# Brief Curriculum Vitae

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Soumen Bhattacharjee, Ph.D.

**Professor & Coordinator, UGC Centre for Advanced Study**
**Department of Botany, University of Burdwan, West Bengal , India.**
***(Formerly, Faculty Delhi University Const. College, Faculty WBES & Senior Scientist, ICAR)***
**E.mail: soumen1995@yahoo.com, sbhattacharjee@bot.buruniv.ac.in**

***Teaching background:*** *PG and UG curriculum of University of Burdwan, UG University of Kalyani and University of Delhi. Total 26 years.*

***Research Background****: Stress Biology of Plants, Phytochemistry of Medicinal and underutized plants. Total 26 years.*

***Research Interests****: Plant Redox Biology, Stress Signaling, Oxidative stress & yield potential of crops, Phytochemistry of Plant Bioactives.*

## ▣ Details of academic information Links:

VIDWAN INFO.: **ID No 197039**
**Link add:** https://vidwan.inflibnet.ac.in/profile/197039
Google Scholar Info.:
**https://scholar.google.co.in/citations?hl=en&user=fpR7818AAAAJ**
ORCID Info.: https://orcid.org/0000-0002-8472-0384

## ▣ *Education*

**Ph.D. (2000), Plant Physiology & Biochemistry,** University of Burdwan, West Bengal, India
**Doctoral Thesis Title:** Abiological stress induced metabolic disfunction in *Amaranthus lividus* (L.) with special reference to amelioration, membrane damage and changing protein profile.
**M.Sc.**
Botany, University of Burdwan, West Bengal, India
Specialization : *Plant Physiology & Biochemistry*
Year : 1992
Remarks : **Ranked 1st in Part II Exam & Overall**
**4th in the University.**

**Other Professional qualifications: UGC NET (JRF), ICAR NET**

## ▣ *Other Research attainments*

Selected by **Agricultural Scientist Recruitment Board, Indian council of Agricultural Research, Govt. of India (ICAR) for the post of Senior Scientist (ARS, Plant Physiology)** and posted at Vivekananda Institute of Hill Agriculture, Almora, Uttarakhand in the year 2007.

## ▣ Research thrust area & activity:

**Research domain: Plant Redox Biology & Phytochemistry of Medicinal plants**

***Research activity:*** *Currently working on following aspects*

***Plant Redox Biology:***

Redox-regulatory mechanism of developmental process under abiotic stress; Redox signaling and stress acclimation; Drought induced redox regulation of aroma (2-acetyl-1-pyrroline) production in rice ; Redox biology of seed potentiation of aromatic rice, Characterizing Bioactive Polyphenolic compounds from underutilized plants

**Phytochemistry**

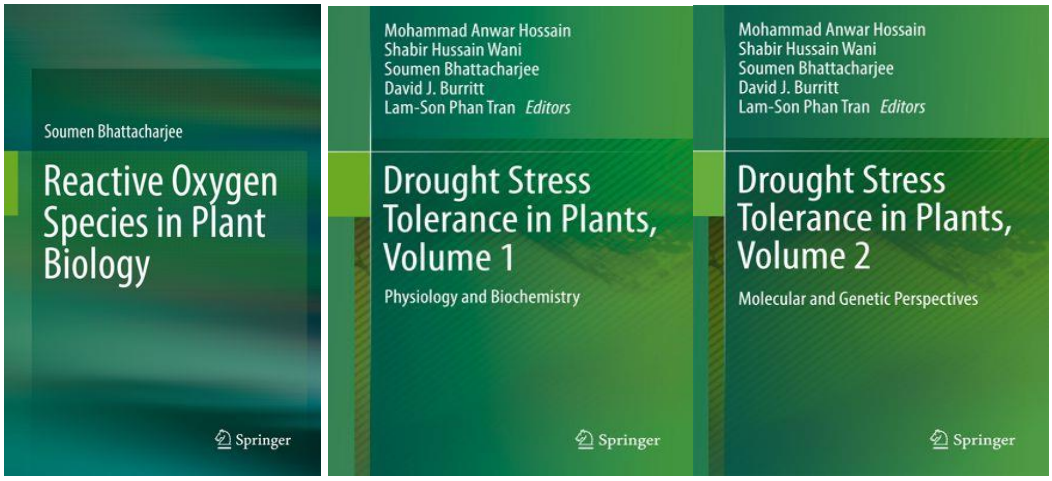
Currently working on promotion of underutilized crops and medicinal plants with an objective to bridge the gap between ethnomedicinal claim with scientific data and also to domesticate them for their rich antioxidant-based phytonutrient promise and stress resistant attributes. Also working on Crop diversification with underutilized potential alternate medicinal crop Amaranths, as the most promising underutilized crops for their phytochemicals with antioxidant potential to combat degenerative diseases. Work also involves understanding role stress elicitation of bioactive polyphenolic compounds of chalcone synthase and cinnamic acid dependent pathways.

