

CURRICULUM VITAE



Dr. JAYITA SAHA

Assistant Professor & Head
Department of Botany

**RABINDRA
MAHAVIDYALAYA**

Champadanga,

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District: Hooghly,

Pin Code-712401,

West Bengal, INDIA.

Academic Profile

- ❖ **Master of Science in Botany (2009)**, (Special paper: **Advanced Cell Biology**), Calcutta University (Ballygaunge Science College), Kolkata.
- ❖ **Bachelor of Science (Honours) in Botany (2007)**, Calcutta University (Bethune College), Kolkata.

Other Qualification

Qualified Joint CSIR-UGC National Eligibility Test for Lectureship (CSIR-UGC NET-LS) at :

- ❖ June, 2010 (Rank- 61)
- ❖ June, 2011(Rank- 26)

Teaching Experience

Engaged in teaching of 1+1+1 System and CBCS (Choice Based Credit System) Undergraduate Honours and General Degree Courses in Botany since December, 2016.

Research Interest

Cell and Molecular biology, Bioinformatics, Plant Physiology and Biochemistry, Phytochemistry, Plant abiotic stress, etc.

Courses Taught

Archegoniate, Plant anatomy, Ecology and Phytogeography, Molecular Biology, Plant Physiology, Plant Metabolism, Agricultural Botany, Genetics and Plant Breeding, Reproductive Biology of Angiosperms, Bioinformatics, Plant Evolution & Biodiversity, etc.

Research Experience

- I. University Research Fellow (21st December, 2015-13th December, 2016), Presidency University.
- II. DST Project Fellow (15th July, 2013- 10th December, 2015), Presidency University.
- III. UGC Project Fellow (14th September, 2012- 3rd June, 2013), Bethune College.
- IV. WBBB Project Fellow (7th February, 2011- 17th March, 2012), Bethune College.
- V. DBT Project Fellow (7th October, 2009- 31st December, 2010), Ballygaunge Science College, Calcutta University.

Professional Association:

- I. Invited reviewer of *Journal of Plant Research*.
- II. Invited reviewer of *Plant Gene*.

Paper Publications:-

1. Saha Jayita, Sadhukhan Pritha, Mukherjee Ronita, Jele Munmun, Ray Roli Shukla, Gupta Kamala, Mukherjee Sutopa and Mukherjee Sumona. Conservation and proliferation of butterflies. *Proceeding of Emerging Trends in Plant Science* 1: 123-127, 2011. (ISBN- 978-93-80673-52-3)

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2. Mitra Taniya, Saha Jayita, Gupta Kamala, Mukherjee Sumona. Antioxidant activity study of the flowers of *Saraca asoca* (Roxb.)Wilde. *Proceeding of Emerging Trends in Plant Science* 1: 96-101, **2011. (ISBN- 978-93-80673-52-3)**
3. Saha Jayita, Mitra Taniya, Gupta Kamala, Mukherjee Sumona. Phytoconstituents and HPTLC analysis in *Saraca asoca* (Roxb.)Wilde. *International Journal of Pharmacy and Pharmaceutical Sciences* 4(1): 96-99, **2012.**
4. Gupta Bhaskar, Sengupta Atreyee, Saha Jayita, Gupta Kamala. Plant Abiotic Stress: 'Omics' Approach. *Plant Biochemistry & Physiology* 1(3): 1000e108. **2013. (Impact Factor: 1.55)**
5. Saha Jayita, Gupta Kamala, Gupta Bhaskar. *In silico* characterization and evolutionary analyses of CCAAT binding proteins in the lycophyte plant *Selaginella moellendorffii* genome: A growing comparative genomics resource. *Computational Biology and Chemistry* 47: 81–88. **2013. (Impact Factor: 1.850)**
6. Saha Jayita, Gupta Kamala, Gupta Bhaskar. Phylogenetic analyses and evolutionary relationships of *Saraca asoca* with their allied taxa (Tribe-Detarieae) based on the chloroplast *matK* gene. *Journal of Plant Biochemistry and Biotechnology* 24(1): 65-74. **2013. (Impact Factor: 0.935)**
7. Saha Jayita, Gupta Kamala, Gupta Bhaskar. A new insight into the phylogeny of vascular cryptogams with special reference to Lycophytes inferred from nuclear ITS/5.8S rDNA sequences. *Journal of Plant Biochemistry and Biotechnology* 23(2): 167-174. **2013. (Impact Factor: 0.935)**
8. Saha Jayita, Mukherjee Sumona, Gupta Kamala, Gupta Bhaskar. High-performance thin-layer chromatographic analysis of antioxidants presents in different parts of *Saraca asoca* (Roxb.) de Wilde. *Journal of pharmacy research* 7(9): 798-803. **2013.**
9. Gupta Bhaskar, Saha Jayita, Sengupta Atreyee, Gupta Kamala. Recent Advances on Virus Induced Gene Silencing (VIGS): Plant Functional Genomics. *Plant Biochemistry & Physiology* 1(5): 1000e116. **2013. (Impact Factor: 1.55)** Continue.....

