

# RESUME

**Name** : *Dr Priyanka Chakraborty (Bandopadhyay)*  
**Date of Birth** : 11<sup>th</sup> July, 1986  
**Sex** : Female  
**Nationality** : Indian  
**Marital Status** : Married  
**Permanent Address** : Joypur Road, Nirodgarh, P.O. + P.S.- Pandua.  
Dist.- Hooghly, Pin- 712149. West Bengal, India  
9474031464;8967817095(M)  
e-mail # [priyankabotanybu@gmail.com](mailto:priyankabotanybu@gmail.com)

**Educational Qualification** : M. Sc. Botany (1<sup>st</sup> Class First, Gold Medalist),  
Ph. D.

**Area of Specialization** : Plant Physiology and Biochemistry

**Academic Qualifications** :

<b>Institution</b>	<b>Degree</b>	<b>% of Marks</b>	<b>Year</b>	<b>Field of Study</b>
The University of Burdwan	Ph. D.		2017	Botany (Plant Physiology and Biochemistry)
The University of Burdwan	M. Sc.	82.083	2011	Botany (specialization in Plant Physiology and Biochemistry)
The University of Burdwan	B.Sc.	73.125	2009	Botany (Hons); ZOOP, CHEMP

**Professional Qualifications :**

**A. Training Programme**

1. Attended UGC Sponsored Refresher/ Orientation Course in Interaction Program for Ph.D. scholars (2014). At Academic Staff College, The University of Burdwan, West Bengal. September 4 – 24.
2. UGC supported Workshop on “Expanding Molecular Approaches to Health and Welfare” (2017). Organized by Department of Biotechnology, The University of Burdwan.
3. Attended A Three Day National Workshop on Advanced Optical Microscopy, at department of USIC, Burdwan University, 25-27th April (2018).

## **B. Teaching Experience:**

From 12<sup>th</sup> Dec 2023 to till date working as Assistant Professor in the Department of Botany, Asansol Girls' College, Asansol, West Bengal.

From 11<sup>th</sup> January 2019 to till date working as Guest lecturer at Sanjiban Hospital and College, Phuleswar, Howrah, West Bengal (affiliated to Lincon University College, Malayasia) for the Doctor of Medicine Course (MD).

## **C. Research Experience**

Ph. D. thesis on -

“Strategies for post-harvest hardening of crop seeds for prolonged storage”.

M. Sc. Dissertation on –

“Herbal manipulation of seed invigouration under artificial stress storage condition”

## **D. Membership of Scientific Societies: (3)**

- i) Life member of Plant Physiology Forum (PPF)
- ii) Life member of Botanical Society of Bengal
- iii) Life member of Indian Science Congress Association (ISCA)

## **Achievements:**

1. Awarded with Rani Katyayani Memorial Prize for academic performance in B.Sc. Part III Honours Examination, 2009. Hooghly Mohsin College, Chinsurah, Hooghly, West Bengal.
2. Merit cum means scholarship
3. First Class second in B.Sc. Botany in 2009
4. Awarded University Gold Medal from The University of Burdwan for ranking First Class First in M.Sc. Botany, Final Examination in the year 2011.
5. Awarded DST-INSPIRE Fellowship, 2012.
6. The paper entitled, “Accelerated ageing-induced rapid evaluation of storage hardening of a lentil cultivar [*Lens esculenta* (L.) cv.B-77] using herbal reagents.” authored by Priyanka Chakraborty and Alope Bhattacharjee, and presented by Priyanka Chakraborty was selected for the **award of best poster presentation**, at the seminar held during February,28- March,2 2014. At School of Life Sciences, Sambalpur University, Sambalpur, Odisha, India.
7. **Best poster award** in Bongiyoy Vigyan Utsav. 2015. At The University of Burdwan, West Bengal, India.