Member of European Society of Free Radical Biology, Plant Physiology Forum etc**.** Presently, working as Coordinator of UGS-CAS in Botany (Phase II) of University of Burdwan, West Bengal, on the emerging thrust area of Plant-environment interaction.

## ▣ *Research Impact*

Published 140 papers, out of which 80 papers are published in International peer reviewed Journals. The range of **impact factors varies between 0.4 to 6.9.** As per Google Scholar **total citation is more than 3100. $I_{10}$ index and H- index are 44 & 25 respectively. Pursued six funded Research projects (UGC major, DST SERB, DST-FIST, CSIR, UGC-CAS, DSTBT WB) in last five years. Authored one Monograph on Reactive Oxygen Species in Plant Biology in 2019 (Published by Springer Nature,** DOI: 10.1007/978-81-322-3941-3, ISBN: 978-81-322-3939-0). Also Published two books on Drought stress in 2016 (Springer International **Switzerland** DOI 10.1007/978-3-319-28899-4 & 10.1007/978-3-319-28899-4).

Also working as Associate Editor of Frontiers in Plant Science.




## ▣ Research objectives and glimpses of what we do

My research interest primarily focused on Plant Redox biology for unfolding the role of redox regulation of important biological processes like germination, morphogenesis (adventitious root formation) and abiotic stress response of plants. My approach to deal with this problem is basically to focus on questions that are fundamental in ROS Biology and to address them we explore comprehensive approaches of redox metabolomics, biochemistry, physiology and molecular biology with Omics to unfold System Biology associated with those events. To me the ultimate goal is to explore these pieces of scientific puzzles of Redox Biology to provide the answers of one of the most fascinating aspects of Plant Physiology. Additionally, I also took keen interest in exploring the natural sources antioxidant-based phytonutrient promise and characterization of bioactive secondary metabolites from underutilized agronomically superior crops like diverse germplasms of grain and vegetable amaranth and some underutilized medicinal plants.

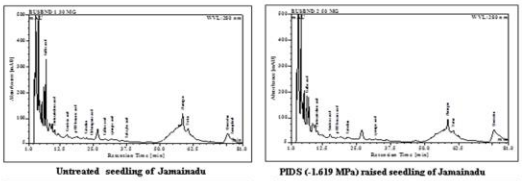



**Fig 1. RP-HPLC chromatogram of 17 redox-sensitive flavonoids & phenolic acids of post-imbibitional dehydration stress (-1.619 MPa) raised seedlings and their corresponding untreated control of two experimental Indigenous Aromatic Rice Cultivars (Oryza sativa L. Jamainadu and Badshabhog).**

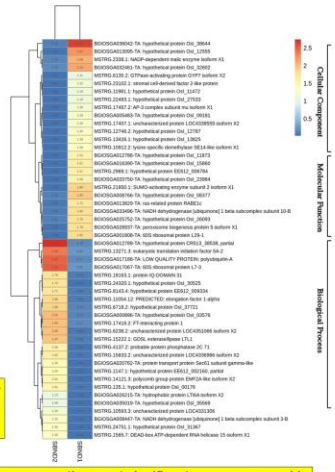


**Fig 3. Heatmap representing most significant genes expressed in all four samples was plotted using log10 of normalized read count values (CPM) for SBND1-Vs- SBND2, where shades of blue represents downregulated genes and shades of red represents highly expressed genes. [SBND1: PIDS (-1.619 MPa)-raised seedlings of IARC, Jamainadu; SBND2: PIDS (-1.619 MPa)-raised seedlings of IARC, Badshabhog]**

