic toxicity. 92nd Indian Science Congress, held at Ahmedabad (Gujrat), India, Jan 3rd to 7th, 2005.
34. **Pal S**, Chatterjee AK. (2004). Protective effect of methionine supplementation on arsenic-induced alteration of glucose homeostasis. 16th Annual Conference of the Physiological Society of India, held at Midnapore (W. B.), India, Dec 16th to 18th, 2004.
35. **Pal S**, Chatterjee AK. (2003). Protection against arsenic-induced alteration of glucose homeostasis by N-acetylcysteine. 15th Annual Conference of the Physiological Society of India, held at Bijapur (Karnataka), India, Dec 4th to 6th, 2003.
36. **Pal S**, Chatterjee AK. (2002). Studies on certain aspects of carbohydrate metabolism following arsenic treatment. 13th Annual Conference of the Physiological Society of India, held at Kolkata (W.B.), India, Feb 23rd to 24th, 2002.

Conference/Seminar/Workshop/Orientation/ Refresher Course/Webinar Attended

YEAR 2026

1) Participated as Co-Chairperson and presented a paper at the International Conference on 'Lifestyle Management & Health in Modern Era' (MCAIntCon2026), organized by the Department of Physiology, Yoga, Physical Education & Nutrition, Midnapore College, west Bengal, India during 11th to 12th March, 2026.

YEAR 2025

1) Participated as Co-Chairperson and also presented a paper at PHYSICON-2025, XXXVI Annual Conference of the Physiological Society of India organized by the Department of Physiology, AIIMS, Bhubaneswar, Odisha during 21st to 23rd November, 2025.

2) Participated as Co-Chairperson and presented a paper at HP-Scientific Talk-2025, an International Conference on Sustainable Health: Translation Research from Molecules to Behavioural Aspects, organized by the Department of Human Physiology, Vidyasagar University and the Physiological Society of India during 28th Feb to 1st March, 2025.

YEAR 2024

1) Participated and presented a paper at 'PHYSICON 2024, XXXV Annual Conference of the Physiological Society of India, organized by the Department of Human Physiology, Tripura University, Tripura. India, 15th to 17th November, 2024.

YEAR 2023

- 1) Participated and presented a paper at the International Conference 'BRAINHEALTHCON-2023 organized by the Department of Allied Health Sciences, Brainware University, Kolkata, West Bengal, India, 8th to 10th Dec, 2023.
- 2) Participated as Co-Chairperson and presented Oration lecture at PHYSICON 2023, XXXIV Annual Conference of the Physiological Society of India (PSI) organized by the Department of Physiology, Shri B.M. Patil Medical College, Hospital & Research Center, BLDE (deemed to be University), Vijayapura, Karnataka, India, 2nd to 3rd November, 2023.
- 3) Participated and presented invited talk at 'PHYSICON-2022', XXXIII Annual Conference of the Physiological Society of India (PSI). Department of Human Physiology, Vidyasagar University, Midnapore, W.B., India, held on 3rd to 5th March, 2023.

YEAR 2022

- 1) Participated and presented an invited talk at International Webinar on 'Women Scientists in Biology and Medicine', organized by ISEC (Institute of Science, Education and Research), Kolkata, held on 4th June, 2022.
- 2) Participated and presented Invited talk at PHYSICON-2021, XXXII Annual Conference of the Physiological Society of India (PSI) held at Berhampore Girl's College, Murshidabad, West Bengal during 12-14 March, 2022.

YEAR 2021

- 1) Participated in a Panel discussion on 'Physiology in Higher Education and Public Awareness'. Jointly organized by the Dept. of Physiology and IQAC, Mahadevananda Mahavidyalaya, West Bengal, India, 18th July, 2021.

YEAR 2020

- 1) Actively participated in 1 day webinar on 'Role of statistics in data science and sample size determination in medical and biological sciences', organized by the department of Statistics, Pacchungu University College, Mizoram, North East India on 27th July, 2020.
- 2) Participated in 7 days" the International Webinar series, 2020 on the occasion of National Nutrition Month, 2020 organized by the department of Home Science, University of Calcutta, West Bengal, India from 01.09.2020 to 07.09.2020.
- 3) Participated in four days" webinar series entitled „Covid 19: Overview of the disease and general safety measures" Organized by IQAC jointly with Dept. of Physiology, Surendranath College, Kolkata, West Bengal, India, from 15th June to 18th June, 2020.