8. Acted as evaluator of Projects presented by Child Scientists at 25<sup>th</sup> State Level Children's Science Congress held at Loreto Convent, Entaly, Kolkata, September 23-24, 2017.
9. Acted as evaluator of Projects presented by Child Scientists at 26<sup>th</sup> State Level Children's Science Congress held at Hare School, Kolkata and Sanskrit Collegiate School, Kolkata, 17-18 November, 2018.
10. **ISCA BEST POSTER AWARD 2019**, in Agriculture and Forestry Sciences. At LPU, Jalandhar, Punjab. 3-7 January.

#### **INVITED YSC TALK:**

**Chakraborty P.** (2021). Post-harvest storage potentiation of a lentil seed cultivar employing chemical manipulation as the basic tool. Invited talk at "International Conference on Plant Science" during **December 3-5, 2021 at Cachar College, Silchar (Assam), India.**

#### **RESEARCH PAPER PUBLISHED**

1. **Chakraborty P**, Ojha. S, Mukhopadhyay R and Bhattacharjee A. (2013). Herbal manipulation of seed vigour under storage and its rapid evaluation by accelerated ageing technique. *Journal of the Botanical Society of Bengal*. 67(1):21-27.
2. **Chakraborty P** and Bhattacharjee A. (2014). A biofriendly innovative technique for hardening of lentil (*Lens esculenta* L. cv B-77) seeds by herbal treatment, *Indian Agriculturist*. 58(1):25-29.
3. **Chakraborty P** and Bhattacharjee A. (2014). Chemical-induced modulation of growth and productivity of a mung bean cultivar. *Journal of the Botanical Society of Bengal*. 68 (1):71-74.
4. **Chakraborty P** and Bhattacharjee A. (2015). Technique for invigouration of seeds of a lentil cultivar (*Lens esculenta* L. CV. WBL-77) and its expeditious evaluation by accelerated ageing. *Indian Biologist*. 47(1): 23-27.
5. **Chakraborty P.** and Bhattacharjee A. (2017). Ecofriendly method for seed invigouration of a mung bean (*vigna radiata* l. Cv-pdm 84-139 ) cultivar, *Science and Culture*, 83 (3-4) 113-116.

6. Dutta B., Banerjee A., **Chakraborty P.** and Bandopadhyay R. In silico studies on bacterial xylanase enzyme: Structural and functional insight. *Journal of Genetic Engineering and Biotechnology*.
7. Pinki Pal, Aparna Banerjee, Karuna Soren, Priyanka Chakraborty, Jay Prakash Pandey, Gautam Sen, **Rajib Bandopadhyay**. Novel biocide based on cationic derivative of psyllium:surface modification and antibacterial activity. *Journal of Polymers and the Environment*.(2019) 27:1178–1190, (**Impact Factor 3.667**) [**Indexing-google scholar, SCOPUS**] accepted on 7<sup>th</sup> March 2019) <https://doi.org/10.1007/s10924-019-01419-w>(ISSN - 1572-8919)
8. Aparna Banerjee, Priyanka Chakraborty and **Rajib Bandopadhyay**. 2019. Urgent Conservation need in Sikkim Himalaya biodiversity hotspot: an aspect from Ecoregions, Protected Areas, Important Bird Sites and floral/faunal composition. *Biodiversity*, Taylor and Francis 20(2-3):88-97. (**Impact Factor 0. 89**) [**Indexing-SCOPUS, web of science**] (ISSN - 2160-0651)
9. Aparna Banerjee, Priyanka Chakraborty, **Rajib Bandopadhyay**. 2019. Baratang Mud Volcano of Andaman and Nicobar Islands: An Overall Perspective. *National Academy Science Letters- India* (**Impact Factor 0. 788**) [**Indexing-SCOPUS**] DOI: 10.1007/s40009-019-00840-y (ISSN - 2250-1754)
10. Banerjee, Aparna, Vikas K. Somani, Priyanka Chakraborty, Rakesh Bhatnagar, Rajeev K. Varshney, Alex Echeverría-Vega, Sara Cuadros-Orellana, and Rajib Bandopadhyay. "Molecular and genomic characterization of PFAB2: A non-virulent *Bacillus anthracis* strain isolated from an Indian hot spring." *Current genomics* 20, no. 7 (2019): 491-507. (**Impact Factor 2.236**) [**Indexing-web of science**] (Cited by 3) (ISSN - 1875-5488)
11. Sarkar, Shrabana, Aparna Banerjee, Nibedita Chakraborty, Karuna Soren, Priyanka Chakraborty, and **Rajib Bandopadhyay**. "Structural-functional analyses of textile dye degrading azoreductase, laccase and peroxidase: A comparative in silico study." *Electronic Journal of Biotechnology* 43 (2020): 48-54. (**Impact Factor 2.800**) [**Indexing-SCOPUS**] (ISSN - 0717-3458)
12. Sarkar, Shrabana, Karuna Soren, Priyanka Chakraborty, and **Rajib Bandopadhyay**. "Application of Enzymes in Textile Functional Finishing." In *Advances in Functional Finishing of Textiles*, pp. 115-127. Springer, Singapore, 2020.
13. Sarkar, Shrabana, Priyanka Chakraborty, and **Rajib Bandopadhyay**. "Microbial Treatment for Removing Synthetic Dyes from Industrial Effluents." In *Combined Application of Physico-Chemical & Microbiological Processes for Industrial Effluent Treatment Plant*, pp. 47-63. Springer, Singapore, 2020.

