



Dr. Parinita Majumdar, M.Sc., PhD  
Assistant Professor  
Post-Graduate Department of Biotechnology  
St. Xavier's College, Kolkata  
Year of joining: 2026

**Ph.D** in Plant developmental biology (2013-2019)  
Department of Microbiology and Cell Biology, Indian Institute of Science, Bangalore, India

#### **Post-Doctoral studies**

Donald Danforth Plant Science Center, St. Louis, USA (2021-2023)  
National Post-Doctoral Fellow (2024-2026), Biochemistry department, University of Calcutta  
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**Specialization:** Plant developmental biology

**Teaching in the Department:** Microbial physiology, Microbial biotechnology and Applied plant biology

#### **Training programs**

- 1) Performed summer internship project titled as “**Detection and characterization of NDM-1 from the *Enterobacteriaceae* family causing neonatal sepsis**” in 2012 at NICED, Kolkata.

#### **Conferences/ Poster presentations**

##### **National**

- 1) Presented a poster entitled “**Comparison of the resistivity of two commercially available probiotic organisms, *Saccharomyces boulardii* & *Lactobacillus* sp. against commercially used antibiotics and the effect of honey in the enhancement of the growth of these organisms**” in 98<sup>th</sup> Indian Science Congress, 2011 held at Chennai.
- 2) Participated in “**Conference on Concepts and Mechanisms in Plant Development**” in 2014 held at NCBS, Bangalore.
- 3) Presented a poster entitled “**UBP14/TARANI positively regulates auxin response by degrading AUX/IAA transcriptional repressors in *Arabidopsis thaliana***” in SBC(I) meeting, 2018 held at MAHE Manipal.
- 4) Presented a talk on “**UBP14/TARANI positively regulates auxin response in *Arabidopsis thaliana* by degrading AUX/IAA transcriptional repressors**” in BTMO, 2019 held at IISc, Bangalore.

##### **International**

- 5) Presented a poster entitled “**TARANI, a DE-UBIQUITINASE regulates auxin response by maintaining ubiquitin homeostasis in *Arabidopsis thaliana***” in International Conference on Plant Developmental Biology (ICPDB), 2017 held at NISER, Bhubaneswar.
- 6) Presented a poster entitled “**TARANI/ *AtUBP14* regulates lateral root emergence by regulating the degradation of AUX/IAA transcriptional repressors in *Arabidopsis thaliana***” in International Conference on Arabidopsis Research (ICAR), 2018 held at Turku, Finland.

- 7) Presented a poster on “**The heterotrimeric G-protein beta subunit AGB1 modulates Arabidopsis developmental and physiological responses response to elevated CO<sub>2</sub>**” in ASPB conference, 2023 held at Savannah, USA.
- 8) Presented a poster on “**The heterotrimeric G-protein gamma subunit AGG1 regulates ABA dependant/independent redox homeostasis in Arabidopsis**” in IPG symposium 2023, USA.

### **Awards**

- 1) Qualified **GATE** in 2013.
- 2) Awarded **1<sup>st</sup> class 1<sup>st</sup> in M.Sc (Microbiology)** by the University of Calcutta in 2013.
- 3) Awarded **GARP** travel grant in 2018 by IISc, Bangalore.
- 4) Awarded **DS Kothari** post-doctoral fellowship in September, 2021 (Declined).
- 5) Awarded **ASPB (USA) 2023** travel grant.
- 6) Awarded best poster award at **IPG symposium 2023**, USA.

### **Publications**

- 1) **Majumdar P.** and Nath U. (2020) De-ubiquitinases on the move: an emerging field in plant biology. *Plant Biology* 22 (4), 563-572. DOI:10.1111/plb.13118.
- 2) **Majumdar P.**, Karidas P., Siddiqi I. and Nath U. (2020) The ubiquitin-specific protease TNI/UBP14 functions in ubiquitin recycling and affects auxin response. *Plant Physiology* 184, 1-15. DOI:10.1104/pp.20.00689.
- 3) **Majumdar P.**, Karidas P., Nath U. (2020) The TARANI/ UBIQUITIN PROTEASE14 protein is required for lateral root development in Arabidopsis. *Plant Signaling and Behavior*, DOI:10.1080/15592324.2020.1860386.
- 4) **Majumdar P.** and Niyogi S. (2020) ORF3a mutation associated with higher mortality rate in SARS-CoV-2 infection. *Epidemiology and Infection* 148: e262, 1-6. DOI: 10.1017/S0950268820002599.
- 5) **Majumdar P.** and Niyogi S. (2020) ORF3a mutations: an adaptive advantage for SARS-CoV-2 pathogenecity. *Journal of Cytokine Biology* 5:2, 31.
- 6) **Majumdar P.** and Niyogi S. (2021) SARS-CoV-2 mutations: the biological track way towards viral fitness. *Epidemiology and Infection* 149:e110. DOI: 10.1017/S0950268821001060.
- 7) Smythers, A.L., Bhatnagar, N., Ha, C., **Majumdar, P.**, McConnell, E.W., Mohanasundaram, B., Hicks, L.M. and Pandey, S., 2022. Absciscic acid-controlled redox proteome of Arabidopsis and its regulation by heterotrimeric G $\beta$  protein. *New Phytologist*, 236(2), pp.447-463. DOI: 10.1111/nph.18348
- 8) **Majumdar P.**, Torres Rodríguez M.D., Pandey S. (2023) Role of heterotrimeric G- proteins in improving abiotic stress tolerance of crop plants. *Journal of Plant Growth Regulation* DOI: 10.1007/s00344-023-10965-6.
- 9) **Majumdar P.**, Molla F., DasGupta M. (2025) From Inception to Maturation: Recent Insights in Nodule Organogenesis. *Physiologia Plantarum* 177 issue3, DOI: 10.1111/ppl.70277.
- 10) **Majumdar P.**, and DasGupta M. (2026) Molecular cartography of root nodule organogenesis: insights into the role of transcription factors. *Plant Molecular Biology* DOI: 10.1007/s11103-026-01754-2. (In Press).