

Curriculum Vitae

Name: Prof. Samir Kumar Sil

Designation: Professor

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Qualifications : Ph.D., FPSI

Research : Cancer Biology, Molecular genetics, Cell physiology and Cell Signaling.

Honour/Award/Recognitions:

1. First class third position in M.Sc. Exam., Calcutta University, 1988
2. **CSIR/UGC JRF (NET)** fellowship award 1989
3. Subha Mukherjee Oration award in XX Annual conference of Physiological society of India, 14th Dec, 2008
4. **DST/FIST Visiting Teacher Fellowship Award**(Govt. of India), AIIMS, New DELHI, 2009
5. **ICMR Young Bio Medical Scientist Overseas Fellowship Award**, 2010 (Visited Department of Tropical Medicine, **Tulane University, New Orleans, USA**)
6. **Founder Fellow** of The Physiological Society of India.
7. Representation and paper presentation International Conference on Advanced Research Physiology, 21-22 July 2014, Singapore.
8. **Visiting Overseas Faculty Kansas State University, Kansas, USA**, 2014-15.
9. Elected as Recorder of the section of Medical Sciences (including Physiology) of Indian Science Congress for 102nd session, 2015.
10. Elected as Recorder of the section of Medical Sciences (including Physiology) of Indian Science Congress for 103rd session, Mysore, 2016.
11. **Coordinator of SET examination**, Tripura, under **SLET commission, Assam**.
12. **Chairman**, Human Ethics committee, **Agartala Govt. Medical College** and G B P Hospital, Agartala.
13. **Governing Body member**, Tripura Institute of Paramedical sciences, Hapania, Agartala.
14. **Chairman**, National and International Memorandum of Understanding committee, Tripura University.
15. **Chairman**, Research & Innovation committee, Tripura University
16. **Head**, Department of Human Physiology, Tripura University
17. **Former Head**, Department of Molecular Biology and Bioinformatics. Tripura University.
18. **Expert external member**, Medical Research Unit, Agartala Govt. Medical College, Tripura
19. **Chairman**, Human Ethics committee, **Tripura University**

20. **Invited Paper presentation International Conference** on Advanced Research Physiology, 21-22 July 2014, Singapore
21. **Invited Speaker:** Induction Training of Faculty Development Programme, **held at** Tripura University, September 04 to October 03, 2018
22. **Invited Speaker:** 21 Days Refresher Course, **held at** Tripura University, 08 January to 28 January, 2019.
23. **Invited Speaker and resource person:** PMMMNMTT, held at Tripura University, 11 February to 24 February, 2020
24. **Key note speaker,** NITTE – Namaste Conclave, National Conference on Health, Food Security and Environment in North East India: Issues & Challenges, 1st March to 2nd March, held at NITTE, Mangalore, 2024.
25. **Prof. B. B. Sarkar memorial oration award** from Physiological Society of India, 2024 in PHYSICON 2024 organized at Tripura University, 15 – 17 November, 2024.

Positions in Learned Academic Bodies/Organizations:

1. **Coordinator of SET examination,** Tripura State, under SLET commission, Assam
Chairman, Human Ethics committee, Agartala Govt. Medical College and G B P Hospital, Agartala
2. **Governing Body member,** Tripura Institute of Paramedical sciences, Hapania, Agartala
3. **Chairman, National and International Memorandum of Understanding committee,** Tripura University
4. **Chairman, Research & Innovation committee,** Tripura University
5. **Head,** Department of Human Physiology, Tripura University
6. **Former Head,** Department of Molecular Biology and Bioinformatics. Tripura University
7. **Expert external member,** Medical Research Unit, Agartala Govt. Medical College, Tripura
8. **Chairman, Biosafety committee, Tripura University**
9. **Chairman,** Board of Post Graduate Studies member – **Department of Human physiology**
10. **Chairman,** Board of Post Graduate Studies member – **Department of Molecular Biology and Bioinformatics**
11. **Member,** Board of Post Graduate Studies member – **Department of Botany**
12. Board of Post Graduate Studies member – **Department of Zoology**
13. Board of Post Graduate Studies member – **Department of Pharmacy**
14. **Chairman -** Board of Under Graduate Studies member, Human Physiology, Tripura University
15. Member, Board of Faculty of Sciences, Tripura University.

Publications (year wise)

1. Human specific insertion/deletion polymorphisms in Indian Populations and their possible evolutionary implications' Partha P Majumder, Bidyut Roy, Sanat Banerjee Piali

