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# **EDUCATION**

Department of Botany, University of Calcutta	Kolkata, India
<b>Ph.D</b> in Botany on the topic of "Dissecting the role of <i>Os</i> R40C1 protein under Grice"	Osmotic stress in 2018-2023
Department of Botany, University of Calcutta	Kolkata, India
<b>M.Sc</b> in Botany (Special Paper: Molecular Mycology and Plant Pathology), 1 <sup>st</sup> Class	2013-2015
City College, University of Calcutta	Kolkata, India
<b>B.Sc</b> in Botany (Honours), 1 <sup>st</sup> Class	2010-2013
Lalbagh Singhi High School, W.B.C.H.S.E. Higher Secondary, Science, 1 <sup>st</sup> Class	Murshidabad, India 2008-2010
Chhatai High School, W.B.B.S.E	Murshidabad, India
Secondary, 1 <sup>st</sup> Class	2008

### STATE LEVEL EXAMINATION QUALIFIED

### WBSET, 2016

#### **PROFESSIONS**

• Working as an Assistant Professor in Botany at A.P.C Roy Govt. College Siliguri from 6<sup>th</sup> August, 2021.

# **RESEARCH INTEREST**

**Signal Attenuation in Plant Stress Biology (A Pathway to Global Food Security)**: Plant stress and developmental biology, in particular the mechanisms of signal attenuation between small molecular proteins, are the main areas of my study interest. It is essential to comprehend how plants adjust signaling pathways controlled by receptor-like kinases and short peptides in order to maximize growth and stress responses in challenging environments. Without sacrificing developmental processes, this understanding can help create techniques to increase crop tolerance to climate induced stresses

including heat, salinity, and drought. I want to find important regulators of stress signaling and attenuation that may be used to increase crop output and sustainability by combining molecular biology, genomics, and systems biology techniques. My goal over the coming years is to help ensure global food security by creating resource efficient and stress-resilient crops through creative, scientific solutions that will allow agriculture to adjust to changing conditions and feed a growing population.

# **RESEARCH PUBLICATION**

- Roy C, Sahid S, Dasgupta J, Roy A, Shee D, Datta R, Paul S (2025). Osr40g3 imparts salinity tolerance by regulating GF14e-mediated modulation of gibberellin metabolism to activate expansin protein, EG45 in rice.
  Plant and Cell Physiology, pcaf023. <u>https://doi.org/10.1093/pcp/pcaf023</u>. IF-4.7
- Roy C, Sahid S, Datta R, Paul S (2024). Ectopic expression of *Osr40g3* confers salt tolerance in *Arabidopsis* thaliana. Journal of the Botanical Society of Bengal 78(1): 62-70, ISSN 0971-2976. IF-0
- 3. Shee R, Shee D, Sahid S, Paul S, Datta R (2023). Glutathione activates *PHT1;5* gene via WRKY75 transcription factor to regulate phosphate homeostasis in *Arabidopsis*. (BioRxiv) <u>doi.org/10.1101/2022.11.03.515049</u>. (Communicated)
- 4. Saha T, Shee R, Sahid S, Shee D, Roy C, Sharma R, Pandey A, Paul S, Datta R (2023). Designer grass pea for transgene-free minimal neurotoxin-containing seeds with CRISPR-Cas9. (BioRxiv) <u>https://doi.org/10.1101/2023.03.26.534271</u>. (Communicated)
- Sahid S, Roy C, Shee R, Shee D, Datta R, Paul S (2023). Drought responsive transcription factors NAC94, ZFP37, bHLH148 and CCCH6 Positively regulates *r40c1* expression to impart drought tolerance in rice. Environmental and Experimental Botany, 214: 105480. IF-4.5
- Shee R, Ghosh S, Khan P, Sahid S, Roy C, Shee D, Paul S, Datta R (2022). Glutathione regulates subcellular iron homeostasis via transcriptional activation of iron responsive genes in *Arabidopsis*. Plant Cell and Environment 45(7): 2176-2190. IF-7.3
- Sahid S, Roy C, Shee D, Datta R, Paul S (2021). Jacalin domain-containing protein OsSalT interacts with OsDREB2A and OsNAC1 to impart drought stress tolerance in planta. Environmental and Experimental Botany 183:104362. IF-6.02
- Sahid S, Roy C, Datta R, Paul S (2020). Rice lectin protein Osr40c1 imparts drought tolerance by modulating OsSAM2, OsSAP8 and chromatin-associated proteins. Journal of Experimental Botany 71 (22): 7331–7346. IF-6.93

9. Acharya K, Khatua S, Sahid S (2015). Pharmacognostic standardization of *Macrocybe crassa*: an imminent medicinal mushroom. Research journal of Pharmacy and Technology 8 (7): 860-866. ISSN 0974-3618. IF-0.8

# **BOOK CHAPTER**

Improving Abiotic Stress Tolerance in Plants. Datta R, Sahid S, Paul S (2020) Networking by Small Molecule Hormones during Drought Stress in Plants. CRC Press Taylor & Francis Group.

# AWARDS

- 1. **PhD** Awarded by **University of Calcutta (2023)**
- Best Poster presentation award on 'an insight into the role of Osr40c1 in regulating drought stress tolerance in rice' at the International Conference on Food and Nutritional Security held during January 6-9, 2023 at NABI, Mohali, India.
- Best Poster award in the National Conference of Plant Physiology-2021 organized by ICAR-National Institute for Abiotic Stress Management, Pune & Indian Society for Plant Physiology, New Delhi, India.
- 4. Best Oral presentation award on '' Rice r40c1 protein: a novel regulator of osmotic stress tolerance responses in plants'' in the National Virtual Conference on Genomics to Phonemics: A New Horizon in Plant Science Research (2021) Organized by University of Calcutta, Kolkata, India.
- 5. Senior Research Fellow under DST- PURSE, University of Calcutta (2019-2020)