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**Professional Experience**

**Assistant Professor:** Dept. of Biology, University of Texas Rio Grande Valley, Edinburg, TX, USA. Sep, 2022-present.

**Scientist I,** Dept. of Plant and Soil Sciences, University of Kentucky, USA. Dec, 2018-Aug, 2022.

**Postdoctoral researcher:** Dept. of Plant and Soil Sciences, University of Kentucky, USA. Jan, 2014-Nov, 2018.

**Research Associate II:** Dept. of Horticulture and Crop Sciences, Ohio Agricultural Research and Development Center (OARDC), The Ohio State University, Ohio, USA. Oct, 2013-Jan, 2014.

**Postdoctoral researcher:** Dept. of Horticulture and Crop Sciences, Ohio Agricultural Research and Development Center (OARDC), The Ohio State University, USA. Apr, 2010-Sep, 2013.

**Education**

**PhD:** University of Kentucky, Lexington, USA. Plant Physiology.

**Masters:** Bidhan Chandra Krishi Viswavidyalaya, West Bengal, India. Genetics.

**BS:** Uttar Banga Krishi Viswavidyalaya, West Bengal, India. Agriculture (genetics and plant breeding).

**Research interests**

- Identification of genes and gene regulatory networks involved in the regulation of key developmental processes in crop plants using genetic, molecular, biochemical, and cutting-age genomic approaches.
- Elucidating genetic and molecular bases of responses to abiotic and biotic stresses in crop plants by looking at the transcriptional, post-transcriptional (including alternative splicing and alternative polyadenylation), and epigenetic levels and mitigating such adverse effects of abiotic and biotic stresses using molecular approaches.
- Building genomic resources for non-model crop species.

**Publications**

1. **Manohar Chakrabarti**, Padmaja Nagabhyru, ....., and Randy D. Dinkins. Differential gene expression in tall fescue tissues in response to water deficit. ***The Plant Genome***. 2022. 15:e20199. doi.org/10.1002/tpg2.20199. [**Impact factor: 4.089**, Google scholar citation: 1]
2. Priyanka Paul, ....., **Manohar Chakrabarti**, and Sharyn E. Perry. The regulatory role of the MADS-domain transcription factor AGAMOUS-Like 18 in *Arabidopsis thaliana* somatic embryogenesis. ***Plant Physiology*** 2021. 188(3):1617-1631. doi.org/ 10.1093/plphys/kiab553. [**Impact factor: 8.3**, Google scholar citation: 5]

3. Qiang Li, **Manohar Chakrabarti**, ....., and Esther van der Knaap. Differential expression of SIKLUH controlling fruit and seed weight is associated with changes in lipid metabolism and photosynthesis related genes. *Journal of Experimental Botany*. 2021. 72 (4): 1225-1244. Doi.org/10.1093/jxb/eraa518. [Impact factor: 5.908, Google scholar citation:14]
4. **Manohar Chakrabarti**, Laura de Lorenzo, ....., Arthur G. Hunt. Wide-ranging transcriptome remodeling mediated by alternative polyadenylation in response to abiotic stresses in sorghum. *Plant Journal*. 2020. 102 (5): 916-930. doi.org/10.1111/tpj.14671. [Impact factor:6.141, Google scholar citation:19]
5. Aboozar Soorni, ....., **Manohar Chakrabarti**, Arthur G Hunt, Aureliano Bombarely. Transcriptome landscape variation in the genus *Thymus*. *Genes*. 2019. 10 (8):620. doi.org/10.3390/genes10080620. [Impact factor: 3.3, Google scholar citation: 10]
6. Shan Wu, ....., **Manohar Chakrabarti**, ....., and Esther van der Knaap. A novel mechanism underlies morphological diversity in plants. *Nature Communications*. 2018. 9:4734. doi:10.1038/s41467-018-07216-8. [Impact factor: 12.121, Google scholar citation: 111].
7. **Manohar Chakrabarti**, Randy D. Dinkins, and Arthur G. Hunt. Genome-wide atlas of alternative polyadenylation in the forage legume, red clover (*Trifolium pratense* L.) *Scientific Reports*. 2018. 8(1): 11379. doi.org/10.1038/s41598-018-29699-7. [Impact factor: 3.998, Google scholar citation: 8]
8. Qi Mu, ....., **Manohar Chakrabarti**, ....., and Esther van der Knaap. Fruit weight is controlled by Cell Size Regulator encoding a novel protein that is expressed in maturing tomato fruits. *PLoS Genetics*. 2017.13(8):e1006930. doi.org/10.1371/ journal. pgen. 1006930. [Impact factor: 5.540, Google scholar citation: 104].
9. **Manohar Chakrabarti**, Randy D. Dinkins and Arthur G. Hunt. De novo transcriptome assembly and dynamic spatial gene expression analysis in red clover. *The Plant Genome*. 2016. 9 (2). doi:10.3835/plantgenome2015.06.0048. [Impact factor: 4.260, Google scholar citation: 11].
10. **Manohar Chakrabarti** and Arthur G. Hunt. CPSF30 at the interface of alternative polyadenylation and cellular signaling in plants. *Biomolecules*. 2015. 5 (2): 11511168.doi:10.3390/biom5021151. [Impact factor: 4.57, Google scholar citation: 40].
11. Esther van der Knaap, **Manohar Chakrabarti**, ....., and Shan Wu. What lies beyond the eye: the molecular mechanisms regulating tomato fruit weight and shape. *Frontiers in Plant Science*. 2014. 5:227:79-91. doi: 10.3389/fpls.2014.00227 [Impact factor: 4.407, Google scholar citation: 174].
12. **Manohar Chakrabarti**, Na Zhang, ....., and Esther van der Knaap. A cytochrome P450 regulates a domestication trait in cultivated tomato. *Proceedings of the National Academy of Sciences of the United States of America*. 2013. 110 (42):17125-30. doi: 10.1073/pnas.1307313110. [Highlighted in The Columbus Dispatch newspaper: <http://www.dispatch.com/content/stories/science/2013/11/03/1-big-fruit-little-fruit.html>] [Impact factor: 9.412, Google scholar citation: 238].
13. **Manohar Chakrabarti**, Steven W. Bowen, ..., and Balazs Siminszky. CYP82E4-mediated nicotine to nornicotine conversion in tobacco is regulated by a senescence-specific signaling pathway. *Plant Molecular Biology*. 2008. 66: 415-427. doi: 10.1007/s11103-007-9280-6. (Cover page) [Impact factor: 4.080, Google scholar citation: 42].