- Guha Thakurta and *Samir K Sil*. **European Journal of Human Genetics**, 7,435-446, 1999.
2. Fundamental Genomic Unity of Ethnic Indians revealed by analysis of mitochondrial DNA' Susanta Roychoudhury, Sangita Roy, Badal Dey, Madan Chakraborty, Monami roy, Bidyut Roy, A. Ramesh, N. Prabhakaran, M.V. Usharani, H. Viswanathan, Mitasree Mitra, *Samir K Sil*, and Partha P Majumder. **Current science**, 79 (9): 1182-1192, 2000.
 3. 'Genomic structures and population histories of linguistically distinct tribal groups of India' Susanta Roychoudhury, Sangita Roy, Analabha Basu, Rajat Banerjee, H. Viswanathan, M.V. Usharani, *Samir K Sil*, Mitasree Mitra and Partha P Majumder. **Human Genetics**, 109:339-350. 2001.
 4. 'Sequence variation and haplotype structure of the ICAMI and TNF genes in 12 ethnic groups of India reveal patterns of importance in designing association studies'. Sangamitra Sengupta, Shabana Faeheen, Neelanjana Mukherjee, Badal Dey, Barun Mukhopadhyaya, *Samir K. Sil*, N. Pravakaran, A. Ramesh, Deepa Edwin, M.V. Usharani, Mitashree Mitra, ChitraThakur Mahadik, Sunita Singh, Subhash C. Sehagal and Partha P. Majumder; **Annals of Human Genetics**, 68:567-574. 2004.li>
 5. Polarity and Temporality of High-Resolution Y-Chromosome Distributions in India Identify Both Indigenous and Exogenous Expansions and Reveal Minor Genetic Influence of Central Asian Pastoralists, Sanghamitra Sengupta, Lev A. Zhivotovsky, Roy King, S. Q. Mehdi, Christopher A. Edmonds, Cheryl-Emiliane T. Chow, Alice A. Lin, Mitashree Mitra, *Samir K. Sil*, A. Ramesh, M. V. Usha Rani, Chitra M. Thakur, L. Luca Cavalli-Sforza, Partha P. Majumder, and Peter A. Underhill , **Am J Hum Genet.** 2006 Feb; 78(2): 202–221. IF 11.8
 6. Antibacterial activity of *Oroxylum indicum*- an indigenous medicinal plant of Tripura. Rupanjali Saha, *Samir Kumar Sil*, Bikash Ch. Mohanta and Biswanath Dinda.. In: Proc. Sem. Biodiversity, Dept. of Life Science, Tripura University, India: 135- 139, 2004
 7. Antibacterial activity of *Parkia javanica* – an indigenous medicinal plant of Tripura. Rupanjali Saha, *Samir Kumar Sil*, Bikas Mohanta and Biswanath Dinda. *J. Ecotoxicol. Environ. Monit.* Vol. 17(1): 15- 19, 2007.
 8. Antibacterial and phytochemical evaluation of *Evolvulus nummularius*, *Mimosa pudica* and *Oroxylum indicum* from India. *Samir Kumar Sil*, Rupanjali Saha, Biplab Ghosh, Bikash Mohanta and Biswanath Dinda. **African J. Biomed. Res.** Vol. 10: 83- 88, 2007.
 9. In vitro activity of *Parkia javanica* extract against *Leishmania donovani* parasite. Rupanjali Saha, Jayati Mookerjee Basu, Syamal Roy, Biswanath Dinda and *Samir Kumar Sil*. *J. Appl. Biosci.* Vol. 36 (1): 85 – 89, 2010.
 10. Growth inhibitory effect of *Evolvulus nummularius* extract on *Leishmania donovani* parasite. Rupanjali Saha, Biswanath Dinda and *Samir Kumar Sil*. **J Ecobiol.** 27(4) 335-340, 2010.
 11. Anti-proliferative activity of *Evolvulus nummularius* (L.) L., A medicinal plant of tripura, on doxorubicin resistant leukemia cells. Rupanjali Saha, Biswanath Dinda and *Samir Kumar Sil*. *J. Appl. Biosci.* 36(2):161-163, 2010.

12. Assessment of Nutritional status of Rural tribal children in Tripura. *Samir K. Sil*, S. Roy Sarkar, S. Saha, S. Roy. **Indian Pediatrics**, 48, 448-449, 2011
13. Nutritional Status of Urban Tripuri Tribal Boysof Agartala, Tripura, *Samir K. Sil*, S. Roy Sarkar, S. Saha, S. Roy. **Anthropologist**, 14(2): 167-169, 2012
14. Nutritional status of Tripuri tribal adolescent boys of West Tripura district. *Samir K. Sil*, S. Roy Sarkar, S. Saha, S. Roy. **Indian pediatrics** 49(6):494-5, 2012
15. Host plant based biological and genetic variations northeast India, P arichitaroychaudhuri, *Samir K. Sil*, B K Agarwala. **J Appl. Biocsi**.38(2) 132-138, 2012
16. Somatotype of non-athlete tribal school boys of West Tripura District, Tripura Sandeep Roy Sarkar, *Samir Kumar Sil*, **Biolife** 2 (4), 1365-1370, 2014
17. A Rare HBV Subgenotype D4 with Unique Genomic Signatures Identified in North-Eastern India –An Emerging Clinical Challenge?, Priyanka Banerjee, Rajiv Kumar Mondal, Madhuparna Nandi, Sumantra Ghosh, Nabendu Chakraborty, Swatilekha Bhattacharya, Arindam RoyChoudhury, Soma Banerjee, Amal Santra, *Samir Kumar Sil*, Abhijit Chowdhury, Pradip Bhaumik, Simanti Datta. **Plos One**, 9(10), 2014.
18. Prevalence Of Hepatitis B In Tripura: A Community Based Study, Pradip Bhaumik, *Samir Kumar Sil*, Kalyan Debnath, Swatilekha Bhattacharjee, **Journal of evidence based Medicine and Healthcare**,1(17) , 2156-2161, 2014.
19. Somatotype of Tripura Tribal adolescent Boys (aged 8 to 16 years) of Tripura, North-east India. Sandeep Roy Sarkar, *Samir Kumar Sil*. In: Chakraborty D, editor. User Centered Design and Occupational wellbeing. 1st ed. New Delhi. McGraw Hill Education (Ind) Pvt. Ltd. Pp. 727-31, 2014 [ISBN (13) 978-93-392-1970-3, (10) 93-392-1970-8]
20. Hepatitis B and Hepatitis C Virus Co-infection among Human Immunodeficiency Virus Infected Patients of Tripura, Pradip Bhaumik, Prasun Bhattacharjee, *Samir Kumar Sil*. **International Journal of Scientific Study**. September , 3 (6), 77-80, 2015
21. Anthropometric Assessment of Nutritional Status of Adolescents in Rural School of Unokoti District of Tripura, North-East India MJ Uddin, Samir K. Nag, *Samir Kumar Sil*, **Anthropologist** 19 (1), 277-284, 2015
22. Prevalence of hypertension among boys (6-18 years) belonging to Tripuri tribal of Tripura. Sandeep Roy Sarkar, *Samir Kumar Sil*, **Int J Sci Res**, 4, 14-16, 2015.
23. Body Physique in Bengali adolescent boys from West Tripura District, Tripura, India, Sandeep Roy Sarkar, *Samir Kumar Sil*, **Int J Bioassays**, 4, 3684-88, 2015
24. Prevalence of thinness among rural adolescent Bengali school girls of North Tripura., S. Saha, *Samir Kumar Sil*, **Int J Sci Appl Res**, 2, 56-58, 2015.
25. Host based specialization in *Aphis gossypii* glover, evidenced from DNA barcode studies from Tripura, North-East India., P. Ray Choudhury, S Basak, *Samir Kumar Sil*, **J Appl Biosci**, 41, 12-18, 2015.