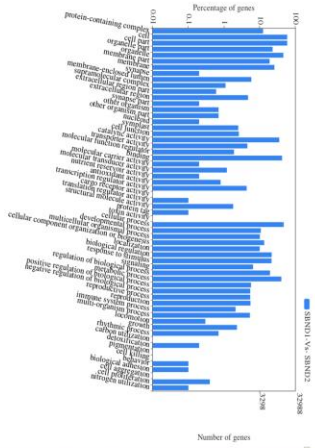



**Fig 4. GO distribution for SBND1-Vs-SBND2 differentially expressed transcripts [SBND1: PIDS (-1.619 MPa)-raised seedlings of IARC, Jamainadu; SBND2: PIDS (-1.619 MPa)-raised seedlings of IARC Badshabhog]**

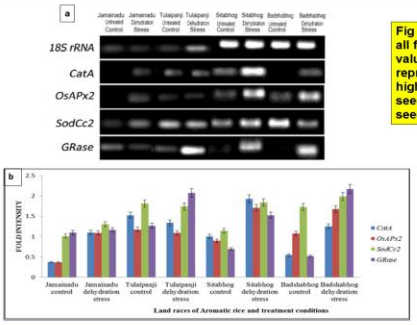



**Fig 2. Transcript abundance of *SodCc2, OsAPx2, GRase* and *CatA* genes of imbibitional dehydration stress raised seedlings of four indigenous aromatic rice varieties [Oryza sativa L., Cultivars Jamainadu, Tulaipanji, Sitabhog and Badshabhog (a)]. Semi-quantitative RT-PCR was performed.The rice 18S rRNA control reaction above each set of corresponding antioxidant gene reactions was conducted on equivalent cDNA batches to verify equivalent loading reaction volumes on the gel. Antioxidant genes were amplified for 25 cycles. Bar diagram represents mean intensity of relative expression of genes (*SodCc2, OsAPx2, GRase* and *CatA*) found in semi-quantitative RTPCR in four indigenous aromatic rice varieties (Oryza sativa L., Cultivars Jamainadu, Tulaipanji, Sitabhog and Badshabhog) under imbibitional dehydration stress (b).**

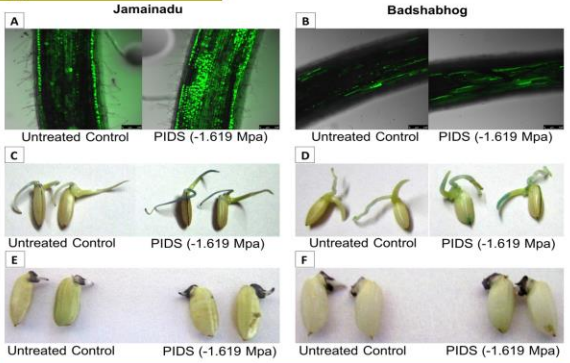



**Fig 5. *In situ* localization of hydrogen peroxide in roots observed through laser confocal microscopy (A & B) and visualization of hydrogen peroxide through TMB staining (C & D) and superoxide through NBT staining (E & F) in post-imbibitional dehydration stress [PIDS (PEG-6000 induced)]–raised experimental IARCs (*Oryza sativa* L. Jamainadu and Badshabhog) as compared to their respective untreated control.**


**Sources:**

**Bhattacharjee S, Dey N (2018) Redox metabolic and molecular parameters for screening drought tolerant indigenous aromatic rice cultivars. *Physiol Mol Biol Plants*, 24(1):7-23.**

**Dey N and Bhattacharjee S (2020) Accumulation of polyphenolic compounds and osmolytes under dehydration stress and their implication in redox regulation in four Indigenous Aromatic Rice Cultivars. *Rice Science,* 27(4):329-344.**

**Dey N and Bhattacharjee S (2021) RNA seq analysis reveal differential expression of genes associated with metabolic reprogramming, defense and signaling in two contrasting indigenous aromatic rice cultivars differing in redox regulatory properties under drought stress. *BMC Plant Biol* (Communicated). doi 10.21203/rs.3.rs-147276/v1**

