CURRICULUM VITAE

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Educational Profile:

2010 **Ph.D** degree awarded from Bose Institute, DST, Govt of India. Registration done under Department of Life Science and Biotechnology Jadavpur University, Kolkata, India.

2004 Bachelor of Education in Life Sciences **(B.Ed)** from Calcutta University, India [1st Division; **67%**].

2002 Master of Science **(M.Sc)** in Botany. Specialization in Plant Physiology, Plant Biochemistry and Plant Molecular Biology from Calcutta University, India [1st Division; Marks obtained: **73.2%**].

2000 Bachelor of Science **(B.Sc)** in Botany (Honours) with Zoology (Pass) and Chemistry (Pass) from Calcutta University, Presidency College, Kolkata, India. [1st Division; Marks obtained: **66.12%]**

1997 Higher Secondary [1st Class; Marks obtained: **62%**]

1995 School leaving certificate Examination [1st Class; Marks obtained: **78.33%**]

Previous and Present Positions:

17th December to present: Assistant Professor at Department of Botany, Rabindra Mahavidyalaya, Champadanga, Tarakeswar, Hooghly, Pin-712401. West Bengal.

5th March 2010 to 15th December 2014: Research Associate at Bose Institute, Kolkata, India. **Experience of 4 years 9 months and 10 days as on 15th December 2014.**

25th August 2009-4th March 2010: Senior Research Fellow (Extended) at Bose Institute, Kolkata, India.

1st September 2006 to 24th August 2009: Senior research fellow, Bose Institute, Kolkata, India.

27th August 2004 to 31st August 2006: Junior Research Fellow, Bose Institute, Calcutta, India

Awards:

- Awarded Fellowship for qualifying **Joint CSIR-UGC National Eligibility Test** for **Junior research fellowship** at June 2003.

- Awarded National Scholarship for securing 28th position in B.Sc. Science from Calcutta University on 2000.

Complete list of publications

Published (Chronologically ascending)

1. Chakraborti D, Sarkar A, **Gupta S** and Das S **(2006)** Small and large scale genomic DNA isolation protocol for chickpea (*Cicer arietinum* L.), suitable for molecular marker and transgenic analyses. **African Journal of Biotechnology. 5: 585-589 (Impact Factor 0.57).**

2. Chakraborti D, Sarkar A, Majumder P, Mondal HA, **Gupta S** and Das S **(2007)** Mannose binding *Allium sativum* leaf lectin expression in chickpea for sap sucking insect pest resistance. M. C. Kharkwal (ed.) **Proceeding of the Fourth International Food Legumes Research Conference (IFLRC-IV), New Delhi, India.**

3. **Sumanti Gupta,** Dipankar Chakraborti, Rumdeep K Rangi, Debabrata Basu and Sampa Das **(2009)** A molecular insight into the early events of chickpea (*Cicer arietinum* L.) and *Fusarium oxysporum* f.sp *ciceri* (Race 1) interaction through cDNA-AFLP analyses. **Phytopathology. 99: No: 11 1245-1257 (Impact Factor 2.8).**

4. **Sumanti Gupta,** Dipankar Chakraborti, Anindita Sengupta, Debabrata Basu, and Sampa Das **(2010).** Primary metabolism of chickpea is the initial target of wound inducing early sensed *Fusarium oxysporum* f. sp. *ciceri* Race I. **Plos One 5: No: 2 e9030 (Impact Factor 3.5).**

5. **Sumanti Gupta,** Dipankar Chakraborti, Debabrata Basu and Sampa Das **(2010).** In search of Decoy/Guardee to *R* Genes: deciphering the role of sugars in defense against *Fusarium* wilt in chickpea. **Plant Signaling and Behaviour 5: 9 1-7 (Impact Factor 2.0).**

6. Rumdeep K Grewal, **Sumanti Gupta** and Sampa Das **(2012)**. *Xanthomonas oryzae* p. v. *oryzae* triggers immediate transcriptomic modulations in rice. **BMC Genomics, 13:49 (Impact Factor 4.04).**

7. Hossain Ali Mondal[#], Amit Roy[#], **Sumanti Gupta,** Anindita Sengupta and Sampa Das **(2012).** On a look out for molecular solutions in homopteran pest management; exploring the potentiality of *Amorphophallus paeonifolius* tuber lectin. **American Journal of Plant Sciences 3: 780-790 (Impact Factor 0.96).** ([#] Equal contribution).

