

## Curriculum vitae



1. Name and full correspondence address : **Dr. Gaurab Gangopadhyay**  
Professor  
Department of Biological Sciences  
(Erstwhile Division of Plant Biology)  
Bose Institute  
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[gaurabgangopadhyay@gmail.com](mailto:gaurabgangopadhyay@gmail.com)  
8902781646
3. Institution : Bose Institute, Kolkata
4. Date of Birth : 24.07.1966
5. Gender (M/F/T) : M
6. Category Gen/SC/ST/OBC : Gen
7. Whether differently abled (Yes/No) : No
8. Academic Qualification (Undergraduate Onwards)

Degree	Year	Subject	University/Institution	% of marks
1. B.Sc.	1986	Botany (Hons.)	Presidency College/ University of Calcutta	61.3
2. M.Sc.	1988 (result in 1989)	Botany	University of Calcutta	63.6
3. Ph.D.	1997	Science (Botany)	University of Calcutta	-

9. Ph. D thesis title, Guide's Name, Institute/Organization/University, Year of Award:

*In vitro* studies on salt and water stresses in *Nicotiana tabacum* L. var. Jayasri and *Brassica juncea* (L) Czern. Var. 85-59

Professor Sukumar Gupta

Bose Institute, degree under University of Calcutta

Date of submission: 15.12.1995, Date of award: 20.09.1997

10. Work experience (in chronological order):

S.No.	Positions held	Name of the Institute	From	To	Pay Scale
1	Assistant Professor	Bose Institute	23.06.2008	22.06.2012	Rs. 15,600-39,100 GP Rs. 7,600/-
2	Associate Professor	Bose Institute	23.06.2012	31.12.2018	Rs. 37,400-67,000 GP Rs. 8,700/-
4	Professor	Bose Institute	22.10.2024	31.07.2026 (date of superannuation)	Matrix pay – Level 14 Rs. 1,88,200/-
4	Professor	Bose Institute	22.10.2024	31.07.2026 (date of superannuation)	Matrix pay – Level 14 Rs. 1,88,200/-

11. Professional Recognition/ Award/ Prize/ Certificate, Fellowship received by the applicant:

S.No	Name of Award	Awarding Agency	Year
1	Research Associateship (Ad hoc)	CSIR	1999

12. Publications: **Total 92** as on 30.04.2026

**The list of significant publications for the last ten years (with Impact Factors):**

1. Sepay Nadir, Chakraborty A, Sepay Nayim, Paul S, **Gangopadhyay G**, Bera S (2026) Modelling the structure of Lsi2, Lsi3, Lsi6 proteins and their role in the intercellular trafficking of silicon from root to shoot in rice. **Journal of Biomolecular Structure and Dynamics** (Published online on 16.04.2026. <https://doi.org/10.1080/07391102.2026.2653797>) **Impact Factor – 2.4 (2024)**

2. Sikdar B, Paul D, Banik SK, Ghosh Dastidar S, **Gangopadhyay G (2026)** An integrated *in-vitro*, transcriptomic, and *in-silico* approach to understand the molecular mechanism of quorum-sensing inhibition by Epigallocatechin-3-gallate (EGCG) in *Chromobacterium violaceum*. **World Journal of Microbiology and Biotechnology** (Published online on 23.01.2026. <https://doi.org/10.1007/s11274-025-04715-x>). **Impact Factor – 4.2 (2024)**
3. Pal S, and **Gangopadhyay G 2025**. Overexpression of *AcSERK3* confers *Fusarium*-tolerance to transgenic pineapple. **In Vitro Cellular & Developmental Biology - Plant** (Published online on 20.05.2025. <https://doi.org/10.1007/s11627-025-10533-5>) **Impact Factor – 2.2 (2023)**
4. Sikdar B, Mukherjee S, Bhattacharya R, Raj A, Roy A, Banerjee D, **Gangopadhyay G** and Roy S **2024**. The anti-quorum sensing and biofilm inhibitory potential of *Piper betle* L. leaf extract and prediction of the roles of the potent phytochemicals. **Microbial Pathogenesis** 195:106864 (Published online on 15.08.2024. <https://doi.org/10.1016/j.micpath.2024.106864>) **Impact Factor – 3.3 (2023)**
5. Najar MA and **Gangopadhyay G 2024**. Identification and validation of defense related candidate genes in *Sesamum* under artificial inoculation of *Macrophomina phaseolina*. **Nucleus** (Published online on 20.04.2024. <https://doi.org/10.1007/s13237-024-00490-6>) **Impact Factor – 2.1 (2023)**
6. Banerjee, S and **Gangopadhyay G 2024**. Untargeted Metabolomics Reveals Altered Pathways in Phytoplasma-Infected Sesame Plants. **Plant Molecular Biology Reporter** (Published online on 04.03.2024. <https://doi.org/10.1007/s11105-024-01440-x>) **Impact Factor – 2.1 (2022)**
7. Awon VK, Dutta D, Banerjee S, Pal S and **Gangopadhyay G 2024**. Integrated metabolomics and transcriptomics analysis highlight key pathways involved in the somatic embryogenesis of Darjeeling tea. **BMC Genomics** 25:207 (Published online on 23.02.2024. <https://doi.org/10.1186/s12864-024-10119-2>) **Impact Factor – 4.4 (2022)**
8. Dutta D, Harper A and **Gangopadhyay G 2022**. Transcriptomic analysis of high oil-yielding cultivated white sesame and low oil-yielding wild black sesame seeds reveal differentially expressed genes for oil and seed coat colour. **Nucleus** (Published online on 04.05.2022. <https://doi.org/10.1007/s13237-022-00389-0>) **Impact Factor – 1.8 (2022)**
9. Pal S, and **Gangopadhyay G 2022**. Expression and *in silico* analysis of the pineapple *SERK* gene homologues during *in vitro* regeneration and induced *Fusarium* infection. **Vegetos** (Published online on 18 February 2022. <https://doi.org/10.1007/s42535-022-00350-1>)