14. Banerjee, Aparna, Priyanka Chakraborty, and Rajib Bandopadhyay. (2021). "Molecular mechanism controlling the circadian rhythm: nobel prize winning research in physiology or medicine'17."National Academy Science Letters, 81-83.(IF:0.788) [SCOPUS] (ISSN - 1572-8919)

#### BOOK CHAPTERS:

- 1) Nibedita Chakraborty, **Priyanka Chakraborty**, Rajib Bandopadhyay, and Jolly Basak. "Deciphering the Molecular Mechanisms of Biotic Stress Tolerance Unravels the Mystery of Plant-Pathogen Interaction." In Sustainable Agriculture Reviews 51, pp. 295-316.Springer, Cham, 2021.
- 2) Sarkar, Shrabana, **Priyanka Chakraborty**, and Rajib Bandopadhyay. "Microbial Treatment for Removing Synthetic Dyes from Industrial Effluents." In *Combined Application of Physico-Chemical & Microbiological Processes for Industrial Effluent Treatment Plant*, pp. 47-63. Springer, Singapore, 2020.
- 3) Laha, Anubhab, **Priyanka Chakraborty**, Chiranjib Banerjee, Anindya Sundar Panja, and Rajib Bandopadhyay."Application of Bioinformatics for Crop Stress Response and Mitigation."In *Sustainable Agriculture in the Era of Climate Change*, pp. 589-614.Springer, Cham, 2020.
- 4) Sarkar, Shrabana, Karuna Soren, **Priyanka Chakraborty**, and Rajib Bandopadhyay. "Application of Enzymes in Textile Functional Finishing."In *Advances in Functional Finishing of Textiles*, pp. 115-127.Springer, Singapore, 2020.
- 5) Nibedita Chakraborty, **Priyanka Chakraborty**, Moutushi Sen, and Rajib Bandopadhyay."Choice of explant for plant genetic transformation."In *Biolistic DNA Delivery in Plants*, pp. 107-123.Humana, New York, NY, 2020

#### Abstracts of papers presented in conferences and Participated in Seminars/

##### Conferences:

##### State level: 2

1. **Chakraborty P** and Bhattacharje. A. (2014). A bio-friendly method for enhancement of storage potential and viability extension of a mung bean cultivar. In: 21<sup>st</sup> West Bengal State Science and Technology Congress. At The University of Burdwan, Burdwan, India.p-116.
2. **Chakraborty P** and Bhattacharje. A. (2017). Comparative study of chemical vs herbal seed pretreatment for long term storage for farmers in Agriculture in West Bengal. In 2<sup>nd</sup>

regional Science and Technology Congress, 2017, West Bengal, at The University of Burdwan, Burdwan, India, p- 27

