CURRICULUM VITAE

Pradipta Saha (Professor)

Department of Microbiology

The University of Burdwan

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Personal & Academic Profile:

Date of Birth: 24th April 1975

Nationality: Indian

Gender: Male

Marital Status: Married

Present designation: Professor

Present Address: Department of Microbiology, The University of Burdwan Golapbag, Burdwan-713104. West Bengal. India

Date of joining in the University of Burdwan: 01. 11. 2006

Educational Qualification	Subject	Year of passing	Institution	Board/University
Ph.D.	Microbiology	Awarded in May, 2007	Microbial Type Culture Collection and Gene Bank (MTCC), Institute of Microbial Technology (IMTECH), Chandigarh	Jawaharlal Nehru University, New Delhi, India
M.Sc.	Botany (Microbiology special paper) 1st Class	2000	University College of Science & Technology. Ballygaunge Circular Road. Kolkata	University of Calcutta
B.Sc.	Botany, Chemistry & Zoology (1st Class)	1998	Presidency College, Kolkata	University of Calcutta

Awards and Distinctions:

1. Awarded JRF & SRF by CSIR, India in 2001 & 2003 respectively.

3. Qualified UGC/NET (National Eligibility Test) conducted jointly by the Council of Scientific and Industrial Research (CSIR) and University Grants Commission (UGC), New Delhi, held in Dec 2000 and Graduate aptitude test (GATE 2000) with 90.99 percentile.
5. Awarded National Scholar on the basis of result of B.Sc. Botany (Honours) Part II held in 1998.

Total Experience:

Teaching: 18 years 7 months (As on 31st May, 2025)

Research (as Ph. D. guide):14 years

Served as HOD of the Department of Microbiology, BU: 2022- 2024

Total Number of publications: Total 51 publications

Research articles: 47 Review Articles: 01 Book Chapters: 03

Total Number of Ph. D. awarded: 06 (Six) from 2010 till date

Total No. of Registered Scholars enrolled for Ph. D. registration: 05

Extramural research activities:

S. No	Title	Served as	Sponsoring Agency and Officer Concerned	Period	Amount	Achievements
1.	"Degradation of Organophosphate (OP) pesticides ------independent approaches"	PI	SERB, New Delhi, GoI project no. SR/FT/LS-109/2010 dt. 28. 05. 2012	2012-2015	22.6 Lakhs	Published approx.6 publications. More than 25 gene sequences submitted in GenBank database Two students were awarded Ph. D.
2.	"Characterizing genome---------- an insilico approach"- No.	PI	DBT, GoI BT/PR41999/BID/7/995/2021, dt. 14.11.2024	November, 2024-2027	2.689 lakhs in first yr	Fund transfer from DBT is in progress.

Research Output: As per Google Scholar

Total Number of citations	1126
Total No. of citations in last 5 years	445
h-index	19
i10 index	27

Database submissions:

Bacterial Genome sequences: 06

Bacterial 16S rRNA gene sequences: > 250

Environmental 16S rRNA gene: ~ 60

Total number of Ph. D. thesis awarded

Sr. No.	Ph. D. Thesis Title	Name of the Student	Awarded year
1.	Microbial Degradation of Organophosphate Insecticide by the Selected Isolates	Dr Santanu Pailan	2017
2.	Comparative genomics for function prediction in Bacteria: A Bioinformatic Approach	Dr Debdoot Gupta	2018
3.	Exploring Biotechnological Potential of Bacterial Cultures isolated from soil of Nilgiri Hills, India	Dr Payel Choudhury	2018
4.	Microbial Degradation of 4-Nitrophenol	Dr Kriti Sengupta	2018
5.	Studies on Keratinolytic Bacteria and their possible application	Dr. Nasrin Sultana	2019
6.	Exploration of p-Nitrophenol degrading aquatic bacteria from selected water bodies of West bengal	Dr. Sk Aftabul Alam	2023

Collaborations:

Established through a Ph. D. student, Kriti Sengupta by Newton-Bhabha Fellowship in 2016 with Dr. David Whitworth at Institute of Biological, Environmental & Rural Sciences (IBERS), Aberystwyth University, Wales, United Kingdom.