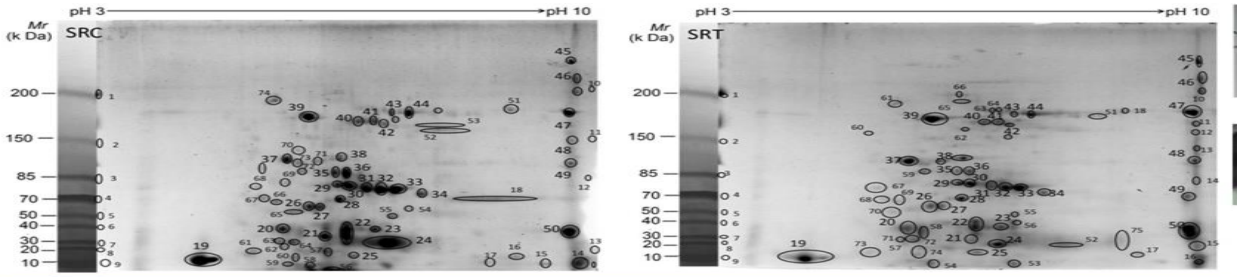




**Fig 3. Protein expression profile (separated by 2DE) of Untreated control and Oxidatively challenged ( 20 mM H2O2 ) seedlings of two indica rice cultivar Ratna & SR26B. In the first dimension (IEF), 150µg of protein was loaded on 7cm IPG strip with linear gradient of pH 3-10, in the second dimension 12% SDS-PAGE was performed. Proteins were visualized by CBB G-250. Protein spots that are well clarified are numbered on 2DE gel map. ( Ph.D thesis Chakrabarty , 2017) .**

## ⧈ *Research group working on Plant Redox Biology*

**Research Fellows presently working under supervision for Ph D**

1. Name of the current Ph D scholars with sub-discipline (both full time and part time)

| Name of the Ph D Scholar | Registration | Nature, whether awarded Ph.D | Sub-discipline |
|---|---|---|---|
| Ananya Chakrabarty | R-Ph.D./Regn./Sc./Bot./148 | UGC Fellow, **Ph.D awarded** | Plant Redox Biology |
| Manashi Aditya | R-Ph.D./Regn./Sc./Bot./147 | **Ph.D awarded** | Phytochemistry & Antioxidant |
| Sudeshna Duitta | R-Ph.D/Regn/Sc/Bot/163/1(4) | BSI Fellow, **Ph.D awarded** | Phytochemistry of Bioactive Secondary Metabolite |
| Nabanita Banik | R-Ph.D/Regn/Sc/Bot/A/146 | **Ph.D awarded** | Plant Redox Biology |
| Nivedita Dey | R-Ph.D./Regn./Sc./Bot./55 | State Fellow **Ph D awarded** | Plant Redox Biology |
| Durga Kora | R-Ph.D/Regn/Sc/Bot/ | UGC Fellow, **Ph D Awarded** | Plant Redox Biology |
| Uthpal Krishna Roy | R-Ph-D./Regn./Sc./Bot./160/1(4) | **ICCR Overseas Fellow, Thesis submitted** | Plant Redox Biology |
| Debasmita Sen | R-Ph.D/Regn/Sc/Bot/212 | DSTBT (WB) Fellow | Plant Redox Biology |
| Ananya Dey | R-Ph.D/Regn/Sc/Bot/583 | CSIR Fellow | Plant Redox Biology |
| Babita Pal | R-Ph.D/Regn/Sc/Bot/110 | CSIR Fellow | Seed Biology |
| Angnideepa Pal | R-Ph.D/Regn/Sc/Bot/126 | UGC Fellow | Phytochemistry and Ethnomedicine |
| Debashree Dey | pending | DST-SERB Fellow | Redox Biology of Aromatic rice |