26. Nutritional status of the rural Bengali adolescent boys of Tripura. Sandeep Roy Sarkar, *Samir Kumar Sil*. **Indian Journal of Pediatrics**. DOI: 10.1007/s12098-015-1856-6, 2015.
27. Changing Trends of Candida Isolates and their Antifungal Susceptibility Pattern in Vulvovaginal Candidiasis Cases of Tripura, North East India. JB Mullick, T Majumdar, J Ray, *Samir Kumar Sil*. **Journal of Evolution of Medical and Dental Sciences**; 4 (94): 15918-22, 2015.
28. Studies on ns5 18s rDNA based molecular phylogenetic analysis and antibacterial properties of *Eutyphoeusgammiei*, an earthworm species endemic to north east India. Madhusudan Debnath, Parichita Roy choudhury and *Samir Kumar Sil*, **World journal of pharmacy and pharmaceutical sciences**, 5(2), 1357-1364, 2016.
29. Antibacterial activity of *Parkia javanika* : Studies on MIC, MBC, Growth curve Analysis and ROS Generation on Four *Vibrio cholerae* strains, **Int. J. Curr. Microbiol. App. Sci**, 5(8):538-544, 2016.
30. Antibacterial Activity of *Evolvulus nummularius* Against Standard ATCC Gram Positive and Gram Negative Strains: Studies on MIC, MBC, Growth curve Analysis and ROS generation. **International journal of Pure and Applied Bioscience**, 4(4),205-211, 2016.
31. Studies on nutritional status in rural Tripuri tribal adolescent boys of Tripura on the basis of Mid-upper arm circumference and BMI. SR Sarkar, *Samir Kumar Sil*. In: Sen J, Mondal N editor. *Nutrition and Health Among Tribal Populations of India: A Bio-cultural Approach*. 2016.
32. Ladybird Larvae, *Coelophorabisselata* Mulsant (Coleoptera: Coccinelladae) as a source of fibrinolytic enzyme. P Roy Choudhury, S Saha, *Samir Kumar Sil*. **Asian journal of Biological and Lif Sciences**, (5): 131-134, 2016.
33. Determination of Virulence Factors and Biofilm Formation Among Isolates of Vulvovaginal Candidiasis, T Majumdar, JB Mullick, R Bir, J Roy, *Samir Kumar Sil*. **Journal of Medical Science**, 2: 53-58, 2016.
34. Increased ROS Generation: Implication in Antibacterial Activity of *Evolvulus nummularius* against multidrug resistant Gram Negative Bacteria strains, S Saha, A Das, A Debnath, S Begam, S Sen, S Majumder, *Samir Kumar Sil*, *International journal of current microbiology and applied sciences*, 6(1): 100-107, 2017
35. A study on various *Neisseria gonorrhoeae* phenotypes circulating in Tripura, Indian Journal of Dermatology, Venereology, and Leprology, T Majumdar, JB Mullick, R Bir, S Hore, *Samir Kumar Sil*, *Indian Journal of Dermatology, Venereology, and Leprology*, 83: 499-501, 2017
36. In-vitro wound healing activity of *Parkia javanica* on human keratinocyte (HaCat) cell line. Susmita Saha, Manikarna Dinda, Parimal Karmakar and *Samir Kumar Sil*. 2017. *Trends in frontal areas of plant science research*. Narosa publishing house: 289-293.
37. Nutrient content of native earthworm, *Eutyphoeusgammiei* (beddard) of Tripura (India). Madhusudan Debnath, Priyasankar Chaudhuri, Pradosh Prasad Chakraborty and *Samir*

Kumar Sil : Int J Pharm Sci Res; 8(11): 4832-38. 2017, doi: 10.13040/IJPSR.0975-8232.8(11).4832-38.

