

# Dr. Sayak Ganguli

Assistant Professor

Department of Biotechnology

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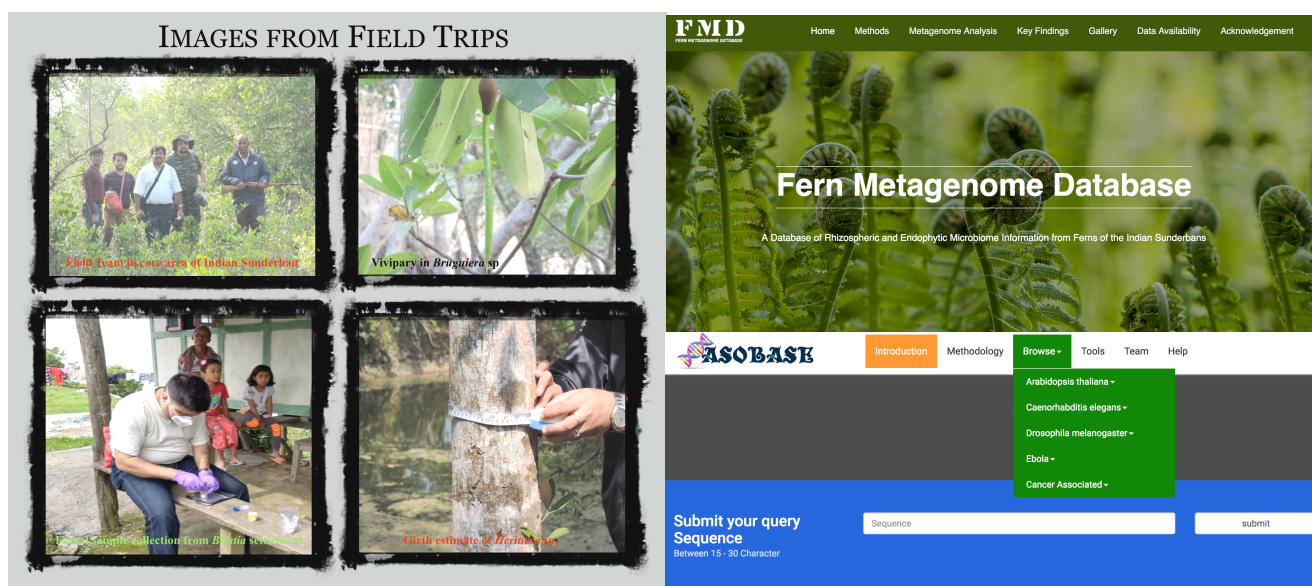


## About:

Biologist, with background in Plant Biology, specialization in Plant Tissue Culture and Micropropagation; Bioinformatics, Computational Biology, Genomics and Machine Learning

## Current Work Area(s):

1. Plant environment interactions in the Indian Sunderbans; a UNESCO World Heritage Site to formulate proper conservation and habitat restoration strategies for reducing the impact of climate change
2. Gut Microbial interactions with traditional diet practices of tribal members of Savar, Bhutia, Mech, Lodha, Toto etc. For predicting new measures for assessment of malnutrition among children and adults.
3. Genomics Guided Drug Screening
4. Waste water microbiome to establish a source sink relationship for transmission of antimicrobial resistance and devising a strategy for rapid public health monitoring.



*Figure: Images depicting field collection images and databases developed*

## Summary of Publications and Scientific Contributions:

1. International Publications: 75 {Last Two Years: 15; Average IF - 2.07}
2. Book Chapters in International Publishing Houses: 17
3. Poster Presentations (National and International): 112
4. Accession Numbers in Databases: 16 (CDS; Transcriptome and Metagenome)
5. Invited Talk and Oral Presentations (International): 7
6. Invited Talk and Oral Presentations (National and State Level): 14

**For Details Visit:** [Google Scholar](#)/ [ORCID](#)/ [RESEARCHGATE](#)

## Academic Achievements and Awards:

1. Aurobindo Guha Life Science Endowment (**GOLD MEDAL**) for Highest marks in BSc. Examination (2003)
2. **DST Award** for Invited lecture at Next Generation Sequencing Congress Asia (2012) at Singapore
3. **BEST POSTER AWARD** for the poster titled: **"Rhizospheric Metagenome Dataset of the terrestrial mangrove *Nypa fruticans* Wurmb from Indian Sunderbans"** at the National

Seminar on Water Conservation and Harvesting: Focusing Biodiversity Issues and Management held on 8<sup>th</sup> February 2020 at Jadavpur University, Kolkata.