List of Publications: Complete list from 2005 to 2024

1. **Saha, P.,** Krishnamurthi, S., Mayilraj, S., Prasad, G. S., Bora, T. C. & Chakrabarti, T. (2005). *Aquimonas voraii* gen nov., sp. nov., a novel gammaproteobacterium isolated from a warm spring of Assam, India. *Int J Syst Evol Microbiol* 55(4), 1491-1495.
2. **Saha, P**., Mondal, A. K., Krishnamurthi, S., Mayilraj, Bhattacharya, A. & Chakrabarti, T. (2005). *Paenibacillus assamensis* sp. nov., a novel bacterium isolated from a warm spring in Assam, India. *Int J Syst Evol Microbiol* 55, 2577-2581.
3. Mayilraj, S., Krishnamurthi, S., **Saha, P.** & Saini, H. S. (2006). *Kitasatospora sampliensis* sp. Nov., a novel actinobacteriumm solated from soil of a sugar-cane fielding India. *Int J Syst Evol Microbiol* 56, 519-522.
4. Mayilraj, S., Krishnamurthi, S., **Saha, P.** & Saini, H. S. (2006). *Rhodococccus kroppenstedtii* sp. Nov., a novel actinobacterium isolated from a cold desert of the Himalayas, India. *Int J Syst Evol Microbiol* 56, 979-982

5. **Saha, P.** & Chakrabarti, T. (2006). *Emticicia oligotrophica* gen nov., sp. nov., a new member of the family '*Flexibacteraceae*', phylum *Bacteroidetes*. *Int J Syst Evol Microbiol* 56, 991-995.
6. **Saha, P.** & Chakrabarti, T. (2006). *Aeromonas sharmana* sp. nov., isolated from a warm spring. *Int J Syst Evol Microbiol* 56, 1905-1909.
7. **Saha, P.** & Chakrabarti, T. (2006). *Flavobacterium indicum* sp. nov., isolated from warm spring water in Assam, India. *Int J Syst Evol Microbiol* 56, 2617-2621.
8. Mayilraj, S., **Saha, P.**, Suresh, K. & Saini, H. S. (2006). *Ornithinimicrobium kibbenrense* sp. nov., isolated from the Indian Himalayas. *Int J Syst Evol Microbiol* 56, 1657-1661.
9. S Krishnamurthi, A Bhattacharya, S Mayilraj, **P Saha**, P Schumann, T Chakrabarti (2009).
   Description of Paenisporosarcina quisquiliarum gen. nov., sp. nov., and reclassification of Sporosarcina macmurdoensis Reddy et al. 2003 as Paenisporosarcina macmurdoensis comb. nov. International journal of systematic and evolutionary microbiology 59(6), 1364-1370.
10. **P Saha**, S Krishnamurthi, A Bhattacharya, R Sharma, T Chakrabarti (2010). *Fontibacillus aquaticus* gen. nov., sp. nov., isolated from a warm spring. International journal of systematic and evolutionary microbiology 60 (2), 422-428.
11. S Pandey, **P Saha**, PK Barai, TK Maiti (2010). Characterization of a Cd2+-resistant strain of *Ochrobactrum* sp. isolated from slag disposal site of an iron and steel factory. Current microbiology 61 (2), 106-111
12. S Sadhu, **P Saha**, S Mayilraj, TK Maiti (2011). Lactose-enhanced cellulase production by *Microbacterium* sp. isolated from fecal matter of zebra (*Equus* zebra). Current microbiology 62 (3), 1050-1055. March, 2011
13. S Chatterjee, D Gupta, P Roy, NC Chatterjee, **P Saha**, S Dutta (2011). Study of a lead tolerant yeast strain BUSCY1 (MTCC9315). African Journal of Microbiology Research 5 (30), 5362-5372.
14. S Pandey, P Saha, S Biswas, TK Maiti (2011). Characterization of two metal resistant *Bacillus* strains isolated from slag disposal site at Burnpur, India. Journal of Environmental Biology 32 (6), 773-779.