38. Antibacterial activities of *Parkia javanica* extract against multidrug resistant gram negative bacteria predominantly found in skin wound. S Saha, P Karmakar and *Samir Kumar Sil*. Int J Pharm Bio Sci. 8(1): 96-102, 2018.
39. Reactive Oxygen Species as possible mediator of antimicrobial activity of *Parkia javanica*, against bacterial species predominantly found in chronic wound. *Samir Kumar Sil*, Susmita Saha and Parimal Karmakar. 2018. J Drug Delv. Therap. 8(1):43-47
40. Immunomodulatory effect of *Parkia javanica* extract on intracellular expression of IL-6, IL-8, IL-12 and TNF- α . S Saha, M Dinda, P Karmakar and *Samir Kumar Sil*. 2018. J Drug Delv. Therap. 8(3):58-63, 2018.
41. In vitro toxicity studies on the extract of medicinal plant *Evolvulus Nummularius* as a potent microbicidal candidate. Basu Mullick Jhinuk, Reddy KVR, Susmita Saha, Bashir Tahir, Samrat Hore, *Samir Kumar Sil*. J Drug Delv. Therap. 8(4):229-236, 2018.
42. Chloroform fraction of *Parkia javanica* bark is the most potent solvent fraction regarding antibacterial activity against standard bacterial species commonly found in skin wound. S Saha, P karmakar and *Samir Kumar Sil*. Int. J Pharm Bio Sci. 8(3): 641-647, 2018.
43. Chloroform fraction of *Parkia javanica* bark possesses antibacterial activity against multidrug resistant gram negative bacteria predominantly found in skin wound. S Saha, P karmakar and *Samir Kumar Sil*. J Drug Delv. Therap. 8(5), 2018.
44. A comparative study on ethno medicinal and nutraceutical potentials of the leaves of three species of genus *Ipomea* from Tripura, NE-India. Md. Jashim Uddin, Prasenjit Patari, Samir Kumar Nag and *Samir Kumar Sil*. Journal of Pharmacognosy and Phytochemistry; 7(1): 2073-2082, 2018.
45. Anti-platelet aggregation assay of homogenate of *eutyphoeusgammiei*- a native earthworm of Tripura, north-east India, Madhusudan Debnath, Shrimati Dharmapal Shetty, *Samir Kumar Sil*. Int. J. Life Sc. Pharma Res. 8(3) : 17-23, 2018
<http://dx.doi.org/10.22376/ijpbs/lpr.2018.8.3.P17-23>
46. Wound healing promoting activity of Earthworm, *Eutyphoeusgammiei* (Beddard): in vitro studies on human skin keratinocyte cell line (HaCat). JDDT 8(6):155-8. 2018.
<http://jddtonline.info/index.php/jddt/article/view/2036>
47. First report on fibrinolytic and thrombolytic activity of *eutyphoeusgammiei* an earthworm species collected from tripura, northeast India, Madhusudan Debnath, Susmita Saha, *Samir Kumar Sil*. **Asian Journal of Pharmaceutical and Clinical Research**, 11, (11), pp. 236-40, 2018. doi:10.22159/ajpcr.2018.v11i11.27739.
48. Anti-inflammatory effect of extract of earthworm – *Eutyphoeusgammiei*, from Tripura, northeast India, M Debnath, R Ghosh, D Bhattacharjee, S Bhattacharjee, *Samir Kumar Sil*, IJPBS 8 (2): 622-627, 2018.
49. First Report on Frequency of Sexually transmitted infections in Tripura , North East India-teritary Referred Center Study. Jhinuk Basu Mulick, Tapan Majumdar, Joyanta

Roy, Shyamal Kanti Chakraborty, Sanjib Debnath, Somrat Hore and *Samir Kumar Sil*. Journal of Evaluation of Medicinal and Dental Sciences, 8(27): 2019

50. Activity of the medicinal plant *Parkia javanica* against multidrug resistant *Neisseria gonorrhoea* and other clinical isolates. Jhinuk Basu Mallick, Tapan Majumdar, Kudumula Venkata Rami Raddy, Sumita Mukherjee and *Samir Kumar Sil*. **Asian Journal of Pharmaceutical and Clinical Research** 12(9):83-86. 2019. DOI: 10.22159/ajpcr.2019.v12i9.33654
51. A Comparative Study on Fat Pattern between Tribal and Non-tribal Girls of Tripura, North-East India, Shilpi Saha & *Samir Kumar Sil*, Indian J Pediatr. 86(6): 508–514. 2019.
52. Cellular Basis of Wound Healing Activity of *Parkia javanica* (LAMK) MERR: Invitro and In vivo Studies. Proceedings of International Conference on Wound Care, Tissue Repair & Regenerative Medicine. Feb 25-26, Prague, CHECKSLOVAKIA. 2019
53. Ethnomedicinal survey and determination of total alkaloids and phenolics in selected edible plants of Tripura, India. Md. Jashim Uddin, Bikash Debnath, Prasenjit Patari, Samir Kumar Nag, *Samir Kumar Sil* and Kuntal Manna, **Journal of Medicinal Plants Studies**, 9(2): 123-131: 2021. DOI: <https://doi.org/10.22271/plants.2021.v9.i2b.1263>.
54. Anti-colon Cancer Activity of *Parkia javanica* (Lamk.) Merr. Bark Extract: An In-vitro Study. Partha Saha, Susmita Saha, and *Samir Kumar Sil*, **International Journal of Pharmaceutical Sciences and Drug Research**, 536-42: 2021.
55. Studies on Substrate Specificity of the Enzyme Laccase: an in-Silico Approach. Kanak Chakraborty, Koushik K Hazarika, *Samir Kumar Sil* and Arabinda Ghosh, **Trends In Carbohydrate Research**, 14(3): 2022.
56. Molecular Docking of Natural Compounds from Fenugreek Plant (*Trigonella Foenum-Graecum* L.) for Investigating the Potential Inhibition of Alpha-Amylase and Alpha-Glucosidase of Type 2 Diabetes. Kanak Chakraborty, Partha Saha & *Samir Kumar Sil*, **Trends in Carbohydrate Research**, 14(3): 2022.
57. Oroxylin A: A Promising Flavonoid for Prevention and Treatment of Chronic Diseases. Anjana Sajeev, Mangala Hegde, Sosmitha Girisa, Thulasidharan Nair Devanarayanan, Mohammed S. Alqahtani, Mohamed Abbas, *Samir Kumar Sil*, Gautam Sethi, Jen-Tsung Chen and Ajaikumar B. Kunnumakkara, **Biomolecules**, 12(9):1185: 2022.
58. A Silver Iodide Nanoparticle Containing Plant Extract-based Gelatinous Composite for Antibacterial Coating Applications, Sumati Malik, Susmita Saha, *Samir Kumar Sil*, Chitraniva Datta & Subhojit Das, **Applied nanoscience**, 12(12):3908-1: 2022. DOI: <https://doi.org/10.1007/s13204-022-02694-1>.
59. Physico-chemical analysis and antioxidant properties of tinctures of *Diospyros melabarica* (Desr.) Kostel: A preliminary report. Md Jashim Uddin, Prasenjit Patari, Samir Kumar Nag & *Samir Kumar Sil*, Materials Today: Proceedings, 65: 2723-30, 2022. DOI: <https://doi.org/10.1016/j.matpr.2022.05.574>.
60. Bromelain Mediates Apoptosis in HeLa Cells via ROS-independent Pathway. Ayantika Pal & *Samir Kumar Sil*, **Advances in Traditional Medicine**, 23(2):605-16: 2023. DOI: <https://doi.org/10.1007/s13596-022-00638-2>.

