College of Post Graduate Studies in Agricultural Sciences

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FACULTY PROFILE

Dr. Hossain Ali Mondal

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AssociateProfessor
School of Crop Improvement

- **Post Doc.** University of North Texas (UNT), Texas, USA.
- **Ph.D.** Bose Institute, Kolkata (Degree awarded by Jadavpur University, Kolkata, WB).
- **M.Sc.**Genetics (BCKV, Mohanpur, WB).

Specialization : Genetics and Molecular Biology of Plant Defense response to Insect.

Teaching / Research Experience:

- ✓ 5 years 7 months in UBKV as Assistant Professor,
- ✓ 3 years 8 months in USA,
- ✓ 10 Months as Research Associate in Bose Institute, Kolkata

10 Best Research Articles / Publications:

10. Plant Physiology
Hossain et al., Arabidopsis thaliana *ACTIN DEPOLYMERIZING FACTOR 3* gene is required for controlling green peach aphid feeding from sieve elements. Plant Physiol 176: 879–890 (2018).

9. Journal Plant Biology
Hossain Ali Mondal. Shaping the Understanding of Saliva-derived Effectors Towards Aphid Colony Proliferation in Host Plant. J. Plant Biol. (2017) 60:103-115. DOI 10.1007/s12374-016-0465-x

8. Plant cell
Nobuhiro Suzuki, Gad Miller, Carolina Salazar, **Hossain A. Mondal**, Elena Shulaev, Diego F. Cortes, Joel L. Shuman, Xiaozhong Luo, Jyoti Shah, Karen Schlauch, Vladimir Shulaev, and Ron Mittler.Temporal-Spatial Interaction between Reactive Oxygen Species and Abscisic Acid Regulates Rapid Systemic Acclimation in Plants. The Plant Cell, Vol. 25: 3553–3569, September 2013.

7. Plant Physiology
Joe Louis, Enrico Gobbato, **Hossain A. Mondal**, Bart J. Feys, Jane E. Parker and Jyoti Shah. (2012) Discrimination of Arabidopsis PAD4 activities in defense against green peach aphid and pathogens. Plant PhysiolVol. 158, pp. 1860–1872.

6. PloS ONE
Mondal HA, Chakraborti D, Majumder P, Roy P, Roy A, et al. (2011) Allergenicity Assessment of Allium sativum Leaf Agglutinin, a Potential Candidate Protein for Developing Sap Sucking Insect Resistant Food Crops. PLoS ONE 6(11): e27716. doi:10.1371/journal.pone.0027716

5. Plant Cell Reports
Subhadipa Sengupta, Dipankar Chakraborti, **Hossain A. Mondal** and Sampa Das. Selectable antibiotic resistance marker gene-free transgenic rice harbouring the garlic leaf lectin gene exhibits resistance to sap-sucking plant hoppers. Plant Cell Rep. 2010 Mar; 29(3):261-71.

4. Journal of Proteome Research
Anindya Sarkar, Daniel Hess,**Hossain A. Mondal**,Santanu Banerjee, Hari C. Sharma and Sampa Das. Homodimeric alkaline phosphatase located at *Helicoverpaarmigera* midgut, a putative receptor of Cry1Ac contains α-GalNAc in terminal glycan structure as interactive epitope. J. Proteome Res. 2009, 8, 1838-1848.

3. Transgenic Research
D. Chakraborti, A. Sarkar,**H.A. Mondal,** S. Das, Tissue specific expression of Allium sativum leaf agglutinin (ASAL) in important pulse crop chickpea (Cicer arietinum L.) to resist the phloem feeding *Aphis craccivora*, Trans. Res. 18 (2009) 529-544.

2. Plant Cell Reports
D. Chakraborti, A. Sarkar, **H. A. Mondal**, D. Schuermann, Barbara Hohn, B. K. Sarmah and S. Das. Cre/lox system to develop selectable marker free transgenic tobacco plants conferring resistance against sap sucking homopteran insects. Plant Cell Reports, 2008, 27: 1623-1633.

1. Journal of Agricultural and Food Chemistry
Majumder, P., **Mondal, H. A**andDas, S. Monitoring of the insecticidal ability of *Arum maculatum tuber* lectin and its binding to the glycosylated insect gut receptors.*J. Agric. Food Chem.* 2005,53, 6725-6729.

Research Projects:

Approved for Funding of the project entitled as "Molecular Signature Dynamics in Aphid Stylet-probed Vascular Sap and Aphid's Salivary Gland for the Elevated Levels of Resistance in *Brassica* and its Wild sp against *Liphaphiserysimi*" by DST-SERB under CRG Call.

Extramural Projects handled in the previous employer (UBKV, Cooch Behar).

- As Principle Investigator –03 [1 SERB (DST, India), 1 Ministry of Ayurveda (Govt. of India), and 1 DST-B-WB].
- As Co-Principle Investigator- 03 [2 Ministry of Ayurveda (Govt. of India), 1 DST-B-WB].

Achievements / Awards (if any)

- ❖ Early Career Research (E.C.R) Award-2015 (DST, Govt. of India) having Grand Number-ECR/2015/000184.