15. S Ghosh, P Ghosh, **P Saha**, TK Maiti (2011). The extracellular polysaccharide produced by *Rhizobium* sp. isolated from the root nodules of *Phaseolus mungo*. Symbiosis 53 (2), 75-81.
16. S. Sadhu, **P Saha**, S. Mayilraj, TK Maiti (2012). Characterization of a *Bosea* sp. Strain sf5 (MTCC 10045) isolated from compost soil capable of producing cellulase. The Journal of Microbiology, Biotechnology and Food Sciences 2 (2), 576-591.
17. P Ghosh, S Ghosh, **P Saha**, S Mayilraj, TK Maiti (2012). The Ascorbic Acid Production in Root, Root Nodule and in Culture by *Rhizobium* sp isolated from the Legume *Cajanus cajan* (L.) Millspaugh. Journal of Pure and Applied Microbiology 6 (1), 241-248.
18. PK Ghosh, **P Saha**, S Mayilraj, TK Maiti (2013). Role of IAA metabolizing enzymes on production of IAA in root, nodule of *Cajanus cajan* and its PGP *Rhizobium* sp. Biocatalysis and Agricultural Biotechnology 2 (3), 234-239.
19. S Sadhu, **P Saha**, SK Sen, S Mayilraj, TK Maiti (2013). Production, purification and characterization of a novel thermotolerant endoglucanase (CMCase) from *Bacillus* strain isolated from cow dung. Springer Plus 2 (1), 1-10.
20. Amar Nath Chattopadhyay, Puja Singh, Arpita Dey, Pranab Roy, Sabyasachi Chatterjee, **Pradipta Saha**, Subhra Kanti Mukhopadhyay (2013). Study of a psychrotolerant amylolytic *Paenibacillus* sp. isolated from Arctic region. Journal of Microbiology and Biotechnology Res., 2013, 3 (4):24-31.
21. Arpita Dey, Amarnath Chattopadhyay, **Pradipta Saha**, Subhrakanti Mukhopadhyay, Tushar Kanti Maiti, Sabyasachi Chatterjee, Pranab Roy (2014). An Approach to the Identification and Characterization of a Psychrotrophic Lipase Producing Pseudomonas sp ADT3 from Arctic Region. Advances in Bioscience and Biotechnology 5(4), 322-332
22. Sengupta Kriti and **Saha Pradipta** (2014). Identification of a newly isolated *P*-nitrophenol Degrading strain characterized as Rhodococcus sp. BUPNP1. Journal of Environmental Research and Development 8(3), 431-436.
23. Amar Nath Chattopadhyay, Arpita Dey, Pranab Roy, Sabyasachi Chatterjee, **Pradipta Saha**, Subhra Kanti Mukhopadhyay (2014). Cold Active Extracellular Hydrolytic Enzyme Producing Culturable Heterotrophic Bacteria from NY-ÅLESUND, Arctic.

International Journal of Advanced Biotechnology and Research (IJBR). 01/2014; 5(3):271-278.

24. Dey A, Chattopadhyay A, Mukhopadhyay SK, **Saha P**, Chatterjee S, Tushar Kanti Maiti and Pranab Roy. (2014) Production, Partial Purification and Characterization of an Extracellular Psychrotrophic Lipase from Pseudomonas Sp. ADT3. J Bioremed Biodeg 5: 242. doi:10.4172/2155-6199.1000242.
25. Kriti Sengupta, Tushar Kanti Maiti, **Pradipta Saha** (2015). Degradation of 4-nitrophenol in presence of heavy metals by a halotolerant *Bacillus* sp. strain BUPNP2, having plant growth promoting traits Symbiosis 65(3): 157- 163. 3.1 impact factor as on April, 2023
26. Santanu Pailan, Debdoot Gupta, Snehal Apte, Srinivasan Krishnamurthi, **Pradipta Saha** (2015). Degradation of organophosphate insecticide by a novel *Bacillus aryabhattai* strain SanPS1, isolated from soil of agricultural field in Burdwan, West Bengal, India. International Biodeterioration and Degradation 103: 191-195. 4.907 impact factor as on April, 2023
27. Santanu Pailan and **Pradipta Saha** (2015). Chemotaxis and degradation of organophosphate compound by a novel moderately thermo-halo tolerant *Pseudomonas* sp. strain BUR11: evidence for possible existence of two pathways for degradation. . PeerJ 3:e1378; DOI 10.7717/peerj.1378. November, 2015 3.061 impact factor as on April, 2023
28. Rikta Dhali, Arpita Dey, Amar Nath Chattopadhyay, **Pradipta Saha**, Subhra Kanti Mukhopadhyay , Pranab Roy, Sabyasachi Chatterjee (2016). Isolation, characterization and study of amylase activity of micro-organisms from arctic soil sample. Accounts of Biotechnology Research 3(1): 0005-0015.
29. Debdoot Gupta, Samiddha Banerjee, Santanu Pailan & **Pradipta Saha** (2016). In silico Identification and characterization of a hypothetical protein of *Mycobacterium tuberculosis* EAI5 as a potential virulent factor. Bioinformation 12(3): 182-191. May 2016
30. Santanu Pailan, Kriti Sengupta, Urmimala Ganguly, **Pradipta Saha** (2016). Evidence of biodegradation of Chlorpyrifos by a newly isolated heavy metal tolerant bacterium