10. Chanda Sarmishtha, Dasgupta Uma B, Mazumder Debendranath Guha, [Saha Jayita](#), Gupta Bhaskar. Human GMDS gene fragment hypermethylation in chronic high level of arsenic exposure with and without arsenic induced cancer. *SpringerPlus* 2:557. **2013. (Impact Factor: 1.85).**
11. Gupta Kamala, Sengupta Atreyee, [Saha Jayita](#), Gupta Bhaskar. The Attributes of RNA Interference in Relation to Plant Abiotic Stress Tolerance. *Gene Technology* 3:1. **2014. (Impact Factor: 0.83)**
12. [Saha Jayita](#), Chatterjee Chitrita, Sengupta Atreyee, Gupta Kamala, Gupta Bhaskar. Genome-wide analysis and evolutionary study of sucrose non-fermenting 1-related protein kinase 2 (SnRK2) gene family members in *Arabidopsis* and *Oryza*. *Computational Biology and Chemistry* 49: 59–70. **2014. (Impact Factor: 1.850)**
13. [Saha Jayita](#), Elizabeth K. Brauer, Sengupta Atreyee, Sorina C. Popescu, Gupta Kamala and Gupta Bhaskar. Polyamines as redox homeostasis regulators during salt stress in plants. *Frontiers in Environmental Science* 3:21. **2015. (Impact Factor: 2.749)**
14. [Saha Jayita](#), Sengupta Atreyee, Gupta Kamala, Gupta Bhaskar. Molecular phylogenetic study and expression analysis of ATP-binding cassette transporter gene family in *Oryza sativa* in response to salt stress. *Computational Biology & Chemistry* 54:18-32. **2015. (Impact Factor: 1.850)**
15. Gupta Bhaskar, Bhaumik Ushasi, Sengupta Atreyee, Chakrabarty Mayukh, [Saha Jayita](#), Kumar Vikas, Gupta Kamala. Plant Immunity: An Enigma during Biotic and Abiotic Stress. *Plant Biochemistry & Physiology*. 3:2. **2015. (Impact Factor: 1.55)**
16. [Saha Jayita](#), Giri Kalyan. Molecular phylogenomic study and the role of exogenous spermidine in the metabolic adjustment of endogenous polyamine in two rice cultivars under salt stress. *Gene* 609: 88–103. **2017. (Impact Factor: 2.984)**

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17. Saha Jayita, Gupta Kamala, Gupta Bhaskar, Giri Kalyan, Roy Sudipta. Molecular characterization of rice antioxidative isoenzymes and their tissue specific response to exogenous spermidine during salinity in two cultivars. *Research Journal of Life Sciences, Bioinformatics, Pharmaceutical and Chemical Sciences*. 3: 132-152. **2017**.
18. Jayita Saha, Kalyan Giri, Sudipta Roy. Identification and characterization of differentially expressed genes in the rice root following exogenous application of spermidine during salt stress. *Genomics*. **112: 4125-4136. 2020. (Impact Factor: 6.205)**
19. Saha Jayita, Gupta Sumanti. Molecular characterization, evolutionary and phylogenetic analyses of rice ACT/BAT-type amino acid transporters. *Computational Biology and Chemistry*. **100: 107745. 2022**.
20. Saha Jayita, Chaudhuri Dwaipayan, Kundu Anirban, Bhattacharya Saswati, Roy Sudipta, Giri Kalyan. Phylogenetic, structural, functional characterisation and effect of exogenous spermidine on rice (*Oryza sativa*) HAK transporters under salt stress. *Functional Plant Biology*. **2022**

Book Chapter

Sengupta Atreyee, Chakraborty Mayukh, **Saha Jayita**, Gupta Bhaskar, Gupta Kamala. Polyamines: Osmoprotectants in Plant Abiotic Stress Adaptation. *In book: Osmolytes and Plants Acclimation to Changing Environment: Emerging Omics Technologies, Springer* Edition: 1: 97-127. **2016**.

