

NARAJOLE RAJ COLLEGE

(NAAU Accredited B grade)





FACULTY PROFILE

BASIC PROFILE

Name: Dr. Prithwi Ghosh

Designation: Assistant Professor

Department: Botany

Unique ID:

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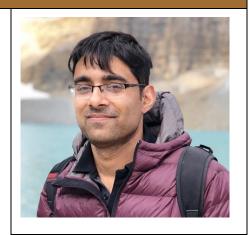
Academic Qualification: Ph. D

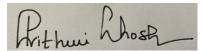
Gender: Male

Blood Group: AB+

Permanent Address: Surjanagar, Mirchoba, PO-Sripally, Bardhaman, WB

713103.





SERVICE HISTORY			
Year of Joining	2019		
Previous Employment, if any	N/A		
Experience in Teaching	N/A		
Area of Teaching:	Molecular Biology, Biotechnology, Plant Physiology.		
Area of Specialization:	Plant Molecular Biology and Biotechnology		
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Participation in Administrative activities: N/A

RESEARCH PROFILE				
Area of Research Interest:	Plant Microbe Symbiosis			
Research Experience (if any)	Postdoctoral research brief (2016-2019)			
	Studied the peptide-based dialogue controlling symbiotic compatibility			
	between Sinorhizobiummeliloti1021and Medicagotruncatula.			
	Investigated the role of Sinorhizobiummedicae WSM419 genes in improving			
	symbiosis between Sinorhizobiummeliloti Rm1021 and Medicagotruncatula			
	Jemalong A17 and with other legumes.			
	PhD research brief (2009-2016)			
	• Investigated the role of WRKY transcription factors in abiotic and biotic stress			
	(Fusarium stress) tolerance in Chickpea.			
	Studied the mechanism of action of the antifungal protein through proteomic			
	and cell biological approaches.			
	Biological safety assessment of insecticidal and antifungal proteins.			







Developed transgenic plants expressing insecticidal (*Colocasiaesculenta* tuber agglutinin, cry1Ac) and antifungal protein (modified *Allium sativum* Leaf Agglutinin) to control insect pests and fungal pathogens, respectively.

Conference/Seminar/ Workshop Organized: Title	Year	Role	Organizer
Golden Jubilee Symposium on Recent Trends in Contemporary Plant and Microbial Science	2010	Oral Presentation of the paper entitled 'Mutant form of insecticidal dimeric <i>Allium sativum</i> leaf agglutinin (ASAL) turned out to be a stable monomeric protein with antifungal activity'.	Department of Botany, The University of Burdwan, Bardhaman.
ISCB Annual Pulse/Cassava Network Meeting	2010	Poster presentation on 'Monomeric Mutant Form of <i>Allium sativum</i> Leaf Agglutinin (ASAL) exhibits strong Antifungal Activity.'	Bose Institute, Kolkata.
National Symposium on Evolving Plant Biology: From Chromosomes to genomics	2014	Poster presentation on 'Exploring and exploiting plants innate stratagem in developing resistance against fungal pathogen Fusariumoxysporumf.sp. ciceri Race1 (Foc1) of chickpea and Rhizoctoniasolani of rice'.	West Bengal Academy of Science & Technology, Kolkata.
ASM Intermountain Branch Meeting	2017	Poster presentation on 'Deciphering the role of proteases during Sinorhizobiummeliloti'.	Weber State University, Utah, USA.
Molecular Plant Sciences Hatch Umbrella Retreat	2019	Presented highlighted talk on 'Sinorhizobiummedicae WSM419 genes can improve symbiosis between Sinorhizobiummeliloti Rm1021 and MedicagotruncatulaJemalong A17 and with other legumes' symbiosis'.	Washington State University, Pullman, USA.
		ojects ongoing/completed:	
Title	Funding Agency	Year	Amount (Rs.)
N/A			



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Involvement in Academic/ Professional Organizations: N/A

SUPERVISOR: N/A ADJUDICATOR: N/A

ADJUDICATOR: N/A		
REVIEWER: N/A Involvement in Academic/ Professional Organizations: NA Editorial Board Member: N/A		
Books:	N/A	
Chapters in Books:	N/A	
Journals:	 Joydeep Chakraborty, Prithwi Ghosh, Senjuti Sen, Asish Kumar Nandi, Sampa Das. CaMPK9 increases the stability of CaWRKY40 transcription factor which triggers defense response in chickpea upon Fusariumoxysporum f. sp. ciceri Racel infection. Plant Molecular Biology. 2019, 100(4-5), 411-431. Diplai Sadhukhan, Prithwi Ghosh, J. Gomez-Garcia, Mathieu Rouzieres. A Co (II)-Hydrazone Schiff Base Single Ion Magnet Exhibiting Field Induced Slow Relaxation Dynamics. Magnetochemistry. 2018, 4(4), 56. Joydeep Chakraborty, Prithwi Ghosh, Senjuti Sen, Sampa Das. Epigenetic and transcriptional control of chickpea WRKY40 promoter activity under Fusarium stress and its heterologous expression in Arabidopsis leads to enhanced resistance against bacterial pathogen. Plant Science. 2018, 276:250-267. Joydeep Chakraborty, Prithwi Ghosh, Sampa Das. Autoimmunity in plants. Planta. 2018, 248(4):751-767. Ayan Das, Prithwi Ghosh, Sampa Das. Expression of Colocasiaesculenta tuber agglutinin in Indian mustard provides resistance against Lipaphiserysimi and the expressed protein is non-allergenic, Plant Cell Reports. 2018, 37(6), 849-863. Senjuti Sen, Joydeep Chakraborty, Prithwi Ghosh, DebabrataBasu, Sampa Das. Chickpea WRKY70 regulates the expression of a Homeodomain-Leucine Zipper (HD-Zip) I transcription factor CaHDZ12, which confers abiotic stress tolerance in transgenic tobacco and chickpea. Plant Cell Physiol. 2017, 58(11),1934-1952. Joydeep Chakroborty#, Senjuti Sen#, Prithwi Ghosh, Anindita Sengupta, Sampa Das. Homologous promoter derived constitutive and Chloroplast targeted expression of synthetic cry1Ac in transgenic chickpea confers resistance against Helicoverpaarmigera, Plant Cell Tiss Organ Cult. 2016, 125(3), 521-535. # Equal contribution. Prithwi Ghosh, Senjuti Sen, Joydeep Chakroborty, Sampa Das. Monitoring the efficacy of mutated Allium sativum leaf lectin in transgenic rice against Rhizoctoniasolani, BMC Biotechnology	



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	9. Prithwi Ghosh , Amit Roy, Daniel Hess, Anupama Ghosh, Sampa Das. Deciphering the Mode of Action of a Modified Allium sativum Leaf Agglutinin (mASAL), a Potent Antifungal Protein on Rhizoctoniasolani, BMC Microbiology. 2015, 15:237 .
	10. Prithwi Ghosh , Amit Roy, Joydeep Chakraborty, Sampa Das. Biological Safety Assessment of Mutant Variant of <i>Allium sativum</i> Leaf Agglutinin (mASAL), a Novel Antifungal Protein for Future Transgenic Application, J. Agric. Food Chem. 2013, 61, 11858–11864.
	11. 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. 2011, 6 (4), e18593. # Equal contribution.
Conf. Proceedings:	N/A

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