- 3. Chakraborty P.** and Bhattacharje. A. (2023). Physiobiochemical analysis of an invigorated food crop cultivar (*Vigna radiata* L. cv-PDM 84-139) with special emphasis on stress tolerance activity; in **Regional Science and Technology Congress, West Bengal, at The University of Burdwan, Burdwan, India.**

#### **National level: 14**

- 4. Chakraborty P.** and Bhattacharjee A. (2012). Influence of seed pretreatment with selected herbal agents on storage potentiation of mung bean seeds for sustainable productivity. In National Seminar on “Biodiversity conservation and sustainable development”. August 2. Dept. of Botany and Forestry, Vidyasagar University, Midnapore, W.B., India. P- 15.
- 5. Chakraborty P,** Ojha S. and Bhattacharjee A. (2013). Ecofriendly technique for seed invigoration by herbal manipulation. In: 100<sup>th</sup> Indian Science Congress, Centenary Session, Section of Plant Science, Kolkata, January 3 – 7. P-231.
- 6. Chakraborty P** and Bhattacharjee A. (2014). Accelerated ageing-induced rapid evaluation of storage hardening of a lentil cultivar [*Lens esculenta* (L.) cv.B-77] using herbal reagents. In: National Conference on Current trends in Life Sciences Research and Challenges ahead. February, 28- March,2. At School of Life Sciences, Sambalpur University, Sambalpur, Odisha, India.pp.16-17. (**Awarded best poster presentation**).
- 7. Chakraborty P** and Bhattacharjee A. (2014). Storage potentiation of lentil seeds by herbal manipulation: Its expeditious evaluation by accelerated ageing stress. In national symposium on plant diversity: structure, function, utilization and conservation. At Calcutta University, December 4-6. P-97.
- 8. Chakraborty P** and Bhattacharjee A. (2015). Post-harvest storage invigoration of seeds of a mung bean cultivar by herbal manipulation. In National symposium on “Food and Nutrition: Need for the Future”. At Institute of Agricultural Science, Calcutta University, February 25-27. P-70.
- 9. Chakraborty P** and Bhattacharjee. A. (2015). Chemical-induced modulation of growth, metabolism and yield attributes of a lentil cultivar. In National Seminar on

“Contemporary Progress in Plant Sciences.” At The University of Burdwan, March 20-21. PP-35-36.

10. **Chakraborty P.** and Bhattacharjee A. (2015). Chemical manipulation for invigouration of mung bean seeds and its expeditious evaluation under artificial stress storage environment. *In* “National conference on frontiers in life sciences.” At Sambalpur University, Odisha, India. 12<sup>th</sup>-13<sup>th</sup> December, P-33.
11. **Chakraborty P** and Bhattacharjee A. (2016). Ecofriendly technique for storage invigouration of seeds of a mung bean cultivar using leaf extracts of two medicinal plants. *In* “National seminar on medicinal plants (NSMP-2016)”. At Deptt. of Botany and Forestry, Vidyasagar University, Midnapore, February 16-17, P-64
12. **Chakraborty. P.** and Bhattacharjee. A. (2016). Chemical manipulative technique for post-harvest storage potentiation of seeds of a lentil cultivar. *In* “National conference on Strategies in plant physiological research for meeting challenges in agriculture”. At Banaras Hindu University, Varanasi, March 03-05, P-133.
13. **Chakraborty. P.** and Bhattacharjee. A. (2016). Strategies for prolonged conservation of seed vigour under storage. *In* National Seminar on plant and microbes: diversity and interaction. At Visva Bharati University, March 19-20, p-57.
14. **Chakraborty P.,** Biswas R., Panja A.S., Bhattacharjee A. (2017). Enumeration of Structural stability of phytohormone responsive pathogenesis-related (PR) protein from *Vigna radiata* L. under stress. In Indian Conference on Bioinformatics 2017. November 7-9. P- 55.
15. **Chakraborty. P.** and Bhattacharjee. A. (2018). Comparative analysis of chemical and herbal manipulation of seed invigouration of a pulse seed cultivar for long term storage. In: 105<sup>th</sup> Indian Science Congress, Section of Plant Sciences, Manipur University, March 16-20. P-340.
16. **Chakraborty. P.** and Bhattacharjee. A. (2018). Study of chemical and herbal manipulation of seed hardening of a pulse seed cultivar for long term storage. In: National seminar on “Trends in contemporary research in plant science” Dept. of Botany and Forestry, Vidyasagar University, Midnapore, W.B., India. March 29-30. P-85.
17. **Chakraborty. P.** and Bhattacharjee. A. (2019). Phytohormone mediated hardening of a pulse seed cultivar (*Vigna radiata* L. Cv-PDM 84-139) under stressful storage condition. 106<sup>th</sup> Indian Science Congress, Section of Agriculture and Forestry, LPU, Jalandhar, Punjab, January 3 – 7.

