

Thu Minh Tran

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EDUCATION

2018 University of Missouri **Columbia, MO, USA**
PhD in Plant, Insect and Microbial Sciences
Specific area: Plant Breeding, Genetics and Genomics
Advisor: Dr. David Braun

RESEARCH EXPERIENCE

9/2019 to now Postdoctoral researcher
Mentor: Dr. Dave Jackson
Cold Spring Harbor laboratory, NY, USA
Studying meristem development in maize.

1/2019 to 9/2019 Postdoctoral researcher
Mentor: Dr. Jung-Youn Lee
Delaware Biotechnology Institute, University of Delaware, DE, USA
Studied cell communication and signaling in *Arabidopsis*.

2014 to 2018 PhD candidate, Research Assistant
Advisor: Dr. David Braun
Division of Biological Sciences, Division of Plant Sciences, University of Missouri - Columbia
Dissertation title: “*Utilizing radiotracer and genetic approaches to determine the regulation of sucrose export in maize leaves*”
Studied genetic control of carbohydrate partitioning in maize.

- Identified and characterized several *carbohydrate partitioning defective* mutants.
- Developed new radioactive tracers to study phloem transport in maize.
- Utilized radioactive tracers and imaging technologies to study phloem loading.
- Mentored and trained three undergraduate research assistants.

PUBLICATIONS

Sager, R., Wang, X., Hill, K., Yoo, B.C., Caplan, J., Nedo, A., **Tran, T.**, Bennett, M.J. and Lee, J.Y., (2020) Auxin-dependent control of a plasmodesmal regulator creates a negative feedback loop modulating lateral root emergence. *Nature Communications*, 11(1), pp.1-10

Tran, T.M., McCubbin, T.J., Bihmidine, S., Julius, B.T., Baker, R.F., Schauflinger, M., Weil, C., Springer, N., Chomet, P., Wagner, R., Woessner, J., Grote, K., Peevers, J., Slewinski, T. L., Braun, D.M. (2019) Maize *Carbohydrate partitioning defective33* Encodes an MCTP protein and functions in sucrose export from leaves. *Molecular plant*.

Huang, J., Lu, G., Liu, L., Raihan, M.S., Xu, J., Jian, L., Zhao, L., **Tran, T.M.**, Zhang, Q., Liu, J. and Li, W., (2019) qKW9 encodes a pentatricopeptide repeat protein affecting photosynthesis and grain filling in maize. *bioRxiv*, p.847145.

Matthes, M. S., Robil, J. M., **Tran, T.**, Kimble, A., McSteen, P. (2018) Increased transpiration is correlated with reduced boron deficiency symptoms in the maize tassel-less1 mutant. *Physiologia Plantarum*. doi: 10.1111/ppl.12717

Tran, T. M., Hampton, C. S., Brossard, T. W., Harmata, M., Robertson, J. D., Jurisson, S. S. and Braun, D. M. (2017). In vivo transport of three radioactive [¹⁸F]-fluorinated deoxysucrose analogs by the maize sucrose transporter ZmSUT1. *Plant Physiology and Biochemistry*, 115, pp.1-11. doi:10.1016/j.plaphy.2017.03.006.

Tran, T. M., & Braun, D. M. (2017). An inexpensive, easy-to-use, and highly customizable growth chamber optimized for growing large plants. *Current Protocols in Plant Biology*, pp. 2, 299–317. doi: 10.1002/cppb.20059.

Leach, K. A., **Tran, T. M.**, Slewinski, T. L., Meeley, R. B. and Braun, D. M. (2017). Sucrose transporter2 contributes to maize growth, development, and crop yield. *Journal of Integrative Plant Biology*, 59, pp.390-408. doi: 10.1111/jipb.12527.

Xu, J., **Tran, T.**, Marcia, C. S. P., Braun, D., and Goggin, F. L. (2017). Superoxide-responsive gene expression in *Arabidopsis thaliana* and *Zea mays*. *Plant Physiology and Biochemistry*, 117, pp. 51-60. doi: /10.1016/j.plaphy.2017.05.018.

Julius, B. T., Leach, K. A., **Tran, T.M.**, Mertz, R. A., Braun, D. M. (2017). Sugar Transporters in Plants: New Insights and Discoveries. *Plant and Cell Physiology*, 58, pp. 1442–1460. doi: 10.1093/pcp/pcx090.

Presentations (selected)

The Interdisciplinary Plant Group (IPG) seminar/defense, University of Missouri, Columbia, MO, October 2018. “Utilizing radiotracer and genetic approaches to determine the regulation of sucrose export in maize leaves”.

Short talk, 60th Annual Maize Genetics Conference, Saint-Malo, France, March 2018.
“*Carbohydrate partitioning defective33* functions in sucrose export from leaves”.

Short talk, American Society of Plant Biologists (ASPB) Regional Meeting, Ames, IA, USA, March 2018. “*Carbohydrate partitioning defective33* functions in sucrose export from leaves”.

GRANTS/ AWARDS

Vietnam International Education Development (VIED) Fellowship for abroad graduate study

2019-Electron Microscopy Excellence Award from Electron Microscopy Core Facility – University of Missouri-Columbia, project titled “Utilizing electron microscopy (EM) to study the subcellular localization and functions of *Carbohydrate partitioning defective33* in maize”

2018-Graduate Professional Council Travel Grant– University of Missouri-Columbia

2018-Randall Young Scientist Development Grant– University of Missouri-Columbia

2018-Division of Plant Sciences Travel Grant– University of Missouri-Columbia

2018-Interdisciplinary Plant Group Travel Grant– University of Missouri-Columbia