4) Actively participated on 12.08.2020 of the 10 days" International Gender Sensitization Program of „Women Empowerment for societal transformation“. Organized by the Centre for Women Empowerment and Women Studies.

5) Participated in 7 days" Webinar series on „Basic Research Methodology and Thesis Writing in Physiology“, Organized by the Deptt. of Physiology, AIIMS, Jodhpur, India from 17th August, 2020 to 23rd August, 2020.

6) Participated in the one day"s International Webinar on „Science, Biology and the World"s Future", organized by the dept. of Botany in collaboration with IQAC, Dinabandhu Andrews College, Kolkata, West Bengal, India on 25th August, 2020.

7) Participated in two days" International Symposium on „Biological sciences: Impacts on modern civilization, current and future challenges" organized by the Dept. of Botany, Rabindranath Thakur Mahavidyalaya, Bishalgarh, Tripura, in collaboration with Dept. of Botany, J.D. Women"s College, Patna, India, on 26th September, 2020.

8) Participated in one day workshop on Intellectual property rights (IPR), organized by Tripura University, sponsored by DBT, Govt. of India on 17th Jan, 2020.

YEAR 2019

1. Participated in „15 day"s Refresher Course" titled as „Science and Technology for Social Development" organized by the Faculty Development Centre, Tripura University and sponsored by Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching Scheme, MHRD, Deptt. Of Higher Education, Govt. of India 11th September, 2019 25th September, 2019.

2. Participated in 3 days" „Workshop on Animal ethics and Biomedical research“, organized by Advanced State Biotech Hub, sponsored by DBT, Govt. of India during 18th-20th March, 2019.

3. Participated in the cultural event on the closing ceremony of the International Women"s Day on 14th March, 2019 organized by the Women"s Studies Centre, Tripura University.

4. Participated in 12 days" State Level Workshop on "Gender Budgeting and Women Empowerment in Rural Areas". Sponsored by the Ministry of Women and Child Development, Govt. of India, held at Tripura University during 31st Jan, 2019 to 2nd Feb, 2019, 4th-6th Feb, 2019, 7th-9th Feb, 2019, 12th-16th Feb, 2019.

5. Participated in 21 days" Refresher Course in "Naitalim: Gandhi's Vision of Education and Present Scenario-Advances Teaching and Research Methods" during 8th to 28th January, 2019 organized by the Faculty Development Council, Tripura University, Suryamaninagar, West Tripura.

YEAR 2018

1. National Seminar on Biological Sciences for Human welfare: Teaching and Research in Modern Perspective. Department of Physiology, Zoology, Botany and Environmental Sciences, Berhampore Girls' College, Murshidabad, West Bengal. 29th-30th Sept, 2018.

YEAR 2017

1. FIPS-PHYSIOCON 2017(National conference). Organized by DIPAS, New Delhi held at Patel Chest Institute, Delhi University from 5th to 7th Nov, 2017.

2. International Conference on Material Sciences-2017(International Conference). Organized by the Deptt. Of Physics, Tripura University, Tripura, India from 16th-18th Feb, 2017.

YEAR 2016

1. 103rd Indian Science Congress-2016 (National Conference). Held at University of Mysore, Karnataka, India during 3rd-7th Jan, 2016.

2. XXVIIIth Annual Conference of the Physiological Society of India (PHYSIOCON-2016) (National Conference). Organized by the Deptt. Of Physiology, Midnapore College, Midnapore, W.B., India during 18th -20th Nov, 2016.

YEAR 2015

1. UGC sponsored two days" National seminar. Organized by the Deptt. of Food & Nutrition, Raidighi College, West Bengal, India during 22nd-23rd September, 2015.