## ◙ Recent Research Projects ( In last 10 years)

| S. No | Title | Cost in Lakh | Duration | Role as PI/CoPI | Agency | Status |
|---|---|---|---|---|---|---|
| 1. | Modeling redox landscape and identification of candidate hub genes regulating drought stress induced physiology of flag leaves and kernel aroma quality (2-acetyl-1- pyrroline) in indigenous aromatic rice cultivars of Rarh West Bengal | 43,00000/- | Dec, 2021 | PI | DST-SERB Govt of India | Running |
| 2. | Screening Amaranths commonly cultivated in Gangetic West Bengal for their Photochemicals having Antioxidant properties and stress tolerance attributes. | 1676920/- | May, 2017 | PI | DSTBT, Govt of West Bengal | Running |
| 3. | Elucidation of role of MYB transcription factor in UV stress signaling in *Arabidopsis* | 2900000/- | June 2016 | Co-PI | CSIR | Completed |
| 4. | Plant- environment, microbe interaction for augmenting agricultural productivity and restoring biodiversity of floras of Southern west Bengal | 10800000/- | March, 2020 | CO-PI | DST-FIST Govt of India | Running |
| 5. | Understanding the relationship between oxidative stress, growth and yield potential with special reference to chemical management of oxidative stress for augmenting productivity in rice (*Oryza sativa* L. Cultivar Ratna and SR26B | 1560000/- | Three years | PI | UGC major Govt of India | Completed on June 2017 |
| 6 | Biochemistry, genetics and biosystemetc study of some selected medicinal plants of West Bengal | **84,75,000/- (sanctioned Am.)** | Five years | **Coordinator (PI)** | UGC CAS, Phase II Govt of India, | Completed and settled on March 2020. |
| 7. | Assessment of the role of Reactive oxygen Species (ROS) in germination and early growth performances with special reference to their implication in | **450000/-** | Three Years | **PI** | UGC, Govt of India | Completed |

| | | | | | | |
|---|---|---|---|---|---|---|
| | acclamatory stress tolerance and signaling in three rice cultivars, Ratna, Hamilton and SR 26B | | | | | |

## ◙ Publications *(List of some Books & papers published in SCI Peer reviewed International Journals)*

### *Books in Springer Nature / Springer International*

1. Bhattacharjee S. **Reactive Oxygen species in Plant Biology.** (2019). **Springer Nature.** DOI: 10.1007/978-81-322-3941-3, ISBN: 978-81-322-3939-0

2. Drought Stress Tolerance in Plants, Volume 1 : Physiology and Biochemistry . Eds. Hossain MA, Wani, SH, **Bhattacharjee Soumen**, Buritt, D, Son Lam. ( 2016).. **Springer International Pub. Switzerland** DOI 10.1007/978-3-319-28899-4.

3. Drought Stress Tolerance in Plants Vol 2 : Molecular and Genetic perspective: Eds. Hossain MA, Wani, SH, **Bhattacharjee Soumen**, Buritt, Son Lam. ( 2016).. **Springer International Pub. Switzerland** .OI 10.1007/978-3-319-28899-4. Date of publication Aug. 15, 2016.

### *Some Research papers in International Peer reviewed journals*

1. Kora, D, Dey A, Pal B , Roy U.K., Dey N, Bhatacharjee T, Bhattacharjee S (2023). ROS-hormone interaction in regulating integrative defense signaling of plant cell, ***Biocell***, 023 47(3): 503-521. DOI: 10.32604/biocell.2023.025744.

2. Bhattacharjee, S., Chakrabarty, A., Kora, D. *et al*. Hydrogen Peroxide Induced Antioxidant-Coupled Redox Regulation of Germination in Rice: Redox Metabolic, Transcriptomic and Proteomic Evidences**.** ***Journal of Plant Growth Regulation.*** **Springer Nature** 2022).https://doi.org/10.1007/s00344-022-10615-3

3. Dey A, Bhattacharjee S (2022). Temporal Regulation of Oxidative Window and Hormonal Homeostasis Are the Key Events Regulating Germination Under Salinity and Oxidative Stress. ***Journal of Plant Growth Regulation*** **Springer Nature** https://doi.org/10.1007/s00344-022-10756-5

4. Roy U.K. and Bhattacharjee S (2022). Exploring the parameters of central redox hub for screening salinity tolerant rice landraces of coastal Bangladesh. ***Scientific Reports. Nature Portfolio*** | (2022) 12:12989 | **https://doi.org/10.1038/s41598-022-17078-2**

5. Kar A, Bhattacharjee S (2022) Bioactive polyphenolic compounds, water-soluble vitamins, *in vitro* anti-inflammatory, anti-diabetic and free radical scavenging properties of underutilized alternate crop *Amaranthus spinosus* L. from Gangetic plain of West Bengal. ***Food Bioscience. Elsevier.*** 50(A), 102072. DOI https://doi.org/10.1016/j.fbio.2022.102072.