Sequences Submitted to Genbank

1. **Saha Jayita**, Mitra T, Gupta B, Gupta K and Mukherjee S. *Ficus* sp, *matK* gene, partial, GenBank Sequence Accession Number: KC508602, KC508603, KC508604, KC508605, AGK44918, AGK44919, AGK44920, AGK44921
2. **Saha Jayita**, Gupta B, Gupta K and Mukherjee S. *Saraca asoca*, *matK* gene, partial, GenBank Sequence Accession Number: KC592386, AGL91186

Seminar Attended

1. Poster presentation, "DNA damage induced by the chemical components of edible mushrooms on human whole blood cells by single cell gel electrophoresis." 14th All India Congress of Cytology and Genetics (AICCG) Organized by Indian Institute of Chemical Biology, Kolkata and Department of Genetics, University of Calcutta, Kolkata. December 01-04, 2009.
2. Poster presentation, "Antioxidant activity study of the flowers of *Saraca asoca* (Roxb.)Wilde." UGC sponsored National Seminar on "Emerging Trends in Plant Science" jointly organized by PG Department of Botany, Barasat Govt. College, Barasat and Biological Science Division, Indian Statistical Institute, Kolkata. July 14-15, 2011. **[3rd Prize]**
3. Poster presentation, "Conservation and proliferation of butterflies." UGC sponsored National Seminar on "Emerging Trends in Plant Science" jointly organized by PG Department of Botany, Barasat Govt. College, Barasat and Biological Science Division, Indian Statistical Institute, Kolkata. July 14-15, 2011.
4. Poster presentation, "Conservation of Fruit Bats in Bethune College Campus." UGC Sponsored National Level Seminar On "Biodiversity-Crisis, Conservation & Management" organized by department of botany and chemistry, East Calcutta Girls' College, Lake Town, Kolkata in collaboration with West Bengal Biodiversity Board, Dept. of Environment, Govt. of West Bengal. December 8-9, 2011.
5. Poster presentation, "Genome-wide analysis and evolutionary study of Sucrose non-fermenting 1 related protein kinase 2 (SnRK2) gene family members in *Arabidopsis* and *Oryza*." National seminar on "Recent advances in rice genomics and biotechnology" organized jointly by the department of Biotechnology and Palli Siksha Bhavana, Siksha Bhavana (Institute of Science), Visva-Bharati, Santiniketan. March 23-24, 2013. **[1st Prize]**

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6. Poster presentation, “Molecular Phylogenetic and Expression Analysis of ATP-Binding Cassette Transporter Gene Family in *Oryza sativa* in response to salt stress.” 35th Annual meeting of PTCA (I) & National Symposium on “Advances in Plant Molecular Biology and Biotechnology” Organized by Indian Institute of Science Education and Research (IISER), Pune. March 10 –12 2014.
7. Oral presentation, “Evaluation of Antioxidants in the Methanolic Extracts of Flower, Bark and Leaf of *Saraca asoca* (Roxb.)Wilde by DPPH and HPTLC Assay.” 3rd International conference on Ecotoxicology and environmental sciences (ICEES-2011) organized by institute of Ecotoxicology and Environmental sciences, Pubachal, Salt Lake, Kolkata and held at the Miramar residency, Panaji, Goa. November 28-30, 2011.
8. Poster presentation, “Exogenous Application of Spermidine Mitigate the Harmful Effect of Salt Stress in Rice Seedlings.” National Symposium on “Evolving Plant Biology: From Chromosome to genomics” Organized by West Bengal Academy of Science and Technology (WAST). November 27-29, 2014.
9. Poster presentation, “Spermidine ameliorates the harmful effect of salt stress in rice seedlings.” DBT-BUILDER Sponsored National Symposium on “Environmental impact of biodiversity and plant development” Organized by Presidency University. February 19-20, 2015.
10. Poster presentation, “Genome-wide analyses of Polyamine pathway-related genes and the effect of exogenous spermidine in modulating polyamine pathway in two rice cultivars under salt stress” All India Congress of Cytology and Genetics” Jointly Organized by CSIR-Indian Institute of Chemical Biology and Calcutta University. January 29-31, 2018. **[3rd Prize]**
11. Poster presentation “Molecular dissection of rice antioxidative enzymes and their ameliorative response to exogenous spermidine during salinity”. UGC-CPE sponsored International Conference on “Facets of Basic Sciences & Applications”. Organized by Bijoy Krishna Girls’ College, Howrah. February 5-7, 2018.

