

Teacher's Profile

Name: Dr. Souradip Basu

About

Email Id:- souradipbasu@gmail.com

Date of Joining:- 03.03.2025

Qualification: Ph.D.

Area(s) of Interest:- Microbiology, Genomics & Bioinformatics

Specialization/Research Interest:- Microbiome (Gut & Wastewater) analyses & Machine Learning

Teaching Experience:- 3 Years

Additional Information:

1. Engaged as a reviewer of the journal "The Microbe" of the Elsevier house (2025- Present).
2. Global Outreach- Postdoctoral Member of the American Society for Microbiology (2025- Present).

Scientific Data Contributions

Publicly deposited sequencing datasets (Biosample/SRA) with NCBI (Till date, 30 metagenomes, 3 partial gene sequence data (16S rRNA gene) and 4 Whole Genome Sequences (WGS) submitted in NCBI. Links are provided below:

Biosample: <https://submit.ncbi.nlm.nih.gov/subs/biosample/>

SRA: <https://submit.ncbi.nlm.nih.gov/subs/sra/>

Activities

Participation in Seminar/Conference/Workshop/Symposium

SI No	Year	Title	Organized By
1	2025	24th International Conference on Bioinformatics (InCoB 2025)	Bose Institute, Kolkata, India
2	2025	Frontiers in Biological Sciences (FIBS, Chapter VI)	St. Xavier's College (Autonomous), Kolkata
3	2024	International Symposium on Biotechnology (ISBT)	St. Xavier's College (Autonomous), Kolkata

Presentation

SI No	Year	Title	Organized By
1	2024	International conference of 21st All India Congress of Genetics and Genomics (AICGG,2024). Poster entitled: <i>“Insights into the therapeutic potential of Non-Timber Forest Products across the Ethnic Tribes, West Bengal, India”</i> .	Jadavpur University
2	2024	International conference of Modern Perspectives of Chemistry in Biology (MPCB,2024). Poster entitled: <i>“A Nutrigenomics Perspective into the Ancient Gut – Role of Non-Timber Forest Products”</i> .	St. Xavier’s College (Autonomous), Kolkata
3	2023	International conference of Student Conference on Conservation Science (SCCS 2023). Poster entitled: <i>“Insights into the Gut, Dietary Practices and Subsistence patterns from an Indian Foothill Tribe”</i> .	University of Cambridge
4	2023	International conference of Translating Human Evolutionary History to Precision Medicine (ADNAT 2023). Oral entitled: <i>“Correlating Diet Practices and Gut Bacterial Profiles from a few Ethnic Tribal groups of West Bengal, India”</i> .	Banaras Hindu University
5	2022	Indian Anthropological Congress (IAC) in collaboration with Department of Anthropology, University of Hyderabad organized by INCAA on Anthropology and Bio-Cultural Diversity in India: Retrospect & Prospect. Oral entitled: <i>“Insight into the applications of Pharmacogenomics on Gut Microbiome and Tribal Ethnomedicine”</i> .	University of Hyderabad
6	2021	International Symposium in Amrita Vishwa Vidyapeetham, CHARM at University of California San Diego, Bugwork Inc. and C-CAMP. Oral entitled: <i>“What does the tribal child gut microbiome tell us- a comparison of Bhutia, Mech and Sabar guts”</i> .	School of Biotechnology on Anti-Microbial Resistance

Publication

SI No	Year	Title (Journal/Book /Book Chapter/	Name as applicable	ISBN/ISSN
1	2025	Insights into Natural Product– Based Drug Discovery Using a Systems Biology Approach.	Bioactive Ingredients for Healthcare Industry Volume 1, Springer	ISBN 978-981-96-3662-4. DOI: https://doi.org/10.1007/978-981-96-3663-1_7
2	2024	Comparative Analysis of gut bacterial abundance and	Applied Biological Research, 26(4), 482-492	https://doi.org/10.48165/abr.2024.26.01.56

		dietary habits of two Ethnic Tribes of West Bengal, India - A pilot study.		
3	2024	Assessment of nutritional status, energy intake and energy requirement: a cross-sectional study among Sabar males of West Bengal, India.	Papers on Anthropology, 33(1), 47-71	http://dx.doi.org/10.12697/poa.2024.33.1.03
4	2024	Somatotype and Nutrient Intake of the Sabar Males of Purulia, West Bengal, India.	Samprataya, Vol 1, No 1	https://doi.org/10.21276/smprt.202407.1.1.a5
5	2024	Data Sources and Data Integration in Reproductive Health.	Systems Biology and Machine Learning Methods in Reproductive Health, CRC Press, Taylor & Francis Group	ISBN 9781003487548. DOI: 10.1201/9781003487548-2
6	2023	Computational modeling for exploring the therapeutic repertoire of lantibiotics.	In Advances in Biotechnology and Bioengineering, Lantibiotics as Alternative Therapeutics, Academic Press	ISBN 9780323991414. https://doi.org/10.1016/B978-0-323-99141-4.00012-6
7	2022	Microbial Enrichment in Global Wastewater Niches Under Impact of Climate Change- A Computational Study	Journal of Environment and Sociobiology, Vol 19, No 2, 221-243	Online ISSN: 2454-2601 Print ISSN: 0973-0834
8	2022	Repetitive Sequences in Monocot microRNAs- Targets for Future Bioengineering strategies for	Journal of Environment and Sociobiology, Vol 19, No 2, 295-306	Online ISSN: 2454-2601 Print ISSN: 0973-0834

		Climate Resilient Crops.		
9	2022	First report of gut bacterial dataset of a tribal Bhutia family from West Bengal, India.	Data in brief, 41, 107859	https://doi.org/10.1016/j.dib.2022.107859
10	2022	Tribal Ethnomedicine: a rich resource for future drugs.	Indigenous Traditional Knowledge, Ambika Prasad Research Foundation	ISBN: 978-81-955847-0-3
11	2021	Does Air Quality Influence the Spread of the Sars-Cov2 in Metropolitan Cities? -A Case Study from Urban India.	Current World Environment, 16(2)	http://dx.doi.org/10.12944/CWE.16.2.27
12	2019	Circular PVT1: an oncogenic non-coding RNA with emerging clinical importance.	Journal of clinical pathology, 72(8), 513–519	https://doi.org/10.1136/jclinpath-2019-205891

Achievement

Participation in industrial innovation

Co-developer of two translational research proposals submitted under the 24th BIRAC Biotechnology Ignition Grant (BIG) Scheme, 2024:

- ❖ **KnowGUT:** A personalized gut health monitoring platform integrating microbiome profiling with anthropometric predictors (BMI, MUAC) and mobile app-based dietary and probiotic recommendations for individualized interventions.
- ❖ **QWARG:** A rapid resistance detection kit for water samples, combining physicochemical and microbiological parameters (e.g., turbidity, B/P ratio, antibiotic resistance quotient) with mobile data visualization tools for real-time environmental surveillance.

Academic Achievements and Awards:

1. Second Prize – Oral Presentation, International Conference on Translating Human Evolutionary History to Precision Medicine (ADNAT 2023), Banaras Hindu University, Varanasi, India (10–12 March 2023). Presentation title: “Correlating Diet Practices and Gut Bacterial Profiles from a Few Ethnic Tribal Groups of West Bengal, India.”
2. Secured the second rank in first semester, Vidyasagar College, Kolkata.
3. Secured first rank in second, third and fourth semester, Vidyasagar College, Kolkata.
4. Overall placed second in Masters in 2017 order of merit.