Curriculum Vitae

Name	**Dr. Soumya Mukherjee**
Designation	Assistant Professor
Department	Botany
Institution	Jangipur College
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Academic Qualification

Examination	College/University	Year of Passing
B.Sc (Botany Hons)	Asutosh, College, University of Calcutta	2008
M.Sc (Botany)	Department of Botany, University of Delhi	2010
NET-JRF	CSIR	2010
Ph.D	Department of Botany, University of Delhi	2015

Teaching Experience

Organization / Institution	Designation	Duration
Department of Botany, Shivaji College, University of Delhi	Guest Lecturer	8.1.2015-19.3.2015
Department of Botany, Shivaji College, University of Delhi	Assistant Professor (Adhoc)	20.3.2015-30.6.2015
Department of Botany, Ramjas College, University of Delhi	Assistant Professor (Adhoc)	1.7.2015-5.12.2016
Department of Botany, Jangipur College, University of Kalyani	Assistant Professor (Permanent)	6.12.2016- present

Area of Specialization:
Physiology and molecular biology of plant stress tolerance

Ongoing Research Project
SURE-DST-SERB Fund- 21.5 lakhs
"*To investigate the potential role of melatonin in regulation of NaCl-stress tolerance, seed yield, and seed lipid composition in sunflower (Helianthus annuus L.) cultivars of West Bengal"*

Publications (*Top Ten*- SCOPUS indexed)

1. Mukherjee S, Roy S, Arnao MB. Nanovehicles for melatonin: a new journey for agriculture. Trends Plant Sci. **2024** Feb;29(2):232-248. doi: 10.1016/j.tplants.2023.11.016.

2. Mukherjee S, Roy S, Corpas FJ. Aquaporins: a vital nexus in H_2O_2-gasotransmitter signaling. Trends Plant Sci. **2024** Jan 9:S1360-1385(23)00380-1. doi: 10.1016/j.tplants.2023.11.021

3. **Mukherjee, S**., Bhatla, S.C. Exogenous Melatonin Modulates Endogenous H_2S Homeostasis and L-Cysteine Desulfhydrase Activity in Salt-Stressed Tomato (*Solanum lycopersicum* L. var. cherry) Seedling Cotyledons. *J Plant Growth Regul* **40**, 2502–2514 (**2021**). https://doi.org/10.1007/s00344-020-10261-7

4. **Mukherjee S**. Insights into nitric oxide-melatonin crosstalk and N-nitrosomelatonin functioning in plants. J Exp Bot. **2019** Nov 18;70(21):6035-6047. doi: 10.1093/jxb/erz375.
5. **Mukherjee S**, Corpas FJ. H_2O_2 , NO, and H_2S networks during root development and signalling under physiological and challenging environments: Beneficial or toxic? Plant Cell Environ. **(2023)** Mar;46(3):688-717. doi: 10.1111/pce.14531

6. **Mukherjee, S**., Bhatla, S.C. Endogenous Serotonin Accumulation Coincides with Reorganization of Auxin Efflux Protein (PIN1) and Actin (ACT8) Accompanying Primary Root Growth Inhibition in NaCl-Stress-Induced Etiolated Sunflower (*Helianthus annuus*; cv. KBSH 44) Seedlings. *J Plant Growth Regul* **42**, 5192–5202 **(2023)**. https://doi.org/10.1007/s00344-023-11046-4

7. **Mukherjee S**, Geetika Kalra, Satish C. Bhatla. Trifluoperazine (TFP)-mediated fluorescence imaging approach reveals a probable calmodulin (CaM)-independent calcium signaling accompanying differential protein phosphorylation in NaCl-stressed sunflower seedlings (Helianthus annuus L. var. KBSH44) South African Journal of Botany, https://doi.org/10.1016/j.sajb.2022.08.008. 2022 **(2022)**

8. **Mukherjee S**, Rewaj Subba, Fahad M. AlZuaibr, Piyush Mathur, Auxin and hydrogen peroxide (H2O2) interaction differentially regulate seedling growth, Na+/K+ ratio and H2S homeostasis accompanying NaCl stress in etiolated sunflower (Helianthus annuus L. cv. Microgreen) seedling roots and cotyledons, South African Journal of Botany, **(2024)** https://doi.org/10.1016/j.sajb.2024.01.068

9. **Mukherjee S**, M.Nasir Khan, Piyush Mathur, Exogenous calcium (Ca2+) and verapamil-sensitive Ca2+ channel activity differentially modulates melatonin-mediated regulation of endogenous hydrogen sulphide (H2S) homeostasis, and L-cysteine desulfhydrase (L-DES) activity in NaCl-stressed etiolated sunflower seedlings, South African Journal of Botany, **(2023)** https://doi.org/10.1016/j.sajb.2022.11.029.

10. Subba, R., Dey, S., **Mukherjee, S.** *et al.* Elucidating the role of exogenous iron (Fe) in regulation of hydrogen sulphide (H_2S) biosynthesis and its concomitant effect on seedling growth, pigment composition and antioxidative defense in NaCl stressed tomato seedlings. *Acta Physiol Plant* **45**, 135 **(2023).** https://doi.org/10.1007/s11738-023-03615-7

Paper Presented/Attended/Resource Person in Seminar/Conference/Workshops/FDP's (*Top Ten*):

Paper presented - Regional Science and Technology congress- South zone- University of Kalyani- 2017

Resource Person- Lead Speaker- **Two Days National Seminar (Online Mode)** on **Advancement of Plant Sciences for Food Diversity and Nutritional Security** that was held on **30th September and 1st October 2021**, at Department of Botany North Bengal University

Session Judge – 6th Regional Science and Technology congress- South zone- Govt. Engineering and Textile College, Berhampore, 2024
Other details **Ph.D co-supervision (ongoing) - 2**