14. Balazs Siminszky, Lily B. Gavilano, **Manohar Chakrabarti**, Ralph Dewey, Steven W. Bowen. Evolution of nicotine-N-demethylase genes and their use in reducing nicotine levels in tobacco. *Recent advances in tobacco science*. 2007. 33: 27-38. [Google scholar citation: 1]
15. **Manohar Chakrabarti**, Karen M. Meekins, Lily B. Gavilano and Balazs Siminszky. Inactivation of CYP82E2 by Degenerative Mutations was a Key Event in the Evolution of the Alkaloid Profile of Modern Tobacco. *New Phytologist*. 2007. 175:565-574. doi: 10.1111/j.1469-8137.2007.02116.x. [Impact factor: 8.512, Google scholar citation: 46].
16. **Manohar Chakrabarti**, Bhattacharya N. M. Association of Green Forage Yield Attributes in Rice Bean, *Vigna umbellata* (Thumb.) Ohwi and Ohashi. *Environment & Ecology*. 2005. 23 (3): 538-540. [Google scholar citation: 1].
17. **Manohar Chakrabarti**, Bhattacharya, N. M. Genetic Variability in Rice Bean. *Environment & Ecology*. 2005. 23 (3): 534-537. [Google scholar citation: 0].

### Selected presentations

1. **Manohar Chakrabarti**. Genetic and Molecular basis of phenotypic diversity of fruits in crop plants. 2018. Biological Sciences Division. Indian Statistical Institutes. (Invited talk).
2. **Manohar Chakrabarti**, Laura de Lorenzo, Salah E. Abdel-Ghany, Anireddy S.N. Reddy, and Arthur G. Hunt. A genome-wide alternative polyadenylation atlas of abiotic stress responses in sorghum. Rustbelt RNA meeting 2018. October 26-27, 2018. Columbus, OH, USA.
3. **Manohar Chakrabarti**, Randy D. Dinkins, and Arthur G. Hunt. Genome-wide atlas of alternative polyadenylation in the forage legume red clover. Rustbelt RNA meeting 2017. October 13-14, 2017. Indianapolis, IN, USA.
4. **Manohar Chakrabarti**, Randy D. Dinkins, and Arthur G. Hunt. Genome wide alternative polyadenylation landscape in the forage legume Redclover (*Trifolium pratense* L.). Rustbelt RNA meeting 2015. October 23-24, 2015. Sandusky, OH, USA.
5. **Manohar Chakrabarti**, Randy D. Dinkins, and Arthur G. Hunt. Genome-wide alternative polyadenylation and gene expression studies in forage crops-tall fescue and red clover. Plant and Animal Genome Conference XXIII. January 10-14, 2015. San Diego, CA, USA.
6. **Manohar Chakrabarti**, Randy D. Dinkins, and Arthur G. Hunt. Exploring role of alternative polyadenylation during tall fescue-endophyte symbiosis under drought stress using genome wide approaches. Rustbelt RNA meeting 2014. October 17-18, 2014. Pittsburgh, PA, USA.
7. **Manohar Chakrabarti**, Na Zhang, Christopher Sauvage, Stéphane Muños, Jose Blanca, Joaquin Cañizares, Maria Jose Diez, Rhiannon Schneider, Michael Mazourek, Jammi McClead, Mathilde Causse & Esther van der Knaap. Regulation of a domestication trait in tomato by a cytochrome P450. American Society of Plant Biologists annual conference: Plant Biology 2013, July 20 - July 24, 2013. Providence, Rhode Island, USA.
8. **Manohar Chakrabarti**, Na Zhang, and Esther van der Knaap. Elucidation of the molecular identity and characterization of the tomato fruit weight gene *FW3.2.SOL* & *ICuGI*, 2011. 8<sup>th</sup> Solanaceae and 2<sup>nd</sup> Cucurbitaceae Joint conference. Nov 28- Dec 2, 2011- Kobe, Japan. Oral presentation.

9. **Manohar Chakrabarti**, Lily B. Gavilano, Steven W. Bowen, Ralph E. Dewey and Balazs Siminszky. The roles of nicotine- N- demethylase genes in the evolution of the alkaloid profile of modern tobacco. American Society of Plant Biologists annual conference: Plant Biology 2008, June 26 - July 1, 2008 - Mérida, Mexico.
10. **Manohar Chakrabarti** and N.M. Bhattacharya. A study on Genetic variability in Ricebean. National Conference on Plants, Microbes and Environment: Issues and Challenges. March 20-21, 2004. Department of Botany, University of Burdwan, West Bengal, India.