6. Aditya M, Sen D, Bhattacharjee S (2022). Drought tolerance promoted by complementation of ascorbate-glutathione system and antioxidant-rich phytochemicals in *Amaranthus hypochondriacus* L. ***JSFA Reports. Wiley*** **DOI http://doi.org/10.1002/jsf2.89.**

7. Datta S, Bhattacharjee S and T. Seal (2022). Anti-diabetic, anti-inflammatory and anti-oxidant properties of four underutilized ethnomedicinal plants of West Bengal, India: an in vitro approach. ***South African Journal of Botany. Elsevier*** (2022), **https://doi.org/ 10.1016/j.sajb.2022.06.02**

8. Sen D, Bhattacharjee S. Genetic and seasonal variability of bioactive polyphenolic compounds and antioxidant-based phytonutrient promise of diverse vegetable amaranths of Indo-Gangetic plains of West Bengal. **JSFA Reports (Wiley).** 2022;1–15. https://doi.org/10.1002/jsf2.34

9. Mohammad A. Hossain, Soumen Bhattacharjee, Saed-Moucheshi Armin, Pingping Qian, Wang Xin, Hong-Yu Li, David J. Burritt, Masayuki Fujita and Lam-Son P. Tran. Hydrogen Peroxide Priming Modulates Abiotic Oxidative Stress Tolerance: Insights From Ros Detoxification And Scavenging Mohammad A. In: Anjum, N. A., et al. , eds. (2022). Recent Insights Into the Double Role of Hydrogen Peroxide in Plants. **Lausanne: Frontiers Media SA**. **doi: 10.3389/978-2-88974-524-1**

10. Kar A, Bhattacharjee S. (2022) Exploring Polyphenol Based Bioactive Antioxidants of Underutilized Herb Amaranthus Spinosus L. for Medicinal Purposes. ***J Explor Res Pharmacol***;. **doi: 10.14218/JERP.2022.00012.**

11. Banik N, Dey N, Bhattacharjee S (2022) Salinity induced redox metabolic shift influence hormonal profile and germination performance of two contrasting indica rice cultivars. **Ann Syst Biol** 5(1): 001-007. DOI: https://dx.doi.org/10.17352/asb.000016.

12. Nabanita Banik, Durga Kora and, Uthpal Krishna Roy, Soumen Bhattacharjee*. (2022). LC-MS/MS Based Label Free Quantitative Shotgun Proteomics Revealed Contrasting Responses of Rice Germplasms towards Salinity and Identified Expression of Redox-Regulatory Proteome. **J Genetic Engg & Biotech Res**, 4(2),183-194

13. Sen D, Aditya M, Bhattacharjee S (2022). Polyphenol based therapeutic potential of Amaranths. In : A closer look into Polyphenolics. Nova Sci Pub Inc, New York, USA DOI: https://doi.org/10.52305/QQNR6474

14. Kora, D**.,** Bhattacharjee, S., 2021. Redox regulation of adventitious root formation through downstream changes in hormonal system in mung bean [*Vigna radiata* (L.) R. Wilczek]. **Ann Syst Biol** 4(1): 005-012. Doi: https://dx.doi.org/10.17352/asb.000011

15. Kora D and Bhattacharjee S (2020) The interaction of reactive oxygen species and antioxidants at the metabolic interface in salicylic acid-induced adventitious root formation in mung bean [*Vigna radiata* (L.) R. Wilczek]. J**ournal of Plant Physiol. (Elsevier). doi: 10.1016/j.jplph.2020.153152.**

16. Kora D and Bhattacharjee S (2020). Redox gateway associated with adventitios root formation under stress and hormonal signaling in plants. **Current Science.** 119(03) 462-472. doi :10.18520/CS/v119/i3/462-472

17. Banik N and Bhattacharjee S. (2020) Complementation of ROS scavenging secondary metabolites with enzymatic antioxidant defense system augments redox-regulation property under salinity stress in rice. **Physiology and Molecular Biology of Plants. Springer.** DOI 10.1007/s12298-020-00844-9

18. Dey N and Bhattacharjee S (2020) Accumulation of polyphenolic compounds and osmolytes under dehydration stress and their implication in redox regulation in four Indigenous Aromatic Rice Cultivars. **Rice Science (Elsevier)**27(4): 329-344.