4. **BEST POSTER AWARD** as Senior Author, for the poster titled "*An insight into the Rhizospheric Metagenomic Analysis of Excoecaria agallocha from Indian Sunderbans Mangrove Forest*" at APBGE, April 8 - 10 2021 (Poster presented by Mr. Subhadeep Manna)
5. Selected and participated as an **Early Career Researcher** in the Newton Bhabha Researchers Link Workshop titled "Building Ecological Resilience in Vulnerable Mangroves of the Indian Sunderbans: Sustainable and Equitable Management of Biodiversity and Ecosystem Services in the era of Climate Change" jointly organised by WBSU, INDIA and NEWCASTLE UNIVERSITY, UK, funded by DBT - GoI and British Council held in Indian Sunderbans 2<sup>nd</sup> to 6<sup>th</sup> January 2022.
6. **BEST POSTER AWARD** for the poster titled "*Evaluating the impact of tropical cyclones on the soil microbiome of Indian Sunderbans*" at One Day International Seminar on Recent Trends in Microbiology on 18th May 2022 at VJRC, Kolkata [Poster presenter Mr. Rohan Pal, BMBT Dissertation trainee]

### Supervision:

1. Ms. Meesha Singh, Ph.D. Scholar (Registered under Department of Microbiology, SXC Kolkata with Dr. MM Ghosh as PI)
2. Ms. Sarmistha Mukhopadhyay, Ph.D. Scholar (Enrolled under Department of Biotechnology, SXC)
3. Final Year Dissertation Project Trainees: SXC, Kolkata (4); MAKAUT (1); and Delhi University (1)
4. Summer Interns: SXC - Kolkata (8).

### Courses Taught:

1. Plant Biotechnology, Plant Tissue Culture. (Theory and Practical)
2. Plant Breeding, Genomics and Bioinformatics, (Theory and Practical)
3. Quantitative Genetics and Biostatistics (Theory)
4. Computer Aided Drug Discovery (Theory and Practical)
5. Plant Anatomy, Plant Taxonomy, Plant Pathology. (Theory and Practical)

### Fellowship:

Research Fellowship funded by the Department of Biotechnology - Biology Teaching Through Bioinformatics Scheme (DBT - BTBI; Govt. of India) from 2007 to 2015 at Presidency College and Presidency University, Kolkata

### Experience [Before Joining Current Position] [Teaching and Industrial Consultancy - 15 Years]

1. 2005 to 2014 at Barasat Government College (Visiting Faculty UG and PG).
2. 2006 to 2010 at Indian Institute of Social Welfare and Business Management (Visiting Faculty).
3. 2015 to 2016 at St. Xavier's College (Dept. of Microbiology) (Visiting Faculty - PG).
4. 2015 to 2019 at Lady Brabourne College (Visiting Faculty - PG).
5. APT Software Pvt Ltd. Kolkata (2010 to 2012).
6. ABPL (2016 - 2019).

### Funding:

Collaborative Projects funded by DST – Government of West Bengal; DST – SERB; with University of Calcutta (Anthropology and Biotechnology, PG Department of Microbiology, SXC Kolkata; PG Department of Zoology, Rammohan College, Kolkata)

### Life Member:

1. Alumnorum Societas, Kolkata (ALSOC)
2. Indian Science Congress Association (ISCA)
3. Social Environment and Biological Association (SEBA)

### Hobbies:

Collecting Folk Songs; Playing/Watching Cricket and Football, NGO activities.