10. Dutta D, Banerjee S, Pal M and **Gangopadhyay G 2022**. Validation of determinate (*dt*) gene-based DNA marker in inter-specific hybrid sesame and *in-silico* analysis of the predicted dt protein structures. **Physiology and Molecular Biology of Plants** (Published online on 31 January 2022. <https://doi.org/10.1007/s12298-022-01135-1>) **Impact Factor – 3.5 (2022)**
11. Datta D, Prasad R and **Gangopadhyay G 2022**. Inter-specific hybrid sesame with high lignan content in oil reveals increased expression of *sesamin synthase* gene. **Nucleus** 65:7–18 (Published online 19 May 2021. <https://doi.org/10.1007/s13237-021-00354-3>) **Impact Factor – 1.8 (2022)**
12. Kumar D, Laha S and **Gangopadhyay G 2021**. *In silico* and expression analysis of  $\Delta^1$ -pyrroline-5-carboxylate synthetase in rice seedlings under NaCl stress. **Research Journal of Biotechnology** 16 (5): 31-40
13. Sengupta S, Bhattacharya S, Karmakar A, Ghosh S, Sarkar S N, **Gangopadhyay G**, Datta K and Datta SK **2021**. RNAi-mediated down-regulation of *ITPK-2* enhanced inorganic phosphorus and minerals in the transgenic rice. **Journal of Biosciences** 46:32 (<https://doi.org/10.1007/s12038-021-00154-6>) **Impact Factor – 2.9 (2022)**
14. Datta D, Awon VK and **Gangopadhyay G 2021**. Amino acid substitution in the conserved motifs of a hypothetical R-protein in sesame imparts a significant effect on ADP binding position and hydrogen bond interaction. **Physiological and Molecular Plant Pathology** 113: 101588 (<https://doi.org/10.1016/j.pmpp.2020.101588>) **Impact Factor – 2.7 (2022)**
15. Datta D, Awon VK and **Gangopadhyay G 2020**. Transcriptomic dataset of cultivated (*Sesamum indicum*), wild (*S. mulayanum*), and inter-specific hybrid sesame in response to induced *Macrophomina phaseolina* infection. **Data in Brief** 33: 106448 (<https://doi.org/10.1016/j.dib.2020.106448>) **Impact Factor – 1.2 (2022)**
16. Sultana M and **Gangopadhyay G 2020**. *In silico* structural analysis and ligand-binding predictions of a few developmental stage-specific proteins during *in vitro* morphogenesis in *Vanilla*. **Vegetos** 33:570-579 (<https://doi.org/10.1007/s42535-020-00140-7>) Published online 15.07.2020
17. Bhattacharya S, Sengupta S, Karmakar A, Sarkar SN, **Gangopadhyay G**, Datta K and Datta SK **2019**. Genetically engineered rice with *appA* gene enhanced phosphorus and minerals. **Journal of Plant Biochemistry and Biotechnology** (<https://doi.org/10.1007/s13562-019-00505-3>) **Impact Factor – 1.9 (2022)**
18. Laha S, Kumar D, Sengupta DN and **Gangopadhyay G 2019**. *In silico* characterization of *SAMdC* from Pokkali rice and its over-expression in transgenic tobacco. **Vegetos** (Springer) (<https://doi.org/10.1007/s42535-019-00019-2>)