**19.** Aditya M, Sen D, Bhattacharjee S (2020). Amaranth: A reservoir of antioxidant- based phytonutrient for combating degenerative diseases. **Plant Natural Product Chemistry (Bioactive compounds). Elsevier.DOI:http://doi.org/10.1016/B978-0-819483-6.00003-5**

20. Chakrabarty A, Banik N, Bhattacharjee S (2019). Redox regulation of germination in an indica rice cultivar (*Oryza sativa* L. Cultivar Ratna). **Physiol & Mol Biol of Plants. Springer Nature**.DOI: 10.1007/s12298-019-00656-6.

21. **Dey N, Roy UK, Aditya M and Bhattacharjee S (2020)** Defensive strategies of ROS in programmed cell death associated with hypertensive response in plant pathogenesis. **Annals of Systems Biology** 3(1): 001-009

22. Dey N and Bhattacharjee S. Oxidative Membrane Lipid Peroxidation and Accumulation of Redox Sensitive Polyphenolic Compounds Serves as Sensitive Redox-Metabolic **Biomarkers of Drought Stress of Rice. Aust. J Plant Biol.** 2019; 5(1): 1021.

23. **B**hattacharjee S. 7 Dey N. (2017). Redox metabolic and molecular parameters for screening drought tolerant indigenous aromatic rice cultivars. **Physiol & Mol Biol of Plants. Springer Nature.** DOI :10.1007/s12298-017-0484-1.

24. Dutta S , Sinha B.K. Bhattacharjee S. Seal T. (2019). Nutritional composition, mineral content, antioxidant activity and quantitative estimations of water soluble vitamins and phenolics by RP-HPLC in some lesser known wild edibles. **Heliyon (Elsevier).** DOI: 10.1016/J.helion.2019e01431.

25. Aditya M, Sil T, Bhattacharjee S (2018) RP-HPLC and GC-MS based Identification of Phenolic Acids, Flavonoids and Hydroxyl Containing Compounds from One of the Lead Accessions of *Amaranthus hypochondriacus* L. Identified on the Basis of Biomarkers of Antioxidant Potential. **Basic Appl Pharm Pharmacol** 1(1):102. DOI: 10.31021/bapp.20181102.

26. Karmakar A, Sarkar N, Bhattacharjee S and Barik A.(2018) Antioxidant enzymes in *Solena amplexicaulis* (Lam.) Gandhi (Cucurbitaceae) plants against feeding damage by *Aulacophora foveicollis* Lucas (Coleoptera: Chrysomelidae). **Allelopathy Journal.** 44 (2): 285-298**.** doi.org/10.26651/allelo.j/2018-44-2-1170.

27. Aditya M and Bhattacharjee S (2018) Rich Foliar Antioxidant Based phytonutrient Potential of a Grain Amaranth (*Amaranthushypochondriacus* L.): RP-HPLC Based Evidences. **AASCIT Journal of Bioscience** 4(2)pp. 17-21.

**28.** Aditya M and Bhattacharjee S (2018) Foliar anti-diabetic and antioxidant potential of a promising accession of *Amaranthus hypochondriacus* L.: GC-MS based evidences. **The Journal of Phytopharmacology 7(2): 121-126**

29. Dey N & Bhattacharjee S. (2017). Redox metabolic and molecular parameters for screening drought tolerant indigenous aromatic rice

cultivars. **Physiol & Mol Biol of Plants. Springer Nature**. DOI :10.1007/s12298-017-0484-1.

30. Aditya M and Bhattacharjee S (2017) GC-Mass Based Evidences of Rich Foliar Antioxidant Potential of A Seed Amaranth Amaranthus hypochondriacus L. Accession No. IC47434). **Annals of Pharmacology and Pharmaceutics** 2(18): 1097-1099.