2. Indian Science Congress-2015. Held at University of Mumbai, Mumbai (India) during 3rd-7th Jan, 2015.

YEAR 2014

1. XXVIth Annual Conference of the Physiological Society of India (National conference). Organized by the Deptt. of Physiology & Zoology, Berhampore Girl's College, Murshidabad, W.B., India during 19-21 Dec, 2014.

2. Speaker in panel discussion on Women and Science, organized by the Women's studies Centre, Tripura University on 25th February, 2014.

YEAR 2013

1. Participated in one day workshop on Enhancing Institutional Innovation with Intellectual Property Rights organized by Tezpur University Intellectual Property Cell in collaboration with Equal Opportunity Cell, T.U., on 21st March, 2013.
2. Participated in UGC-sponsored 5 days workshop on Capacity Building of Women Managers in higher Education: Sensitivity/ Awareness/ Motivation Workshop organized by Tripura University, 30th March to 3rd April, 2013.
3. Attended 100th Indian Science Congress, held at University of Calcutta, Kolkata (India), January 3rd to 7th, 2013.
4. Attended and presented paper in the International Conference on Material Sciences (ICMS-2013). Department of Physics, Tripura University, 21-23 February, 2013.

YEAR 2012

1. Attended and presented paper in the 99th Indian Science Congress, held at KIIT University, Bhubaneswar (India), January 3rd to 7th, 2012.

YEAR 2011

1. Attended the Tripura State Science Congress, held at Agartala, Tripura (India), September 8th to 9th, 2011.
2. Attended and presented a paper in the 98th Indian Science Congress, held at SRM University, Chennai (India), January 3rd to 7th, 2011.
3. Participated in Seminar on Molecular Biology organized by Deptt. of Microbiology, AGMC in collaboration with Biotech Hub, T.U., 6th Nov, 2011.
4. Participated in one day awareness programme on Chemical weapons convention organized by Chemistry Deptt, T.U., 13th March, 2011.

YEAR 2010

1. Attended the National CME on Immunology under the aegis of Immunological Society, organized by Agartala Govt. Medical College, Tripura (India), 5th to 6th March, 2010.

YEAR 2009

1. Attended and presented a paper in the International Conference on Integrative Physiology: Modern Perspective & Platinum Jubilee Celebration of the Physiological Society of India, held at Kolkata (India), 2009.

YEAR 2008

1. Attended and presented a paper in the 19th Annual Conference of the Physiological Society of India, held at Tripura (India), 12th to 14th December, 2008.

YEAR 2007

1. Attended and presented a paper at the International Conference on Frontier Researches in Integrative Physiology-2007, organized by the Department of Physiology, University of Calcutta, held at Kolkata (W. B.), India, Jan 8th to 10th, 2007.

YEAR 2006

1. Attended and presented a paper at the 18th Annual Conference of the Physiological Society of India, held at Kolkata (W.B.), India, Dec 8th to 10th, 2006.

2. Selected to present a paper at the 93rd Indian Science Congress, held at Hyderabad (A.P.), India, Jan 3rd to 7th, 2006.

YEAR 2005

1. Attended and presented an awarded published paper at the 17th Annual Conference of the Physiological Society of India, held at Gulbarga (Karnataka), India, Dec 1st to 3rd, 2005.

2. Attended and presented a paper at the 27th Annual Conference of the Indian Association of Biomedical Scientists, held at Kolkata (W. B.), India, 25th to 27th Nov, 2005.

3. Attended and presented a paper at the 12th West Bengal State Science & Technology Congress, held at Kolkata (W.B.), India, Feb 28th to 1st March, 2005.

4. Attended and presented a paper at the 92nd Indian Science Congress, held at Ahmedabad (Gujrat), India, Jan 3rd to 7th, 2005.

YEAR 2004

1. Attended and presented an awarded published paper at the 16th Annual Conference of the Physiological Society of India, held at Midnapore (W. B.), India, Dec 16th to 18th, 2004.

YEAR 2003

1. Attended and presented a paper at the 15th Annual Conference of the Physiological Society of India, held at Bijapur (Karnataka), India, Dec 4th to 6th, 2003.

YEAR 2002

1. Attended and presented a paper at the 13th Annual Conference of the Physiological Society of India, held at Kolkata (W.B.), India, Feb 23rd to 24th, 2002.

