

FACULTY MEMBER ACADEMIC PROFILE



1. **Name of the Faculty member:** Dr. RITUPARNA KUNDU CHAUDHURI
2. **Designation:** Assistant Professor in Botany (W.B.E.S.)
3. **Qualification:** M.Sc. (CU), Ph.D. (CU)
4. **Specialization:** Plant Physiology, Biochemistry & Molecular Biology,
Plant Biotechnology
5. **E-mail address:** rkc2821@gmail.com
6. **Date of Joining in W.B.E.S.:** 22.12.2008 at Bethune College till 3.01.2015
7. **On transfer joined Krishnagar Govt. College on 05.01.2015 till 14.09.2021**
8. **Date of Joining in Barasat Govt. College:** 15.09.2021 till date
9. **Total Teaching experience in College level:** 12+ years (UG + PG)
10. **Research interests:** Plant Biotechnology
11. **Title of thesis (Ph.D.) with year:** “Tissue Culture Studies and Biochemical Analysis of an Indigenous Medicinal Plant *Swertia chirata*” (Awarded in October, 2009)
12. **Research guidance:** Nil
13. **Research Projects (Completed and ongoing):** Nil
14. **List of publications:**
 - A) **Published papers in Journals:**
 1. “Somatic embryogenesis in *Swertia chirata* Buch. Ham. Ex Wall. - A multipotent medicinal herb”, T. B. Jha, A. Dafadar and **R. K. Chaudhuri**, *Asian Journal of Biotechnology*, **2011**, 3(2), 186-193 [ISSN 1996-0700].
 2. “Advances in genetic transformation of important pulse crop Pigeon pea”, G. Ghosh, A. Purohit, **R. K. Chaudhuri** and D. Chakraborti, *Open Access Biotechnology*, March, **2014**, 12, 3(1), 5-10 [ISSN 2052-0069].
 3. “An Efficient *in Vitro* Regeneration Strategy in a Recalcitrant Grain Legume *Vigna radiata*(L.) Wilczek”, A. Maity, D. Chakraborti and **R. K. Chaudhuri**, *Heritage*, August, **2014**, 1, 129-131 [ISSN 2349-9583].
 4. “*In vitro* shoot grafting on rootstock: An effective tool for *Agrobacterium* mediated transformation of Pigeon pea (*Cajanus cajan*(L.) Mill sp.)”, G. Ghosh, A. Purohit, S. Ganguly, **R. K. Chaudhuri** and D. Chakraborti, *Plant Biotechnology*, September, **2014**, 31, 301-308 [ISSN 1467-7652; **IF: 1.056**].
 5. “Biosynthesis of Xanthenes in Higher Plants: A Brief Account”, **R.K. Chaudhuri**, *Conscientia*, December, **2016**, 4(1), 11-16 [ISSN 2278-6554].
 6. “Variability among isolates of *Fusarium udum* and the effect on progression of wilt in Pigeon pea”, A. Purohit, S. Ganguly, G. Ghosh, **R. K. Chaudhuri**, S. Datta and D. Chakraborti, *European Journal of Plant Pathology*, September, **2017**, 149, 73-87 [ISSN 0929-1873; **IF: 1.5**].

