



1. Name: Dr. Biplab Kumar Bhowmick

2. Designation and department: Assistant Professor of Botany, Scottish Church College (affiliated to University of Calcutta), India

3. Highest qualification: Ph.D.

4. Teaching areas and specialization: Botany, specialized in Genetics, and research involves advances in methodology and application of plant chromosome study in select angiosperm families

5. Teaching experience: 11 years 6 months (as in September 2026)

6. List of publications till date

Research Articles:

1. Ghosh S, Sarkar D, Sandhukhan R, Pandit MK, **Bhowmick BK*** (2026). Revisiting the chromosomal fluorescence banding pattern in *Vicia faba* L. germplasm of India. **Cytologia** **91** (2): 131-134. **IF 1.27**
2. Ghosh T, Sarkar D, **Bhowmick BK*** (2026) CMA banding pattern in somatic chromosomes of *Albuca virens*, the Scilloid ornamental. Journal of Cytologists and Genetics (In press)
3. **Bhowmick, B. K***, Sarkar, D., & Mandal, R. (2025). Detailed karyotype analysis in the Indian eggplants by application of EMA chromosome preparation method. **Cytologia** (The Japan Mendel Society). **90** (1): 57-62. **IF 1.27**
4. Jha, T. B., Halder, M., & **Bhowmick, B. K.** (2024). Giemsa-based chromosome staining and comparative fluorescent banding pattern in five valuable Indian plant species. **Caryologia** (International Journal of Cytology, Cytosystematics and Cytogenetics, Firenze University Press, Italy) **77**(3): 37-45. **IF 0.91**
5. **Bhowmick BK^{1*}**, Nag S² (2023) Unfolding chromosomal uniqueness of the Scilloid ornamental *Albuca virens* by application of EMA based Giemsa- DAPI staining. **Caryologia** **76** (2): 31-39 **IF 0.91**
6. **Bhowmick BK**, Sarkar S, Roychowdhury D, Patil SD, Lekhak MM, Ohri D, Rama

- Rao S, Yadav SR, Verma RC, Dhar MK, Raina SN, Jha S (2023) Allium cytogenetics: a critical review on the Indian taxa. **Comparative Cytogenetics** (International Journal of Plant & Animal Cytogenetics, Karyosystematics and Molecular Systematics Cytology, Cytosystematics and Cytogenetics, Russian Academy of Sciences). 17: 129- 156. **IF 1.18**
7. **Bhowmick BK**, Jha S* (2022) A critical review on cytogenetics of Cucurbitaceae with updates on Indian taxa. **Comparative Cytogenetics** 16 (2): 93-126. **IF 1.18**
 8. Jha TB*, **Bhowmick BK**, Roy P (2021) Analysis of CMA-DAPI bands and preparation of fluorescent karyotypes in thirty Indian cultivars of *Lens culinaris*, **Caryologia** 74(2): 65-77. **IF 0.91**
 9. Jha TB* and **Bhowmick BK** (2021) Conservation of floral, fruit and chromosomal diversity: a review on diploid and polyploid *Capsicum annuum* complex in India. **Molecular Biology Reports** (An International Journal on Molecular and Cellular Biology) 48(7): 5587-5605. **IF 2.31**
 10. **Bhowmick BK^{1*}**, Jha S² (2021) A Comparative Account of Fluorescent Banding Pattern in the Karyotypes of Two Indian *Luffa* Species. **Cytologia** 86: 35- 39 **IF 0.99**
 11. Jha TB* and **Bhowmick BK** (2021) Unravelling the genetic diversity and phylogenetic relationships of Indian *Capsicum* through fluorescent banding. **Genetic Resources and Crop Evolution** (Springer Verlag, Germany) 68: 205-225. **IF 1.86**
 12. Ghosh I, Saha PS, **Bhowmick BK**, Jha S* (2020) A phylogenetic analysis of *Momordica* (Cucurbitaceae) in India based on karyo-morphology, nuclear DNA content and rDNA ITS1-5.8S-ITS2 sequences: **Protoplasma** (Springer Verlag, Germany) 258:347–360 **IF 3.35**
 13. **Bhowmick BK** and Jha S* (2019) Differences in karyotype and fluorochrome banding patterns among variations of *Trichosanthes cucumerina* with different fruit size. **Cytologia** 84:1-10. **IF 0.99**
 14. Ghosh I, **Bhowmick BK** and Jha S* (2018) Cytogenetics of two Indian varieties of *Momordica charantia* L. (bittergourd). **Scientia Horticulturae** (Elsevier BV, Netherlands) 240:333–343. **IF 3.46**