**18. Chakraborty. P.** and Bhattacharjee. A. (2019). Herbal manipulation of crop seeds: an ecofriendly approach **at Gauhati University**, February,4-5.

**International level: 5**

**19. Chakraborty P** and Bhattacharjee. A. (2014). Herbal strategy for invigouration and prolonged conservation of crop seeds under stressful storage. Sixth International Botanical Conference, Dhaka, Bangladesh 6-7 Dec, 2014.p-86.

**20. Chakraborty P** and Bhattacharjee. A. (2016). Chemical manipulation for seed invigouration: an innovative idea in agriculture. In “*India International Science Festival (IISF) – Young Scientists’ Conclave (YSC)*”, at Delhi, Dec 8-11. P-250.

**21. Chakraborty P** and Bhattacharjee. A. (2016). Amelioration of seed deterioration of a lentil (*Lens esculenta* L. cv. B-77) cultivar by ascorbic acid and CCC under stressful storage. In “International Conference on The Green Planet: - Past, Present and Future”. At Calcutta University, December 21-23, p-172.

**22. Chakraborty P** and Bhattacharjee. A. (2017). PGR-induced hardening of a pulse seed cultivar. In International Level Seminar on “Recent trends in Microbiology”. At Ramakrishna Mission Vidyamandira, Belur Math, Howrah, January 14, p-135.

**23. Chakraborty P** and Bhattacharjee. A. (2018). Application of medicinal plant (*Ocimum sanctum* L.) for hardening of a pulse seed species. In: 1<sup>st</sup> International Conference on “Frontiers in Biological, Environmental and Medical Sciences”. At The University of Burdwan, March 8-10. P-36.

**Seminar Symposium attended:**

**24.** 23<sup>rd</sup> S.M. Sircar Conference (2014) organized by Plant Physiology Forum, Bose Institute, Kolkata, India. April 4.

**25.** National Conference on Nanosciences, Nanotechnology and Advanced Materials (2016). At Department of Physics, Birla Institute of Technology, Mesra, Ranchi, Jharkhand, India. September 26-27.

**26.** Genomics and Translational Research in Crop Improvement (2016). At Department of Genetics and Plant Breeding, Ch. Charan Singh University, Meerut, India. December 14-16.

**27.** India International Science Festival 2020 (IIFS 2020) Organised by Ministry of Science & Technology, Ministry of Earth Sciences and Ministry of Health & Family Welfare, Govt. of India. December, 22 – 25.



28. Webinar on the Response of the DBT's Autonomous Institutes to COVID-19- Part-I (2020); Organised by Department of Biotechnology (DBT) in association with DBT/Wellcome Trust India Alliance; August, 21.
29. International Webinar: Microbial Bioactive Compounds: Perspectives and Future, organized by the Universidad Católica del Maule; Chile. September, 2020.
30. National Webinar on **“Skill Development for Teaching, Research and Scientific Writing in Higher Studies” on August, 17, 2020.**