7. “Transgenic Pigeon pea events expressing Cry1Ac and Cry2Aa exhibit resistance to *Helicoverpa armigera*”, G. Ghosh, S. Ganguly, A. Purohit, **R. K. Chaudhuri**, S. Das and D. Chakraborti, *Plant Cell Reports*, July, **2017**, 36, 1037-1051 [ISSN 0721-771; IF: 3.088].
8. Development of transgenic pigeonpea using high throughput plumular meristem transformation method, S. Ganguly, G. K. Ghosh, A. Purohit, **R K Chaudhuri**, Dipankar Chakraborti *Plant Cell Tissue Organ Culture* October **2018** DOI:10.1007/s11240-018-1444-3, 135, 1,73-83 [ISSN: 0167-6857 (Print) 1573-5044 (Online), IF: 2]
9. Effective screening of Transgenic Pigeon Pea in Presence of Negative Selection agents, Shreeparna Ganguly, Gourab Kumar Ghosh, Rohini Sreevatsa, Arnab Purohit, **R K Chaudhuri**, Dipankar Chakraborti, *Proceedings of The National Academy of Sciences, India Section B: Biological sciences*, Oct-Dec **2018**, DOI:10.1007/s40011-017-0895-3, 88, 4, 1561-1571 [ISSN: 0369-8211, IF: 0.5]
10. Plumular meristem transformation system for chickpea: an efficient method to overcome recalcitrant tissue culture responses, Shreeparna Ganguly, Gourab Kumar Ghosh, Sanatan Ghosh, Arnab Purohit, **R K Chaudhuri**, Sampa Das, Dipankar Chakraborti, *Plant Cell Tissue Organ Culture* October **2020** DOI:10.1007/s11240-018-1444-3, 142, 493–504 [ISSN: 0167-6857 (Print) 1573-5044 (Online), IF: 2]
11. Elicitation of biomolecules as host defense arsenals during insect attacks on tea plants (*Camellia sinensis* (L.) Kuntze) Sudipta Naskar, Chitraklekha Roy, Sanatan Ghosh, Ananda Mukhopadhyay, Lakshmi Kanta Hazarika, **R. K. Chaudhuri**, Somnath Roy & Dipankar Chakraborti, published 13th September 2021(online), *Applied Microbiology and Biotechnology* <https://doi.org/10.1007/s00253-021-11560-z> ,I.F. 4.8]

B. Book Chapters:

- 1) Purohit A, Ganguly S, Chaudhuri RK, and **Chakraborti D** (2019) Understanding the Interaction of Molecular Factors During the Crosstalk Between Drought and Biotic Stresses in Plants, In: *Molecular Plant Abiotic Stress: Biology and Biotechnology*, First Edition. Editors: Roychoudhury A and Tripathi D K, **John Wiley & Sons Ltd**. Page 427-446.
- 2) Ganguly S, Purohit A, Chaudhuri RK, Das S and **Chakraborti D** (2020) Embryonic explant and plumular meristem transformation methods for development of transgenic pigeonpea, In: *Legume Genomics: Methods and Protocols*, *Methods in Molecular Biology*, vol. 2107, https://doi.org/10.1007/978-1-0716-0235-5_17, Editors: Mukesh Jain and Rohini Garg, **Springer Nature**. Page 317-333.
- 3) Chaudhuri RK and **Chakraborti D** (2021) Bioactive Compounds from *In - vitro* Culture of *Swertia Chirayita* (Roxb. ex Flem.) Karsten: Identification and Quantification, In: *Plant-Based Functional Foods and Phytochemicals: Traditional Knowledge to Present Innovation*, Editors: Megh R. Goyal, Hafiz Ansar Rasul Suleria, Arijit Nath, **Apple Academic Press, Inc.** Page 311-333.(Accepted in 2020, October)

B) Seminar Proceedings:

1. “*Agrobacterium* mediated Transformation of Medicinally Important Herb *Bacopa monnieri* (L.)”, **R. K. Chaudhuri** and D. Chakraborti, In *Proceedings of UGC Sponsored National Seminar on “Prospects of Biotechnology in Rural Bengal”*, organized by School of Life Sciences, Uluberia College in Collaboration with Narasingha Dutta College, Howrah, **2014**, 59-66 [ISBN 978-81-928627-2-9].

15. Membership of Learned Societies/ Editorial Boards, etc.:

1. Member of Indian Science Congress,
2. Member of Botanical Society of Bengal, Calcutta University

16. Patents: Nil

17. Awards: Nil

18. Other notable activities:

Excursions Conducted from Krishnagar Govt. College:

1. Supervised **Educational Excursion** of **34 students** of **UG 2nd Year Botany (Hons)** to Acharya Jagadish Chandra Bose **Indian Botanic Garden** on **1st March, 2016**.
2. Supervised **Educational Excursion** of **26 students** of **UG 2nd Year Botany (Hons)** to Acharya Jagadish Chandra Bose **Indian Botanic Garden** on **14th December, 2016**.
3. Supervised **Departmental Excursion** of **40 students** of **UG 1st Year, 2nd Year and 3rd Year (Hons)** to **Sundarban and adjoining areas** on and from **21st to 23rd February, 2017**.
4. Supervised **Departmental Excursion** of **34 students** of **UG 1st Year, 2nd Year and 3rd Year (Hons)** to **Jaldapara Wildlife Sanctuary and adjoining areas** on and from **15th to 19th December, 2017**.
5. Supervised **Departmental Excursion** of **35 students** of **UG 1st Year, 2nd Year and 3rd Year (Hons)** to **Darjeeling and Adjoining Areas** during **February 2019**.