8. **Sumanti Gupta** and Sampa Das (**2012)**. Exploring the defensive roles and regulations of GNA domain containing monocot mannose specific lectins. **Science and Culture 78: No: 5-6, 233-241. Article figure selected for cover page.**

9. Moniya Chatterjee, **Sumanti Gupta**, Anirban Bhar and Sampa Das **(2012).** Optimization of an efficient protein extraction protocol compatible with two dimensional electrophoresis and Mass spectrometry from recalcitrant phenolic rich roots of chickpea (*Cicer arietinum* L). **International Journal of Proteomics. (doi: 10.1155/2012/536963).**

10. **Sumanti Gupta,** Anirban Bhar, Moniya Chatterjee and Sampa Das **(2013).** *Fusarium oxysporum* f. sp. *ciceri* Race I. induced redox state alterations are coupled to downstream defense signaling in root tissues of chickpea (Cicer arietinum L.). **Plos One 8: No 9: e73163 (Impact Factor 3.5).**

11. **Sumanti Gupta,** Anirban Bhar and Sampa Das **(2013).** Understanding the molecular defence responses of host during chickpea-*Fusarium* interplay: where do we stand? **Functional Plant Biology (online early issue) (http://dx.doi.org/10.1071/FP13063) (Impact Factor 2.5).**

12. Amit Roy, **Sumanti Gupta**, Daniel Hess, Kali Pada Das and Sampa Das **(2014).** Binding of insecticidal lectin Colocasia esculenta tuber agglutinin (CEA) to midgut receptors of Bemisia tabaci and Lipaphis erysimi provides clues to its insecticidal potential. **Proteomics. 14: 1646-1659 (Impact Factor 3.97).**

13. Moniya Chatterjee*, **Sumanti Gupta***, Anirban Bhar, Dipankar Chakraborti, Debabrata Basu and Sampa Das **(2014).** Analysis of root proteome unravels differential molecular responses during compatible and incompatible interaction between chickpea (*Cicer* arietinum L.) and *Fusarium oxysporum* f.sp *ciceri* Race 1 (Foc1). **BMC Genomics, 15: 949 (Impact Factor 4.04)** (* Equal contribution).

14. Anirban Bhar, Sumanti Gupta, Moniya Chatterjee, Senjuti Sen and Sampa Das (2016). Differential expressions of photosynthetic genes provide clues to the resistance mechanism during Fusarium oxysporum f.sp. ciceri race 1 (Foc1) infection in chickpea (Cicer arietinum L.). **European Journal of Plant Pathology, 148, 533-549 (ISI Impact Factor 1.73).**

15. Sumanti Gupta, Anirban Bhar, Moniya Chatterjee, Debabrata Basu and Sampa Das (**2017**). Transcriptomic dissection reveals wide spread differential expression in chickpea during early time points of Fusarium oxysporum f. sp. ciceri Race 1 attack. **PLoS ONE 12(5), e0178164. (ISI Impact Factor 3.5).**

16. 16. Anirban Bhar, Moniya Chatterjee, Sumanti Gupta Sampa Das (**2018**). Salicylic Acid Regulates Systemic Defense Signaling in Chickpea during Fusarium oxysporum f. sp. ciceri Race 1 Infection. **Plant Molecular Biology Reporter, 36, 162–175 (ISI Impact Factor 1.9).**

17. Jayita Saha and **Sumanti Gupta. (2022).** Molecular characterization, evolutionary and phylogenetic analyses of rice ACT/BAT-type amino acid transporters. **Computational Biology and Chemistry, 100, 107745. (IF 3.1)**

18. Ghosh S, Purohit A, Hazra A, Mukherjee A, Bhar A, **Gupta S**, Chaudhuri RK and Chakraborti D (**2022**), Differential transcript expression profiles of susceptible and resistant pigeonpea cultivars at an early time point during Fusarium udum infection. Front. Genet. 13:1009127. **(IF 2.8)**

19. **Gupta S**, Chakraborty A and Roy A (**2023**) Prospects for deploying microbes against tree-killing beetles (Coleoptera) in Anthropocene. *Front. For. Glob. Change* 6:1182834. **(IF 3.2)**

20. Saswati Bhattacharya, **Sumanti Gupta** and Jayita Saha (**2023**) Nanoparticles regulate redox metabolism in plants during abiotic stress within hormetic boundaries. Functional Plant Biology. doi:10.1071/FP23068 **(IF 2.7)**