Acinetobacter sp. strain MemCl4. Environmental Earth Sciences 75:1019. DOI 10.1007/s12665-016-5834-8 May 2016.

31. Choudhury P, Jawed A, **Saha P** (2017). Optimization of phytostimulatory potential in *Bacillus toyonensis* isolated from tea plant rhizosphere soil of Nilgiri Hills, India. International Journal of Engineering and Science Invention. 6 (11); 13-18

32. Nasrin Sultana and **Pradipta Saha** (2017). Demonstrative evidence of crude keratinase from Stenotrophomonas sp. strain Norja-1 as detergent additive. Journal of Environment and Bio-Sciences, 2017: Vol. 31 (1):143-148. June, 2017.
33. Debdoot Gupta and **Pradipta Saha** (2017). Identification of a hypothetical protein as drug target in *Moraxella caterrhalis* involved in chronic obstructive pulmonary disease (COPD): An in silico comparative genomics approach. Journal of Environment and Bio-Science 2017: Vol. 31 (2): (397) 397-399. December, 2017

34. Choudhury P, **Saha P** (2018). NilgiriHills bacteria as resource for functions having biotechnological potential: preliminary report of study involving culture dependent approach Asian Journal of Microbiology, Biotechnology and Environmental Sciences. 20(1); 326-333
35. Nasrin Sultana and **Pradipta Saha** (2018). Studies on potential application of crude keratinase from *Stenotrophomonas* sp. for dehairing in leather processing industry. Journal of Environmental Biology. May 2018 39, pp. 324-330. UGC J No.
36. Afshan Sumera, Payel Chaudhury, Shafiul Haque, **Pradipta Saha**, Debarati Paul, Arshad Jawed (2018). Staphylokinase: A Potent Thrombolytic Agent. International Journal of Engineering and Science Invention 7(1), pp 15- 22.
37. Moumita Dutta, Bappaditya Pan, Koushik Ghosh, **Pradipta Saha**, Sumedha Roy (2018). Isolation of Fluoride Tolerant *Bacillus* spp (KT201599, KT201600) from the Midgut of *Drosophila melanogaster*: Their Probable Role in Fluoride Removal. Proceedings of the Zoological Society. https://doi.org/10.1007/s12595-018-0282-y
38. Kriti Sengupta, Martin T. Swain, Paul G. Livingstone, David E. Whitworth, **Pradipta Saha** (2019). Genome Sequencing and Comparative Transcriptomics Provide a Holistic View of 4-Nitrophenol Degradation and Concurrent Fatty Acid Catabolism by

Rhodococcus sp. Strain BUPNP1. Frontiers in Microbiology. *9:3209. doi: 10.3389/fmicb.2018.03209* (4th Jan, 2019 publication date).