61. Investigation of anti-proliferative and anti-angiogenic properties of *Parkia javanica* bark and fruit extracts in zebrafish. Rasik Dhakal, Krithika Kalladka, Achinta Singha, Dechamma Pandyanda Nanjappa, Jeshma Ravindra, Rajeshwari Vittal, *Samir Kumar Sil*, Anirban Chakraborty & Gunimala Chakraborty, **Plos one**, 18(7):e0289117: 2023. DOI: <https://doi.org/10.1371/journal.pone.0289117>.
62. Identification of 2,4-Di-tert-butylphenol (2,4-DTBP) as the Major Contributor of Anti-colon cancer Activity of Active Chromatographic Fraction of *Parkia javanica* (Lamk.) Merr. Bark Extract. Partha Saha, Dipshikha Sharma, Suvakanta Das, Saurav Kumar Dey & *Samir Kumar Sil*, **Biomedical and Pharmacology Journal**, 16(1):275-88, 2023. DOI: <https://dx.doi.org/10.13005/bpj/2609>.
63. Exploration of Rhinacanthone, a Natural Naphthoquinone, as a Potential Human Papilloma Virus E7 Oncoprotein Inhibitor (HPV-E7i) Through AI-Based Protein Modeling, Molecular Docking, and Simulation Studies. Kanak Chakraborty, Partha Saha, Arabinda Ghosh, *Samir Kumar Sil*. In: Singh, S.N., Mahanta, S., Singh, Y.J. (eds) Proceedings of the NIELIT's International Conference on Communication, Electronics and Digital Technology. NICE-DT 2023. Lecture Notes in Networks and Systems, vol 676. Springer, Singapore, 2023.
64. Influencing Factors and Stimulus-Sensitivity of Chitosan/Polymethacrylic Acid (CS/PMAA) Nanogels as Nanocarriers. Sulagna Bhattacharjee, Sulagna Bhattacharjee, Achinta Singha, Satyajeet Biswal, Ankan Das, Pratap Chandra Acharya, *Samir Kumar Sil* & Sachin Bhaladhare, **Polymer-Plastics Technology and Materials**, 1-6: 2024. DOI: <https://doi.org/10.1080/25740881.2024.2394831>.
65. Prebiotic levan type fructan from *Bacillus subtilis* PR-C18 as a potent antibiofilm agent: Structural elucidation and *in silico* analysis. Juanit Thomas, Payel Roy, Arabinda Ghosh, Megha Mete, *Samir Kumar Sil* and Deeplina Das, **Carbohydrate Research**, 538-109075, 2024. DOI: <https://doi.org/10.1016/j.carres.2024.109075>.
66. Green synthesis of chitosan gum acacia based biodegradable polymeric nanoparticles to enhance curcumin's antioxidant property: an *in vivo* zebrafish (*Danio rerio*) study. Achinta Singha, Krithika Kalladka, Mave Harshitha, Partha Saha, Gunimala Chakraborty, Biswajit Maiti, Akshath Uchangi Satyaprasad, Anirban Chakraborty & *Samir Kumar Sil*, **Journal of Microencapsulation**, 41(5):390-401: 2024. DOI: <https://doi.org/10.1080/02652048.2024.2362188>.
67. Physico-chemical Characterization and Antioxidant Activity of *Mucuna imbricate* (MI) DC. Ex Baker Tinctures. Md Jashim Uddin, Prasenjit Patari, Surochita Basu, *Samir Kumar Sil* & Samir Kumar Nag, Proceedings of 4th International Conference on Materials Science, Interactions, 2024. DOI: <https://doi.org/10.1007/s10751-024-02156-w>.
68. In silico Identification of Dual HDAC8 and MMP9 Inhibitors by Pharmacophore Modeling, Molecular Docking and Molecular Docking Simulation Studies for Development of Antitumor Agent. Kakali sarkar, Maria Debbarma, Sudhan Debnath, Rajat Ghosh & *Samir Kumar Sil*, Proceedings of 4th International Conference on Materials Science, Interactions, 2024. DOI: <https://doi.org/10.1007/s10751-024-02083-w>.
69. Targeted inhibition of colorectal cancer proliferation: The dual-modulatory role of 2,4-DTBP on anti-apoptotic Bcl-2 and Survivin proteins. Partha Saha, Mangala Hegde, Kanak Chakraborty, Achinta Singha, Nobendu Mukerjee, Deepshikha Ghosh, Ajaikumar

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 71. Cervical cytology abnormalities and associated genotype patterns of High-Risk HPV Infection in Women of Tripura, North-East India: A Hospital-Based Study. Amrapali Bhattacharya, Kanak Chakraborty, Partha Saha, Susmita Saha, Parichita Roychaudhuri, Jahar Lal Baidya, Arabinda Ghosh, Debaprasad Chakraborty, Sharmila Sengupta, Samir Kumar Sil, **American Journal of Epidemiology**, kwae364: 2024. DOI: <https://doi.org/10.1093/aje/kwae364>.
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 73. Repurposing of DrugBank molecules as dual non-hydroxamate HDAC8 and HDAC2 inhibitors by pharmacophore modeling, molecular docking, and molecular dynamics studies. Sarkar, Kakali, Sudhan Debnath, Rajat Ghosh, Deijy Choudhury, Kanak Chakraborty, Partha Saha, Achinta Singha, Addrita Nandi, Bidhan Goswami, Arabinda Ghosh & Samir Kumar Sil. **Journal of Biomolecular Structure and Dynamics**, 2024, 1-23. DOI: <https://doi.org/10.1080/07391102.2024.2428829>
 74. Dissecting the epigenetic orchestra of HDAC isoforms in breast cancer development : a review. Maria Debbarma, Kakali Sarkar, Samir Kumar Sil. **Medical Oncology**, 2024, Nov 12;42(1):1. DOI: 10.1007/s12032-024-02553-9. PMID: 39532757.
 75. Lipophilic Phenols In Cancer Therapy: Targeting Apoptosis And Angiogenesis. Addrita Nandi, Arabinda Ghosh, Samir Kumar Sil. **Afr. J. Biomed. Res.** Vol. 28(2s) (March 2025); 1453-1462.
 76. The interplay between angiogenesis and cervical cancer: a comprehensive review. Addrita Nandi, Arabinda Ghosh, Samir Kumar Sil. **Expert Review of Anticancer Therapy**. 2025 Jun 3. DOI: <https://doi.org/10.1080/14737140.2025.2501073>
 77. Lupeol: ethnopharmacological insights and therapeutic potential in human health. Achinta Singha, Anirban Chakraborty, Samir Kumar Sil. **3 Biotech**, 2025, 15:199. DOI: 3 <https://doi.org/10.1007/s13205-025-04325-2>.
 78. Glycans at the Forefront: Redefining Cervical Cancer Therapy Through Glycoscience. Kanak Chakraborty, Samir Kumar Sil, Susmita Saha. **Trends In Carbohydrate Research** Vol.17, No.2 (2025) 72-83. DOI: 10.13140/RG.2.2.24655.39840

