**Curriculum vitae**



1. Name and full correspondence address : **Dr. Gaurab Gangopadhyay**

Professor

Department of Biological Sciences

(Erstwhile Division of Plant Biology)

Bose Institute

(Unified Academic Campus)

EN 80, Sector V, Bidhan Nagar

Kolkata – 700091

2. Email(s) and contact number(s) : [gaurab@jcbose.ac.in](gaurab@jcbose.ac.in%20)

[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/- |
| 3 | Professor | Bose Institute | 01.01.2019 | Till date | Matrix pay – Level 13A Rs. 1,47,600/- |

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 89** as on 14.06.2025

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

1. 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)
2. 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 phytocompounds. Microbial Pathogenesis 195:106864 (Published online on 15.08.2024. <https://doi.org/10.1016/j.micpath.2024.106864>) Impact Factor – 3.3 (2023)
3. 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)
4. 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)
5. 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)
6. 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)
7. 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>) 789
8. 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)
9. 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)
10. Kumar D, Laha S and Gangopadhyay G 2021. *In silico* and expression analysis of Δ1-pyrroline-5-carboxylate synthetase in rice seedlings under NaCl stress. Research Journal of Biotechnology 16 (5): 31-40 789
11. 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)
12. 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)
13. 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)
14. 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

1. 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)
2. 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>)
3. 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)**
4. 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)**
5. 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)**
6. 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.
7. 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)**
8. 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)**
9. 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)**
10. **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.

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| --- | --- | --- | --- | --- | --- | --- |
| 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 (**Last five years**):

1. Applied Biological Research (March 2020)
2. Genetic Resources and Crop Evolution (March 2020)
3. Proceedings of the Indian National Science Academy (July 2020)
4. African Journal of Agricultural Research (July 2020)
5. 3 Biotech (August 2020)
6. African Journal of Agricultural Research (August 2020)
7. Hort Science (September 2020)
8. BMC Genomics (September 2020)
9. Journal of Plant Breeding and Crop Science (September 2020)
10. Hort Science (October 2020)
11. The Nucleus (November 2020)
12. Planta Medica (December 2020)
13. BMC Plant Biology (December 2020)
14. BIOCELL (January 2021)
15. PROTOPLASMA (December 2021)
16. PROTOPLASMA (January 2022)
17. 3 Biotech (April 2022)
18. The chapter V of the book entitled “*Genetics, Genomics and Breeding of Bamboos”* (May 2022)
19. The Nucleus (August 2022)
20. Scientific Reports (December 2022)
21. The Nucleus (January 2023).
22. The Nucleus (June 2023).
23. Plant Molecular Biology Reporter (February 2023).
24. Scientific Reports (July 2023).
25. The Nucleus (April 2024).
26. The Nucleus (September 2024, revised version October 2024).
27. Food Science and Nutrition (Wiley) (October 2024).
28. The Nucleus (January 2025).
29. The Nucleus (February 2025, revised version 05.04.2025).
30. Journal of Plant Growth Regulations (February 2025).
31. Journal of Plant Biochemistry and Biotechnology (February 2025)
32. Physiological and Molecular Plant Pathology (March 2025)
33. PLOS ONE (March 2025, revised version 31.05.2025)
34. BMC Plant Biology (May 2025)