31. Chakrabarty A, Aditya M, Dey N, Banik N, Bhattacharjee S (2016) Antioxidant signaling and redox regulation in drought and salinity stressed plants. **In Drought stress tolerance in plants, Springer International (Hossain et al. eds.) doi 10.1007/978-3-319-28899-4.**

32. Dutta S., Seal T, Sinha, B.K. & Bhattacharjee S. (2018) HPLC based identification of water soluble vitamins and neutraceutical value of three common grasses of West Bengal. **Saudi j. of Life Sci**. 03(04). DOI :10.21276/haya.2018.3.4.5

33. Dutta S., Seal T, Sinha, B.K. & Bhattacharjee S. (2018). Management of Invasive alien species(IAS) of West Bengal via bioprospecting for a potential source for food supplement. . **Int. J. of Food Sci. & Nutri**.03(02): 89-94.

34. Datta S, BK Sinha, Bhattacharjee S and Seal T. (2018) Effect of solvent extraction system on the antioxidant activities of three invasive alien species and quantification of phenolic compounds by HPLC. **Journal of Pharmacognosy and Phytochemistry.** 7(2): 3963-3970.

35. Datta S, Seal T, Sinha BK and Bhattacharjee S.(2018) Effect of solvent extraction system on the antioxidant activity and RP HPLC based determination of phenolic and water soluble vitamins in an annual herb Mazus pumilus. **The Pharma Innovation Journal.** 2018;7(6): 09-15.

36. Datta S, Seal T, Sinha BK, Bhattacharjee S .(2018). RP-HPLC based Evidances of rich sources of Phenolics and water soluble vitamins in an annual sedge *Cyperus compressus.* **The Journal ofphytopharmacology** . 07 (03)

37. **Hossain,MA, Bhattacharjee S, et al.** (2015). Hydrogen peroxide priming modulates abiotic oxidative stress tolerance: insight from ROS detoxification and Scavenging. **Frontiers in plant Science.** DOI:10.3389/fpls.2015.00420. pp 1-19.

**38. Chakraborty A and Bhattacharjee, S (2015).** Differential competence of redox- regulatory mechanism under extremes of temperature determines

growth performances and cross tolerance in two indica rice cultivars. **Journal of Plant Physiol. (Elsevier).176:65-77**. DOI:**20.**

39. **Bhattacharjee, S. (2014).**Membrane lipid peroxidation and its conflict of interest: two faces of oxidative stress. **Current Science**.107(11):1811-1823.DOI:

40. **Hossain,M.A., Bhattacharjee, S., Chakraborty, A., Buritt, D.J., Fujita MA. (2015).** Hydrogen peroxide mediated salt stress tolerance in plants:signalling role and possible mechanisms**. Managing salinity tolerance in Plants:Molecular and genomic perspectives. CRC Press, Taylor & Francis. Cat # k23522, ISBN 978-1-4822-41513-1.**

41. **Bhattacharjee, S. (2014).** Reactive oxygen species associated mechanism of acclamatory stress tolerance , signalling and redox-regulated gene expression in plants. **Plant signaling: Understanding the molecular crosstalk, DOI 10.1007/978-81-322-1542-4_8, © Springer India, pp 149-175**

42. **Bhattacharjee, S. (2014).** Reactive oxygen species associated mechanism of acclamatory stress tolerance , signalling and redox-regulated gene expression in plants. **Plant signaling: Understanding the molecular crosstalk, DOI 10.1007/978-81-322-1542-4_8, © Springer India, pp 149-175**

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## ▣ **Work experience** (*in chronological order – Last 5*)

| Sl. No. | Designation | Name of the Institute/Organization | Responsibility |
|---|---|---|---|
| 1. | Professor of Botany | University of Burdwan | Teaching, Research, Administrative (Former HoD, Coordinator, UGC-CAS) |
| 2. | **Associate Professor & Reader** | West Bengal Education Service | Teaching, Research |
| 3. | Senior Scientist (Agricultural Research Service) | Indian Council of Agricultural Service (ICAR), VPKAS, Almora | Research |
| 4. | Lecturer/ Senior Lecturer | West Bengal Education Service | Teaching, Research |
| .5. | Lecturer | Sherubtse College, **(Under the University of Delhi)** | Teaching, Research |