Research publications (Books/ Chapters)

1. Sarkar SR, Sil SK. Somatotype of Tripura Tribal adolescent Boys (aged 8 to 16 years) of Tripura, North-east India. In: Chakraborty D, editor. User Centered Design and Occupational wellbeing. 1st ed. New Delhi. McGraw Hill Education (Ind) Pvt. Ltd. Pp. 727-31, 2014 [ISBN (13) 978-93-392-1970-3, (10) 93-392-1970-8]
2. Sarkar SR, Sil SK. Studies on nutritional status in rural Tripuri tribal adolescent boys of Tripura on the basis of Mid-upper arm circumference and BMI. In: Sen J, Mondal N editor. Nutrition and Health Among Tribal Populations of India: A Bio-cultural Approach. 2016. In press.

Seminar/Conference/Workshop/Refresher/Orientations etc. participated:

1. Production of Monoclonal antibodies against surface LPS of *Halicobacter jejuni*; January - June (6 months) 1991; National Institute of Cholera and Enteric Diseases. Calcutta.
2. UGC sponsored 16th Academic Staff Orientation Programme Dec.20-Jan18,1996. Academic Staff College, University of Calcutta.
3. Recent techniques in clinical cytogenetics and Molecular Human Genetics. Sept.16-Oct.3, 1996. ORGANIZED BY Dept of Genetics, Guru Nanak Dev University, Amritsar, Sponsor : DBT, Govt. of India.
4. Winter school on 'Human Genetics: Concepts, Paradigms and Methods'. 10-30 Jan.1998, IICB, Calcutta, Sponsor: DBT , Govt. of India.
5. 4th international symposium on genetics, health and Diseases, 1-4 December, 1998 Guru Nanak Dev University, Amritsar
6. Interactive Meet on Genomics Research in the New Millennium, 23-25 Feb. 2000 Centre for Biochemical Technology, Delhi.
7. Refresher course in Genetics and Evolution. 10-22 Sept.2001 University of Mysore, Sponsor: Indian Academy of Science.
8. Workshop-cum Training programme on Statistical Methods and Computer Programming 18 – 22 March, 2002, Indian Statistical Institute , Kolkata
9. REFRESHER COURSE IN LIFE SCIENCE, 12 Jan-01 Feb. 2003. ORGANIZED BY School of life science, Siksha-Bhawan, VISVA-BHARATI, SANTINIKETAN. Sponsor: University Grants Commission.
10. Workshop on Genetic Epidemiological Methods for Dissection of Complex Human Traits, June 2 – 11, 2003, organized by TCG-ISI center for population genomics, Kolkata and University of Pittsburg, Pittsburg, U.S.A.
11. Seminar on Biodiversity Conservation and Sustainable Utilization of Environmental resources. 10-11 January, 2004.
12. National symposium on Impact of Chemistry and society October 1-3 , 2004.
13. International conference on 'promotion and development of Botanicals with International coordination: exploring quality, safety, efficacy and regulations. February 25-26,2005, Kolkata , India.
14. 6th International Summer school on Immunology and Immunogenetics, All India Institute of Medical Sciences, New Delhi, Nov 16-19, 2009
15. International Conference on 'Emerging Areas of Chemistry', January 12 – 14, Organized by Department of Chemistry, Tripura University, 2011.

16. HFT LIVERCON 2011, National Conference, 23-24 April, at Agartala Govt. Medical College, Organized by Hepatitis Foundation of Tripura, 2011.
17. UGC sponsored National Seminar on 'Emerging Areas of Physical Education and sports Science', 25 June, Organized by Department of Physiscal Education and sports Science, Women's College, Agartala, 2011.
18. 'Soft computing in BioInformatics' Two weeks staff development programme, Sponsored by AICTE, 11-21July, organized by Computer Science and Engg. Department, Tripura Institute of Technology, 2011
19. 1st Annual International Conference on Advanced Research Physiology, 21-22 July, Singapore, organized by Global Science and Technology Forum Ltd. 2014.
20. Indian Science Congress for 101st session, Jammu, 2014.
21. Indian Science Congress for 103nd session, Mysore, 2016.
22. Invited Speaker: Induction Training of Faculty Development Programme, held at Tripura University, September 04 to October 03, 2018
23. Invited Speaker: 21 Days Refresher Course, held at Tripura University, 08 January to 28 January, 2019
24. Invited Speakers resource person: PMMMNMTT, held at Tripura University, 11 February to 24 February, 2020
25. One month International workshop on "Drug Discovery & Development (3rd Edition, 2022), 29th October to 22nd November, 2022.
26. Workshop on "Good Clinical Practice", 15th December, held at Midnapore Medical College & Hospital, West Bengal, 2022.
27. One month International workshop on "Drug Discovery & Development (3rd Edition, 2022), 29th October to 22nd November, 2022.
28. Indian Science Congress for 108th session, Nagpur, Maharashtra, 2023.
29. Speaker: Two Weeks Faculty Development Program on "Sustainable Development Goals: Transforming Society", 10th March to 23rd March, Conducted by Faculty Development Centre, Tripura University, 2023.
30. One month International workshop on "Epigenomics and Immunoinformatics", 14th March to 08th April, 2023.
31. One month International workshop on "Bioinformatics for Drug Discovery 2023", 20th May to 13th June, 2023.
32. 10 Days International Workshop on "Molecular Dynamics Simulation Analysis (Advance), 29th February to 10th March, 2024.
33. Speaker and Chairperson: NITTE – Namaste Conclave, National Conference on Health, Food Security and Environment in North East India: Issues & Challenges, 1st March to 2nd March, held at NITTE, Mangalore, 2024.
34. Resource Person & Speaker: Hands-on workshop on Morphological and Molecular Studies of Malarial Parasites and Vectors, 23rd March, Organized by Department of Human Physiology, Tripura University in collaboration with ICMR-NE RMRC, Dibrugarh, 2024.
35. Prof. B. B.Sarkar memorial oration award from Physiological Society of India, 2024 in PHYSICON 2024 organized at Tripura University, 15 – 17 November, 2014.