39. K. Sengupta, M. Alam, S. Pailan1and **P. Saha** (2019). Biodegradation of 4-nitrophenol by a *Rhodococcus* species and a preliminary insight into its toxicoproteome based on mass spectrometry analysis. Journal of Environmental Biology. 40 pp. 356-362.
40. Jhuma Biswas, **Pradipta Saha**, Jhuma Ganguly and Amal K Paul (2020). Production and characterization of a bioactive extracellular homopolysaccharide produced by *Haloferax* sp. BKW301. Journal of Basic Microbiology. 1-12: DOI: 10.1002/jobm.20200049.
41. Sk Aftabul Alam and **Pradipta Saha** (2022). Biodegradation of p-nitrophenol by a member of the genus Brachybacterium, isolated from the river Ganges. 3 Biotech. 12:213: https://doi.org/10.1007/s13205-022-03263-7.
42. Sk Aftabul Alam and **Pradipta Saha** (2022). Microbial biodegradation of nitrophenols and their derivatives: A review. Journal of Experimental Biology and Agriculture (JEBAS). 10(4) pp. 743-766. DOI: http://dx.doi.org/10.18006/2022.10(4).743.766
43. Devanita Ghosh, David E. Whitworth3, Hendrik Schäfer, Srinivasan Krishnamurthi and **Pradipta Saha** (2022). Editorial: Microbial mitigation of hazardous compounds in agro-ecosystems. Frontiers in Microbiology 13:1015111. DOI 10.3389/fmicb.2022.1015111
44. Sk Aftabul Alam and **Pradipta Saha** (2022). Evidence of *p*-nitrophenol biodegradation and study of genomic attributes from a newly isolated aquatic bacterium *Pseudomonas asiatica* strain PNPG3. Accepted in Soil and Sediment Contamination: An International Journal December, 2022
45. Sk Aftabul Alam and **Pradipta Saha** (2022). Functional, and phylogenetic analysis of maleylacetate reductase of *Pseudomonas* sp strain PNPG3: An in silico approach. Accepted in Journal of Experimental Biology and Agriculture (JEBAS). December, 2022
46. **Pradipta Saha**, Mohan Chandra Joshi, Sangeeta Tiwari and Rahul Saxena (2023). Editorial: Linkage between membrane composition, cellular functions and membrane-mediates stress. Frontiers in Genetics 14:1015111. DOI 10.3389/fmicb.2022.1015111

47. Sk Aftabul Alam and **Pradipta Saha** (2023). Decolorization of P-Nitrophenol and draft genome sequence of *Pseudomonas* sp. strain PNPG3: A preliminary report. Journal of

Environmental Biology. 44 pp. 578 - 586 DOI : http://doi.org/10.22438/jeb/44/4/MRN-5061 July 2023

48. Sk Aftabul Alam and **Pradipta Saha** (2023). Chemotactic response of p-nitrophenol degrading Pseudomonas asiatica PNPG3 through phenotypic and genome sequence-based in silico studies. 3Biotech 13: 408. https://doi.org/10.1007/s13205-023-03809-3. November, 2023
49. D Gupta and **P Saha** (2024). In silico drug target identification and it's characterization in Alistipes spp. involved in human colorectal cancer: A pan genome analysis approach. International journal of Biology, Pharmacy and allied Sciences (IJBPAS), 13(2) pp. 566-576. https://doi.org/10.31032/IJBPAS/2024/13.2.7726

Book Chapters:

1. Pailan Santanu, Sengupta Kriti and **Saha Pradipta**. (2020). Microbial Metabolism of Organophosphates: Key for Developing Smart Bioremediation Process of Next Generation. In: Arora P. (eds) *Microbial Technology for Health and Environment. Microorganisms for Sustainability*, vol 22. Springer, Singapore. https://doi.org/10.1007/978-981-15-2679-4_14. Soft cover Book: ISBN: 978-981-15-2681-7; E Book: ISBN: 978-981-15-2679-4.
2. Das Joyasree, **Saha Pradipta** and Krishnamurthi Srinivasan (2022). Bacterial diversity from Garampani warm spring, Assam, In: Gunjal A. and Shinde S. (eds) *Microbial Diversity in hotspots*, 1st Edition. Academic Press, Elsevier, pp 177- 205. ISBN: 978-0-323-90148-2 https://doi.org/10.1016/B978-0-323-90148-2.00012-2.
3. **Pradipta Saha** (2022). Prokaryotic Taxonomy: A Practical outlook with emphasis on 16S rRNA gene sequence analysis. In: Ghosh A. R., Gupta, S., Mondal N. C., mondal S. and Dutta S. (eds) *Practical Manual on Environmental Analysis, Training manual*, 2nd Edition. Levant Books In association with Department of Environmental Science, the University of Burdwan, pp-240-251. ISBN: 978-93-88069-72-4.