19. A) Participation in Seminars/Symposia/Conferences/Workshops:

1. Participated in the UGC Sponsored **National Seminar** on ‘*Prospects of Biotechnology in Rural Bengal*’, organized by School of Life Sciences, Uluberia College, in collaboration with Narasingha Dutta College, Howrah on **17th and 18th January, 2014**.
2. **Presented a Poster** entitled “*Correlation between molecular variability and Pathogenesis of Fusarium udum isolates causing wilt of pigeon pea*” in the UGC Sponsored **National Seminar** on ‘*Current Trends in Plant and Microbial Research (CTIPMR) 2016*’, organized by Department of Botany, Raiganj University, Raiganj, Uttar Dinajpur, West Bengal on **16th and 17th March, 2016**.
3. Participated in a **National Workshop** on ‘*GM crops and Food and Environment safety*’ organized by DBT and Bose Institute on **7th September, 2016**.
4. **Presented a Poster** entitled “*Development of selectable marker free transgenic pigeon pea conferring resistance against Helicoverpa armigera*” in the **National Seminar** on ‘*Frontiers in*

- Biotechnology, 2016*’, organized by Department of Biotechnology , St Xaviers College (Autonomous), Kolkata, on **4th October, 2016**.
5. **Presented a Poster** entitled “*Pathogenic variability of Fusarium udum isolates causing wilt of pigeon pea*” in the RUSA funded **International Seminar** on ‘*Recent Trends in Microbiology, 2017*’, organized by Department of Microbiology , Ramkrishna Mission Vidyamandira, West Bengal on **14th January, 2017**.
 6. Participated in the **Regional level Seminar** on ‘*Degenerative Diseases of Brain and Folk Music as a healer*’, organized by Krishnagar Govt. College, on **16th September, 2017**.
 7. Participated in a **National level Seminar** on ‘*Frontiers in Biotechnology, 2017*’, organized by Department of Biotechnology, St. Xaviers College (Autonomous), Kolkata, on **27th October, 2017**.
 8. **Presented a Poster** entitled “*A marker free approach for Insect Resistance transgenic pigeon pea Development*” in the **State Level Seminar** on ‘*Biological Sciences in the New Era: Current Progress and Challenges Ahead*’, organized by Departments of Botany, Physiology, Zoology and Chemistry, at Government General Degree College, Kaliganj on **30th January, 2018**.
 9. Presented a paper on Phylogenetic Relationship of *Fusarium udum* isolates and studies on their wilt pathogenesis in pigeon pea on A Two Day Interdisciplinary National conference on Contemporary Issues on Natural and Anthropogenic Effect in Environmental Crisis, organized by Government General degree College, Tehatta NCCINAEEC-, **15-16th March, 2019**
 10. Presented a paper on Detection Enhancement of bioactive.....in *Swertia chirayita* Roxb. Ex Fleming H. Karst on A Three Day International seminar on Systematic approach to Modern Sciences and its Philosophical Impacts, organized by Bajkul Milani Mahavidyalaya in Collaboration with P.K. College Contai, Purba Medinipur, **6-8th February, 2020**,

B) Participation in OP/RC:

1. Participated in UGC sponsored **Refresher course**, organized by UGC-Academic Staff College, Osmania University **27th July 2020 to 8th August 2020**.
2. Participated in UGC sponsored **Refresher course**, organized by UGC-Academic Staff College, North Bengal University **14th November to 04th December, 2018**.
3. Participated in UGC sponsored **Short Term Course** on ‘*Bioinformatics*’, organized by UGC-HRDC, University of Calcutta, from **25th to 31st January 2017**.
4. Participated in UGC sponsored **Refresher course**, organized by UGC-Academic Staff College, University of Calcutta from **27th March to 20th April, 2015**.