Seminar/conference/workshop organized as organizing secretary:

1. Organizing Secretary, XX Annual conference of Physiological society of India 14th Dec., 2008
2. Organizing Secretary, Workshop on introductory Statistical Analysis of Biological data 23-27 Feb, 2009

3. Organizing Secretary, Organizing secretary, Human Genetics-Techniques and Statistical analysis, 25-28 Nov. 2013.
4. Organizing Secretary, Organizing Secretary, North East Regional Workshop on Genetic analysis of complex traits, Feb 27-28, 2018
5. Organizing Secretary, North East winter school on Genetic analysis of complex traits. Organized at Tripura University. 27th -28th February, 2018
6. Organizing Secretary, Understanding Human Disease and Improving Human Health Using Genomics-Driven Approaches, organized at Tripura University in collaboration with National Institute of Biomedical Genomics (NIBMG). March 10 – 15, 2019.
7. Organizing Secretary, Hands-on workshop on Morphological and Molecular Studies of Malarial Parasites and Vectors, Organized by Department of Human Physiology, Tripura University in collaboration with ICMR-NE RMRC, Dibrugarh, 23rd March, 2024.
8. NITTE – Namaste Conclave, National Conference on Health, Food Security and Environment in North East India: Issues & Challenges, 1st March to 2nd March, held at NITTE, Mangalore, 2024.
9. Tripura University in collaboration with ICMR-NE RMRC, Dibrugarh, 23rd March, 2024.
10. NITTE – Namaste Conclave, National Conference on Health, Food Security and Environment in North East India: Issues & Challenges, 1st March to 2nd March, held at NITTE, Mangalore, 2024.
11. Organizing Secretary, XXXV Annual conference of Physiological society of India, 15 – 17 Nov., 2024 at Tripura University.

Awards won recently by the Research Scholars of the lab:

Sl. No.	Name of the Scholar	Name of the Award	Title of the Paper	Name of the event	Place of the Event	Date
1.	Partha Saha	Best Paper Presentation Award	Targeted inhibition of colorectal cancer proliferation: the dual modulatory role of 2,4-DTBP	National Conference on Higher Education and Research: Towards A Transformative And Sustainable Society	Tripura University	Oct 10- Oct 12, 2023
2.	Kakali Sarkar	Young Scientist Award for the Best Poster Presentation	In Silico Identification of Dual HDAC8 and MMP9 Inhibitors by Pharmacophore Modeling, Molecular Docking, and	Fourth International Conference on Material Science (ICMS-2024)	Tripura University	January 31, 2023- February 2, 2024

			Molecular Dynamics Studies for Novel Antitumor Agent			
3.	Addrita Nandi	Young Promising Female Scientist Award For Innovative Research Work	Deciphering anti-proliferative and anti-angiogenic properties of 2,4-DTBP, a natural lipophilic phenol, through <i>in vitro</i> (human cervical cancer cell line, SiHa) and <i>in vivo</i> (zebrafish model) studies	Fourth International Conference on Material Science (ICMS-2024)	Tripura University	January 31, 2023-February 2, 2024
4.	Kakali Sarkar	Medal Award for the Best Paper Presentation in the year 2024 among the young scientists	Novel Dual-targeting Non-hydroxamate Inhibitors of HDAC8 and HDAC2 for the Treatment of Cervical Cancer: An In Silico Drug Repurposing Approach	PHYSICON 2024, 35 th Annual Conference of the Physiological Society of India and a National Seminar on “Emerging Health Issues and Challenges: Perspective from Northeast India”	Tripura University	15-17 November, 2024
5.	Maria Debbarma	Best Poster Presentation Award	Targeting the E6-EGFR-HDAC2 Axis: An in-silico Approach to Develop Multi-targeted Inhibitor for Cervical Cancer	PHYSICON 2024, 35 th Annual Conference of the Physiological Society of India and a National Seminar on “Emerging Health Issues and Challenges: Perspective from Northeast India”	Tripura University	15-17 November, 2024

Membership/Positions in Learned Academic Bodies/Organizations

MEMBERSHIP

American Physiological Society (APS)