21. **Gupta, S**., Sinha, S., & Bhar, A. (**2025**). Harnessing belowground interaction: Re-analyzing the role of rhizosphere microbiome in plant–pathogen interaction under water stress. Journal of Plant Growth Regulation, 44(12), 6841-6862. (**IF 4.4**)

22. Bhar, A., **Gupta, S**., & Banerjee, D. B. (2026). From Signaling to Resistance; delineating the multifaceted role of Salicylic acid as the key modulator of biotic stress tolerance. Functional Plant Biology, FP25406. (**IF 2.7).**

Book chapter:

1. **Sumanti Gupta,** Arpita Bala and Sampa Das **(2013).** New Challenges to Strengthen the Health and Nutritional Security of Indian Citizens. Chief Eds. J. P. Keshri & R. Mukhopadhyay, Department of Botany & Publication Unit, The University of Burdwan. **Medicinal Plants: Various Perspectives, 178-189: 2012, ISBN 81-87259-85-X.**

2. **Gupta, S.,** & Roy, A. **(2018).** Plant cell wall: A simple physical barrier or a complex defense modulator–exploring its dynamic role at plant-fungus interface. In Molecular aspects of plant-pathogen interaction (pp. 333-351). Edited by Indrakant_K._Singh and Archana_Singh. Singapore: Springer Singapore.

3. Sumanti Gupta and Sampa Das (**2019**). Insight into the Molecular Interaction Between Leguminous Plants and Rhizobia Under Abiotic Stress. In Book: Molecular Plant Abiotic Stress: Biology and Biotechnology, First Edition.Edited by Aryadeep Roychoudhury and Durgesh Kumar Tripathi. Published by JohnWiley & Sons Ltd.

4 **Sumanti Gupta** and Amit Roy (**2021**). Deciphering the Role of Phytoanticipins, Phytoalexins, and Polyphenols in Plant-Insect Defense. In Book: Plant-Pest Interactions: From Molecular Mechanisms to Chemical Ecology. Edited by Indrakant_K._Singh and Archana_Singh. Published by Springer Nature Singapore Pte Ltd.

5 **Sumanti Gupta (2023).** Disentangling the minutiae of plant nematode crosstalk: Present Understanding versus future challenges. Page 151-176. Edited by Anirban Bhar and Aryadeep roy Chowdhury in book Emerging technologies to combat biotic stress in crop plants and food security. Published by Nova Publishers.

6 Gupta, S. (**2025**). Co-Evolutionary Dynamics of Plant-Microbe Interaction; A Comprehensive Outlook. In Plant-Microbe Interactions: A Comprehensive Review (pp. 1-24). Bentham Science Publishers.

7. **Gupta, S.**, & Roy, A. Nutraceutical or Adaptogen or Pharmaceutical: An Overview on the Overlapping Roles of Indian Ginseng (*Withania somnifera* L.) as an Ayurvedic Rejuvenator. Plant Secondary Metabolites, 218-229.

8. Gupta, S., Bhar, A., & Banerjee, D. B. (2026). Strategic Manipulation of Pathogen Recognition Receptors in Plants for Efficient Perception of Fungal Pathogens: Benefits and Risks. In *Sustainable Crop Production: New Research Paradigms in Plant Sciences* (pp. 395-413). Singapore: Springer Nature Singapore.

List **of full length gene clones** submitted to **GENBANK (NCBI).**

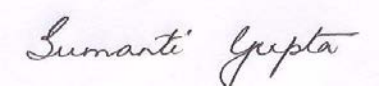
1. **Sumanti Gupta** and Sampa Das. 14.3.3 like gene isolated from roots of *Cicer arietinum* L. upon induction with *Fusarium oxysporum* f sp. *ciceri* Race 1. (**Accession No. HM173664**).

2. **Sumanti Gupta** and Sampa Das. Nodule enhanced sucrose synthase gene isolated from roots of *Cicer arietinum* L. upon induction with *Fusarium oxysporum* f sp. *ciceri* Race 1. (**Accession No. HM173663**).

List of accessions **(ESTs)** submitted to **GENBANK (62 in number).**

Accession numbers **GO660518- GO660573, GO935217- GO935222 (Total 62 ESTs)** isolated from ***Cicer arietinum*** in response to ***Fusarium oxysporum* f.sp. *ciceri* Race 1 (Foc Race 1)** attack.

Date: **03 June, 2026**.
Place: **Hooghly, West Bengal, India**.



(**Sumanti Gupta**)