19. Bose. S., **Gangopadhyay, G.** and Sikdar, S.R. **2019.** *Rorippa indica* HSPRO2 expression in transgenic *Brassica juncea* induces tolerance against mustard aphid *Lipaphis erysimi*. **Plant Cell Tissue and Organ Culture** 136: 431 – 443 (online version <https://doi.org/10.1007/s11240-018-1524-4>) **Impact Factor – 3.0 (2022)**
20. Bose. S., **Gangopadhyay, G.** and Sikdar, S.R. **2018.** RiHSPRO2, a nematode resistance protein-like homolog from a wild crucifer *Rorippa indica* (L.) Hiern, is a promising candidate to control mustard aphid *Lipaphis erysimi*. **Arthropod-Plant Interactions** 12:701–714 (online version <https://doi.org/10.1007/s11829-018-9615-z>) **Impact Factor – 1.6 (2022)**
21. Sultana, M. and **Gangopadhyay, G.** **2018.** Early expression of WUSCHEL is a marker for *in vitro* shoot morphogenesis in tobacco and *Beta palonga*. **Plant Cell Tissue and Organ Culture** 134: 277 – 288 (online version <https://doi.org/10.1007/s11240-018-1421-x>) **Impact Factor – 3.0 (2022)**
22. Arora, V., Ghosh, M.K., Singh, P. and **Gangopadhyay, G.** **2018.** Light regulation of nitrate reductase gene expression and enzyme activity in the leaves of mulberry. **Indian Journal of Biochemistry and Biophysics** 55: 62-66.
23. Debnath, A.J., **Gangopadhyay, G.**, Basu, D. and Sikdar, S.R. **2018.** An efficient protocol for *in vitro* organogenesis of *Sesamum indicum* L. using cotyledon as explants. **3 Biotech** 8:146 ( <https://doi.org/10.1007/s13205-018-1173-7> ) **Impact Factor – 2.8 (2022)**
24. Arora, V., Ghosh, M.K., Pal, S. and **Gangopadhyay, G.** **2017.** Allele specific CAPS marker development and characterization of chalcone synthase gene in Indian mulberry (*Morus* spp., family Moraceae). **PLOS ONE** June 22, 2017, <https://doi.org/10.1371/journal.pone.0179189> **Impact Factor – 3.7 (2022)**
25. Arora, V., Sultana, M., Kumar, V. and **Gangopadhyay, G.** **2017.** Isolation and characterization of *BADH2* gene from *in vitro* propagated *Pandanus amaryllifolius* Roxb. **Plant Cell Tissue and Organ Culture** (online version DOI 10.1007/s11240-017-1209-4). **Impact Factor – 3.0 (2022)**
26. **Gangopadhyay, G.** and Mukherjee, K.K. **2015.** Chapter 23: Pineapple. In: *Agrobacterium protocols, Springer protocols, Methods in Molecular Biology* 1224, Volume 2, 3rd Ed. (ISSN 1064-3745, ISBN 978-1-4939-1657-3) Ed. Wang, K., Humana Press, Springer, New York, Heidelberg, Dordrecht, London. Pp. 293-305.

13. Detail of patents.

S.No	Patent Title	Name of Applicant(s)	Patent No.	Award Date	Agency/Country	Status
1	Downstream processing in micropropagation	Gangopadhyay, G. et al.	770/Cal/99 dtd. 09.09.99		India	

14. Submissions to GenBank, NCBI database: **Total 89** as on 14.06.2025

15. Completed funded project: 1

Project entitled “Development of transgenic pineapple over-expressing *AcSERK* to combat fungal pathogens” funded by Department of Biotechnology, Govt of West Bengal (Memo No. 43(Sanc) – BT/ST/P/S&T/2G-32/2017 dtd 16.02.2018)

16. Reviewer of the following journals:

- The Nucleus, January 2026
- Plant Cell Reports, January 2026
- Journal of Phytopathology, December 2025
- Physiological and Molecular Plant Pathology, December 2025
- Journal of Plant Growth Regulations, August 2025
- BMC Plant Biology, May 2025
- PLOS ONE, March 2025
- Journal of Plant Biochemistry and Biotechnology, February 2025
- Food Science and Nutrition, October 2024
- Scientific Reports, July 2023
- Plant Molecular Biology Reporter, February 2023
- 3 Biotech, April 2022
- PROTOPLASMA, January 2022
- BIOCELL, January 2021
- Planta Medica, December 2020
- Hort Science, October 2020
- Journal of Plant Breeding and Crop Science, September 2020
- Proceedings of the Indian national Science Academy, July 2020
- Genetic Resources and Crop Evolution, March 2020
- Indian Journal of Genetics and Plant Breeding, February 2019

17. PhD thesis supervised: 10

18. Post-doctoral students trained: 02

19. M.Sc. projects supervised (Integrated MSc of Bose Institute): 07

20. M.Sc. projects supervised (interns from outside organizations): 07

21. Teaching: Integrated MSc-PhD (Life Sciences) of Bose Institute  
Course work of PhD students at Bose Institute

*Gaurab Gangopadhyay*  
(Prof. Gaurab Gangopadhyay)

डा. गौरव गंगोपाध्याय / Dr. Gaurab Gangopadhyay  
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