15. Than MMM, Samaddar T, **Bhowmick BK** and Jha S* (2017) Fluorescent chromosome banding and genome size estimation in three species of *Swertia*. **Cytologia** 82: 513–520 *IF* 0.99
16. **Bhowmick BK**, Yamamoto M and Jha S* (2016) Chromosomal localization of 45S rDNA, sex specific C values and heterochromatin distribution in *Coccinia grandis* (L.) Voigt. **Protoplasma** 253: 201-209 *IF* 3.35
17. **Bhowmick BK** and Jha S* (2015) Differential heterochromatin distribution, flow cytometric genome size and meiotic behavior of chromosomes in three Cucurbitaceae species. **Scientia Horticulturae** 193: 322-329. *IF* 3.46
18. **Bhowmick BK** and Jha S* (2015) Dynamics of sex expression and chromosome diversity in Cucurbitaceae: A story in the making. **Journal of Genetics** (Indian Academy of Sciences) 94: 793- 808 *IF* 1.43
19. **Bhowmick BK**, Nanda S, Nayak S, Jha S* and Joshi RK (2014) An *APETALA3* *MADS*-box linked SCAR marker associated with male specific sex expression in *Coccinia grandis* (L). Voigt. **Scientia Horticulturae** 176: 85–90 *IF* 3.46
20. **Bhowmick BK**, Jha TB and Jha S* (2012) Chromosome analysis in the dioecious cucurbit *Coccinia grandis* (L.) Voigt. **Chromosome Science** (The Society of Chromosome Research, Japan) 15: 9-15.

Book Chapters:

Bhowmick BK* (2021) Possibility of Uncoding Structural Organization of Genome in Rice Research: Prospects and Approaches by 3D Genome Sequencing. In: (Gupta MK and Lambodar B, Eds.), Applications of Bioinformatics in Rice Research. Springer, Singapore, 2021. 3-28.

Conference abstracts:

Biplab Kumar Bhowmick^{1*}, Sumita Jha² (2021) Assessment of Chromosomal Diversity in Indian Cucurbit Species by Fluorescent Karyotype Analysis. **XIIth Eucarpia Meeting** on Cucurbit Genetics and Breeding. p 26 ISBN: 978-84-1351-090-3

7. Details of Ph.D. guidance: One enrolled

8. Projects received: ‘Assessment of chromosomal diversity and underlying relationships among *Solanum melongena* cultivars and its closest allied species in the subtribe

Leptostemonum of Solanaceae based on EMA- fluorescent karyotypes and nuclear ITS sequence analysis’, funded by ANRF, GoI (2024-2027)

9. Awards/ recognitions:

- **Winner of webinar competition (2026):** ‘Wild Eggplant Chromosomes and the Possibilities of Crop improvement’ at ANRF+IITMandi Webinar Competition organized by the Anusandhan National Research Foundation (ANRF) in collaboration with the Indian Institute of Technology Mandi (IIT Mandi) under the theme “Science Communication and Democratising Research’ held at IIT Mandi from 13th to 14th August, 2026
- **Poster Award (2021)** based on research work presented as ‘Assessment of Chromosomal Diversity in Indian Cucurbit Species by Fluorescent Karyotype Analysis’ in **XIIth Eucarpia Meeting** on Cucurbit Genetics and Breeding, organized jointly by the University of Almería, the Institute for Mediterranean and Subtropical Horticulture "La Mayora" in Málaga, and the Polytechnic University of Valencia, Spain, May 24-28, 2021
- **Best Poster award (2016)** based on research work presented as ‘Cytogenetic characterization, sex specific C-values and SCAR-marker assisted sex determination in the dioecious cucurbit *Coccinia grandis*’, in: International Conference on “The Green Planet: Past, Present and Future”, University of Calcutta, India, December 23-26, 2016

National:

- **Young Scientist Award (2020)** based on outstanding research work presented as ‘EMA- Based Fluorochrome Banding Reveals Karyotype Specialization in Cucurbit Species of India’ in the Plant Genetics and Genomics Conference organized by Department of Genetic Engineering, SRM Institute of Science and Technology, Kattankulathur, Tamil Nadu, India, January 2020
- DST INSPIRE Fellow, Department of Science and Technology-INSPIRE, Government of India (2010- 2015)

10. Other information

Memberships

1. Editorial Advisory Board of the Journal Cytologia, The Japan Mendel Society
2. Life member, Society of Cytologists and Geneticists, India