Indian Science Congress

Indian Society of Human Genetics
Physiological Society of India

Research projects

As PI

Title of the Project	Sponsored By	Amount	Duration
Molecular studies of some genetic diseases in Tripura	Department of Biotechnology (DBT), Govt. of India.	Rs. 6.0 lacs	Two years (1998-2000)
Molecular epidemiology of HPV and cervical cancer in Tripura: genetic variations and influencing HPV persistence and disease development BT/247/NE/TBP/2011	DBT New Delhi	1.07 Crore	May 2012-2013
Molecular and cellular studies on normal and diabetic wound healing activities of Parkia javanica, a medicinal plants of Tripura, north east India BT/468/NE/TBP/2013	DBT New Delhi	63.36 lakhs	2014-2017
Development of polyherbal based function biopolymer hydrogel for delivery of novel healing agents in excision and burn wound. Sanction Order No.: BT/PR25380/NER/95/1168/2017	DBT, Govt of India	73.0 lakhs	2018-2021
Exosome Mediated Targeted Delivery of Apoptosis-inducing Agents to Prostate Cancer BT/PR46332/NER/95/1970/2023	DBT, Govt of India	40.993 lakhs	2025-2028

As Co PI

Nutritional and cardio-respiratory status of tribal children of Tripura No.5/9/1024/2011-RNH	UGC	11.89 Lacs	March, 2012
Molecular epidemiology of Hepatitis B virus infection in Tripura' (No. 5/8/7/19-2006-ECD-I)	ICMR, New Delhi	70.0 Lacs	2010-2013
'Molecular epidemiology of Hepatitis B virus infection in Tripura' (No. 5/8/7/19-2006-ECD-I)	ICMR, New Delhi	70.00	2010-2013

Foreign Instrument Procured

1	DNA Electrophoresis System	Pec Lab, Germany	2.0 lac
2	Cold Centrifuge table top	Eppendorf, Germany	4.5 lacs
3	cold microcentrifuge	Eppendorf, Germany	3.5 lacs
4	Gel Documentation System	Made in England	4.8 lacs

5	Real Time PCR	Invitrogen, USA	9.0 lacs
6	Nano drop spectrophotometer	Eppendorf, Germany	5.5lacs
7	Micro centrifuge	Eppendorf, Germany	2 lacs
8	Biosafety cabinet	Esco, Singapore	4.5 lacs
9	-80 fridge	Esco, Singapore	4.8 lacs
10	-20 Fridge	Vestafrost	1.2 lacs
11	PCR	Applied Biosystem	2.5 lacs
12	PCR, verity	Applied Biosystem	3.8 lacs
13	CO2 incubator	Esco, Singapore	4.0 lacs
14	Inverted microscope	Divinter	2.3 lacs
15	PCR station	ESCO, Singapore	3.5 lacs
16	Weighing balance	Metler	2.0 lacs
16	Animal cell culture facility		

Research Supervisions (Scholar's Name, Topic and Status)

Candidates name	Title of the Thesis	Status
Rupanjali Saha	Studies on Bioactivities of <i>Parkia javanica</i> (Lamk.) Merr. And <i>Evolvulus nummularius</i> (L.)L.: Two medicinal Plants of Tripura	Awarded
Pradip Bhawmik	Molecular epidemiology of Hepatitis B virus in Tripura	Awarded
Sandip Roy Sarkar	Somatotype and Nutritional Status of the Tripuri Tribal and the Bengali Adolescent Boys (Age 8-16 years) of Tripura with reference to their Physical growth	Awarded
Jhinuk Basu Mallick	Incidence of sexually transmitted infections (STIs) in hospital patients of Tripura and evaluation of selected STI related antibacterial activity of <i>Parkia javanica</i> and <i>Evolvulus nummularius</i> with reference to their role in cellular immune responses in vitro.	Awarded
Madhusudan	Nutritional values, medicinal properties and molecular characterization of	Awarded

Debnath	endemic earthworm <i>Eutyphoeusgammiei</i> of Tripura, India.	
Shilpi Saha	Studies on physical growth, nutritional status and maturation of the Chakma and the Bengali girls (aged 6-18 years) of Tripura and their comparative analysis	Awarded
Susmita Saha	Molecular and cellular studies on wound healing activities of <i>Parkia javanica</i> plant of Tripura, North-East India	Awarded
Partha Saha	Molecular and cellular studies on anti colon cancer activities of <i>Parkia javanica</i> (Lamk.)merr., a medicinal plant of Tripura, North-East India	Awarded
Achinta Singha	Evaluation of wound healing, regenerative, and angiogenic properties of phytochemical loaded polymeric nanoparticle using cellular and animal models	Registered
Kanak Chakraborty	Molecular Studies on HPV Genotypes and Cervical cancer pathogenesis in the population of Tripura	Registered
Addrita Nandi	Deciphering anti-cervical cancer activity of natural phenolic compound 2,4- Di-tert butyl phenol in reference to apoptosis and anti-apoptotic Bcl-2 proteins	Registered
Kakali Sarkar	Class I histone deacetylase 2 and 8 specific drug designing for epigenetic control of cervical cancer	Registered
Bidhan Goswami	Study linking the glucose 6 phosphate dehydrogenase status with the severity of malaria in tribal population of Tripura and Ex-vivo evaluation of some small molecules on Primaquine mediated stress response on G6PD deficient cells	Registered

Post Doctoral Fellow:

Name	Fellowship	Title of the work	Duration
Dr. Ayantika Pal	SERB-NPDF Fellow	A Therapeutic Approach against Cervical Cancer using MSN Bromelain Nanoconjugate	2017-2019
Dr. Priyatosh Sarkar	DBT Research Associate	Development of Bioresorbable 3D scaffold from pet waste for tissue engineering application	2024-2026

Other Information (if any)**Production of Monoclonal antibodies**

Monoclonal Antibody was produced against surface LPS of *Halicobacter jejuni* under the guidance of Dr G. B. Nair, at National Institute of Cholera and Enteric Diseases, Kolkata.

Patent applied:

Ref. no.	Application no.	Date	Title
E-101/10027/2016-kol	201631013452	18.04.16	<i>Process of obtaining active compound from Parkia javanica for wound healing, antibacterial and anticancer activity</i>
E-18(iii)/47/2024/KOL	201731009651	30.01.2024	<i>Biodegradable polymeric curcumin nanoparticles and its method of preparation thereof.</i>