

## BARASAT GOVERNMENT COLLEGE

## **TEACHER'S PROFILE**

DR SUBHADIPA SENGUPTA, DEPARTMENT OF BOTANY

	: Assistant Professor (Stage2)		
	: M.Sc., Ph.D.		
> DATE OF JOINING THE SERVICE	: Apr 21, 2010		
DATE OF JOINING THE INSTITUTION	: Jan 11, 2025		
Address for communication	: Newtown Heights, Tower B, Action Area III, New Town, Kolkata-700160		
> PHONE NO	: 9830494460		
	: bansubha@gmail.com		
	: Cell Biology Molecular Genetics and Plant Tissue Culture		
> TEACHING EXPERIENCE	: 15 years of UG and 6 years of PG teaching experiences.		
College Served	: (1) Bidhannagar College -10 years (03.03.2015-10.01.2025) (2) Barasat Govt. College [11.1.2025 - till date]		

ACADEMIC AND ADMINISTRATIVE EXPERIENCE	• 15 years of UG and 6 years of PG teaching experiences. Served as a committee member of IQAC for 4 years and convener of NIRF committee for the last 3 years.			
> TOPICS TAUGHT	: Cell Biology, Classical Genetics, Molecular Biology and Plant Biotechnology for both UG and PG courses			
AREA OF RESEARCH & INTEREST	• We are at the point moreover where Plant Microbe interactions can be manipulated for particular outcome such as plant disease resistance, plant improvements and environmental enrichments of the great importance. I am particularly interested on analyzing how Bacterial endophytes interact with host plants. In plant pathogenic interactions, pathogenic bacteria elicit thousands of defense responses in plants which have been thoroughly studied in the field of plant microbe interaction. At the other extreme, the molecular basis of endophytic interaction is still in its infancy. Nearly 3 lakh plant species that exist on earth is host to one or more endophytes. However, only a few plants have ever been studied for their endophytic community. The most important reason to study endophytes is due to their incredible ability to promote plant growth. Some of them also have the potential to increase soil fertility through nitrogen fixation, phosphate solubilisation and iron sequestering from soil. In last few years, a number of endophytic PGPB (plant growth promoting bacteria) has been found to be associated with different plant species some of which promotes plant growth by suppressing pathogens. This enhances low-input sustainable resistance against broad range of pathogenic organisms.			
> ONGOING PROJECT DETAILS	: NONE			
> AWARD RECEIVED	: Awarded J C Nag memorial Medal for securing highest marks from Presidency College in Botany major (2002)			
> PATENT DETAILS	: NONE			
> EXTRACURRICULAR ACTIVITIES	: NONE			
CAREER PROFILE	<ul> <li>PhD: Plant Molecular and cellular genetics section, Bose Institute, India (2010). Masters: Botany, Calcutta University, India (2004), Bachelors: Botany, Presidency College, India (2002).</li> </ul>			
	: ORCID iD: 0009-0001-0454-6778 https://orcid.org/0009-0001-0454-6778			

## PUBLICATION

JOURNAL PUBLICATION :		
( MAXIMUM TEN BEST PUBLICATION)	(1)	Subhadipa Sengupta, Ashmita Singha and Sayak Ganguli, 'Analysis of secondary structure and identification of internal repeats in miRNA precursor sequences of Saccharum officinarum, Saccharum sp. and Sorghum bicolor', Current Botany, January, 2025, ISSN: 2220-4822
	(2)	Md Majharul Islam · Santosh Kumar Jana · Subhadipa Sengupta · Sukhendu Mandal, 'Impact of Rhizospheric Microbiome on Rice Cultivation', Current Microbilogy, Springer, April, 2024, doi: 10.1007/s00284-024-03703-y
	(3)	Subhadipa Sengupta, Pankaj K. Singh , Sayak Ganguli, 'Insights into the core bacterial consortia of root endophytes in two cultivated varieties of rice in West Bengal', Environmental and Experimental Biology, 2022, ISSN 2255-9582
	(4)	Subhadipa Sengupta, Sayak Ganguli , Pankaj K Singh, 'Metagenome analysis of the root endophytic microbial community of Indian rice (O. sativa L.)', Genomics Data, February, 2017, http://dx.doi.org/10.1016/j.gdata.2017.02.010
	(5)	Nilanjana Banerjee, Subhadipa Sengupta , Amit Roy, Prithwi Ghosh , Kalipada Das, Sampa Das, 'Functional Alteration of a Dimeric Insecticidal Lectin to a Monomeric Antifungal Protein Correlated to Its Oligomeric Status', Plos One, April, 2011, doi:10.1371/journal.pone.0018593
	(6)	Subhadipa Sengupta, Dipankar Chakraborti , Hossain A. Mondal, Sampa Das, 'Selectable antibiotic resistance marker gene-free transgenic rice harbouring the garlic leaf lectin gene exhibits resistance to sap-sucking planthoppers', Plant Cell Reports , springer, January, 2010, DOI 10.1007/s00299-010-0819-7