Webinar Attended

- I. One day National level Webinar on 'Copyright: unravelling the confusions of academe' organized by Rabindra Mahavidyalaya. (10.06.20)
- II. One Day National level Webinar on 'Impact of COVID-19 on Teaching-Learning Environment' organized by Banwarilal Bhalotia College (17.06.20)
- III. One day National level Webinar on 'Struggle for existence: Affect of Anthropocene non-human life forms' organized by Sonamukhi College (20.06.20)
- IV. Two Day International Webinar on 'COVID-19: Pathogen Immunity and Hope' and 'COVID-19: Treatment avenues and Vaccine' organized by City College (20.06.2020-21.06.2020)
- V. One day National level Webinar on 'Discourse on Digital divide and online Education' organized by Prabhat Kumar College. (21.06.20)
- VI. One day National level Webinar on 'Pandemic and societal implications: India and her Neighbours' organized by Kulti College (22.06.20)
- VII. One day National level Webinar on 'The great role of Botanists in production of high quality authentic ayurvedic/ Herbal medicine' organized by Egra Sarada Shashi Bhusan College (25.06.20)
- VIII. One day National level Webinar on 'MicroRNAs: Key Players of Plant Responses to Abiotic stress' organized by Nabadwip Vidyasagar College (30.06.20)
- IX. Four day National level Webinar on 'Current Challenges in Biology' organized by Rabindra Mahavidyalaya (01.07.20-03.07.20, 10.07.20)

- X. One day International level Webinar on 'Pedagogy through the Looking glass: Challenges and Opportunities' organized by Narasinha Dutta College and Naba Ballygaunge Mahavidyalaya (05.07.20)
- XI. Two day National level Webinar on 'Online Education in the changing Times': Problems and Prospects' organized by Vidyasagar University Teachers' Association. (07.07.20-08.07.20)
- XII. Two day National level Webinar on 'Combating COVID-19 crisis and Its aftermath, Insights by Young Researchers' organized by Rabindra Mahavidyalaya (17.07.20-18.07.20)
- XIII. One day National level Webinar on 'Immunity Boosting and vaccine Development' organized by Sreegopal Banerjee College (22.08.20)

Webinars Organized

- I. Organized Two Days National Webinar on "Walk through the Covid-19 Pandemic: viewing by the Lenses of Researchers and Commoners" at Rabindra Mahavidyalaya as Joint Convener (26.06.20-27.06.20)
- II. Organized Scientific Popular Talk as part of the students' extension and dissemination program on 'Antibiotics: Classification, mode of action and resistance mechanism' at Rabindra Mahavidyalaya (04.07.21)
- III. Organized One Day National Webinar on "Bio-Mathematics: a relation between Mathematics and Biology" at Rabindra Mahavidyalaya as Joint Convener (17.07.21)
- IV. Organized One Day Popular talk on "Glimpses of bioinformatics for the beginners" at Rabindra Mahavidyalaya as Joint Convener (21.09.21)

Orientation Program/ Refresher Course/ Short Term Course Attended

- I. Orientation Program (27.07.2020-25.08.2020) from UGC-HRDC, Gujarat University
 - II. Refresher Course in Life Science (07.09.20-20.09.20) from UGC-HRDC, Gujarat University
 - III. Refresher Course in Trends in Life Sciences Industry (25.09.21- 08.10.21) from UGC-HRDC The University of Burdwan
 - IV. Short Term Course on Health, Hygiene and Nutrition (16.09.22-22.09.22) from UGC-HRDC The University of Burdwan
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