CURRICULUM VITAE

NAME: **Dr. Sumanti Gupta**
Address: (official): Assistant Professor,
Department of Botany,
Rabindra Mahavidyalaya,
Champadanga, Tarakeshwar,
District: Hooghly, Pin-712401, West Bengal.

E. mail: **sumantigupta@gmail.com**
sumantigupta@yahoo.com

Educational Profile:

2010 Doctorate of Philosophy (**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

2002 Master of Science **(M.Sc)** in Botany. Specialization in Plant Physiology, Plant Biochemistry and Plant Molecular Biology from Calcutta University, India

2000 Bachelor of Science **(B.Sc)** in Botany (Honours) with Zoology (Pass) and Chemistry (Pass) from Calcutta University, Presidency College, Kolkata, India.

Previous and Present Positions:

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

5th March 2010 to 15th December 2014: Post Doctoral Research Associate at Bose Institute, Kolkata, India

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.

Teaching Experience: More than Five years in teaching undergraduate courses of 1+1+1 System and CBCS (Choice Based Credit System) curriculum of Honours and General degree Courses in Botany.

Courses Taught: Phycology, Microbiology, Ecology and Phytogeography, Biomolecules and Cell Biology, Plant Physiology, Plant Metabolism, Plant Biotechnology, Agricultural Botany, Reproductive Biology of Angiosperms, Bioinformatics, Industrial Microbiology etc.

Research Interests: Molecular Biology, Physiology and Biochemistry of Plants, Plant Microbe Interaction and Plant Immunity, Phytochemistry, Agricultural Ecology, Bioinformatics and drug designing, Herbal Pharmacology etc.

Publications

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 (ISI 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 (ISI 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 (ISI 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 (ISI 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 (ISI 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 (ISI 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 (ISI 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) (ISI 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 (ISI 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 (ISI 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. 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).**

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. Anirban Bhar, **Sumanti Gupta**, Moniya Chatterjee, and Sampa Das (**2017**). Redox Regulatory Networks in Response to Biotic Stress in Plants: A New Insight through Chickpea-*Fusarium* Interplay. **Mechanism of Plant Hormone Signaling under Stress, Wiley Publications**, First Edition, Volume 2. Edited by Girdhar Pandey. **23-43: ISBN: 978-1-118-88892-6**

3. **Sumanti Gupta*** and Amit Roy (2018). Plant Cell Wall: A Simple Physical Barrier 15 or a Complex Defense Modulator –Exploring Its Dynamic Role at Plant-Fungus Interface. A. Singh, I. K. Singh (eds.), Molecular Aspects of Plant-Pathogen Interaction, **Springer Nature**, **333-351**, **ISBN 978-981-10-7370-0. (* Corresponding Author).**

4. **Sumanti Gupta**,* and Sampa Das,* (**2019**). Insight into the Molecular Interaction Between Leguminous Plants and Rhizobia Under Abiotic Stress. **Molecular Plant Abiotic Stress: Biology and Biotechnology,** First Edition. Edited by Aryadeep Roychoudhury and Durgesh Kumar Tripathi. Wiley and Sons Ltd. **301-314, ISBN: 978-1-119-46366-5. (* Corresponding Author).**

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 – 62no.)** submitted to **GENBANK ().**

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.

I do hereby declare that the details provided above are true to the best of my knowledge and belief.

Date: **10th August, 2020**.
Place: **Hooghly, West Bengal, India**.

(**Sumanti Gupta**)