Research Projects

1) Principal Investigator in „UGC Major Research Project“ (2011-2013), sponsored by the Govt. of India, New Delhi. Amount sanctioned Rs. 9.28 lacs

Ph.D Supervision

Ph.D GUIDENCE: No. Four (Awarded)

Names of the Ph.D Awardee:

1. Chaitali Sarkar (awarded in 2015) (Thesis title: Certain aspects of fluoride toxicity on brain protein and nucleic acid metabolism in relation to thyroid function)
2. Surajit Bhattacharjee (awarded in 2016) (Thesis title: Mechanisms of arsenic-induced oxidative stress in cardiac tissue: role of certain antioxidants)
3. Kanu Shil (awarded in 2018) (Thesis title: Alteration in carbohydrate, protein and fat metabolism in liver, kidney, muscle and brain following sub-acute chromium exposure)
4. Pritha Das (awarded in 2019) (Thesis title: Studies on metabolic homeostasis in mice following sub-acute lead toxicity)

Ph.D (Ongoing): Three (03)

- 1) Susmita Chakraborty (registered). (Thesis title: Certain aspects of energy metabolism in liver, kidney and skeletal muscle following exposure to polystyrene microplastic in Wistar rats).
- 2) Sumana Mondal (registered). (Thesis title: Studies on metabolic and cellular topographical changes in discrete brain regions of Wistar rats by polystyrene microplastic).
- 3) Jyotirmoy Saha (registered). (Thesis title: Evaluation of cardiotoxic effect of combined effect of polystyrene microplastics and aluminum on Wistar rats: Possible protective role of selective polyphenol).

Supervision of M.Sc. Project/Dissertation

M.SC DISSERTATION GUIDANCE: (Year 2011-2025) Total: 73 nos. (Year 2025: 03 nos.; Year 2024: 06 nos.; Year 2023: 05 nos.; Year 2022: 08 nos.; 2021: 03 nos.; Year 2020: 06 nos.; Year 2019: 05 nos.; Year 2018: 07 nos.; Year 2017: 03 nos.; Year 2016: 06 nos.; Year 2015: 06 nos.; Year 2014: 04 nos.; Year 2013: 04 nos.; Year 2012: 04 nos.; Year 2011: 03 nos.)

Awards/Prizes Received

- 1) Received “**Smt Shakuntala Das Gupta Memorial Oration Award 2023**” presented by the Physiological Society of India, at BLDE Medical College, Karnataka, India, November 2nd, 2023.
- 2) Received “**Prof B. B. Sarkar Memorial Research Prize**” for best research publication in the year 2004, presented by the Physiological Society of India, held in Midnapore (West Bengal), India, Dec 16th to 18th.
- 3) Selected for paper presentation in “**ISCA Young Scientist Award Programme**” (Section: Medical Sciences including Physiology), organized by the 92nd Session of Indian Science Congress Association, held in Ahmedabad, India, Jan 3rd to 7th, 2005.
- 4) Received “**Prof P. B. Sen Memorial Research Prize**” for the best research publication in the year 2005, presented by the Physiological Society of India, held in Gulbarga (Karnataka), Dec 1st to 3rd.
- 5) Selected for paper presentation in “**ISCA Young Scientist Award Programme**” (Section: Medical Sciences including Physiology), organized by the 93rd Session of Indian Science Congress Association, held in Hyderabad, India, Jan 3rd to 7th, 2006.

Administrative Responsibilities Taken

- Acted as Superintendent of Women’s Hostel, Tripura University, 2011.

Membership of Societies/ Academic and Administrative Committees

- Life member of the Physiological Society of India
- Life member of Indian Science Congress Association
- Life member of the Association of Physiologists and Pharmacologists in India
- Member of the Advisory Committee, Women’s Hostel, T.U, (2011, 2013-2014)

- Executive Committee Member of Women's Association of Tripura University
- Member of Board of Under-graduate Studies, Tripura University (2013 to till date)
- Member of Board of Post Graduate Studies, Tripura University (2015 to till date)
- Member of Board of Faculty of Science, Tripura University (2014 to till date)