CURRICULUM VITAE

1. MAILING ADDRESS

Dr. Lam-Son Phan Tran, **Professor**
Texas Tech University
Department of Plant and Soil Science
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2. EDUCATION

- 1994-1997: Godollo University of Agricultural Sciences, Hungary (currently, Szent Istvan campus of Hungarian University of Agriculture and Life Sciences, Hungary)
  - Qualification: **Doctor of Philosophy**
    Ph.D. program: *Biological Bases of Agricultural Biotechnology*.
- 1988-1994: Godollo University of Agricultural Sciences, Hungary
  Qualification: **Master of Agricultural Sciences** (specialized in *Biotechnology*)
- 1991-1992: Courses in International Trade organized in Godollo University of Agricultural Sciences, Hungary
  Qualification: **Certificate in International Trade**
- 1987-1988: International Preparatory Institute, Hungary: 1987-1988
  Qualification: Hungarian Language Training Course
- 1986-1987: Hanoi Languages University, Vietnam
  Qualification: Hungarian Language Training Course

3. PROFESSIONAL CAREER

- 09/2020-current: Professor, Texas Tech University, Department of Plant and Soil Science, Institute for Genomics of Crop Abiotic Stress Tolerance (IGCAST), USA
- 04/2021-current: Senior Visiting Scientist, RIKEN, Japan
- 05/2019-05/2022: Visiting Scientist, Duy Tan University, Vietnam
- 10/2015-12/2020: Visiting Scientist, Ton Duc Thang University, Vietnam
- 03/2012-12/2020: Visiting Professor of Vietnam Academy of Agricultural Science
- 01/01/2009-31/08/2020: Unit Leader, Stress Adaptation Research Unit (former Signaling Pathway Research Unit), RIKEN Center for Sustainable Resource Science (former RIKEN Plant Science Center), Yokohama, Japan.
- 06/08/2007-31/12/2008: Senior Research Scientist, Soybean Genomics and Biotechnology Laboratory, Division of Plant Science, National Center for Soybean Biotechnology, University of Missouri-Columbia, MO, 65211, USA.
- 01/10/2003-31/07/2007: Special Researcher, Biological Resources Division, Japan International Research Center for Agricultural Sciences (JIRCAS), Japan.
- 10/10/2001-30/09/2003: JIRCAS fellow, Biological Resources Division, Japan International Research Center for Agricultural Sciences (JIRCAS), Japan.

- 01/03/2001-05/10/2001: JSPS postdoctoral fellow, Department of Microbial Cell Biology, Graduate School of Biological Science, Nara Institute of Science and Technology, Japan.
- 01/12/1998-30/11/2000: STA postdoctoral fellow, Applied Bacteriology Laboratory, Division of Microbiology, National Food Research Institute, Tsukuba, Japan.
- 01/07/1998-30/11/1998: Senior Researcher, Phylaxia company in conjunction with Department of Biotechnology and Molecular Genetics of Szent Istvan University, Hungary.
- 01/09/1997-30/06/1998: Researcher, Molecular Genetics Group, Hungarian Academy of Sciences, Department of Biotechnology and Molecular Genetics, Szent Istvan University, Hungary.
- 1994-1997: Ph.D. student, Teaching Assistant, Department of Biotechnology and Molecular Genetics, Szent Istvan University, Hungary.
- 1992-1994: Teaching Assistant and Demonstrator, Department of Biotechnology and Molecular Genetics, Szent Istvan University, Hungary.
- 1990-1992: part-time technician, Department of Biotechnology and Molecular Genetics, Szent Istvan University, Hungary.

4. TEACHING AND SUPERVISING EXPERIENCE

Teaching

- 09/2020-current: Professor, Texas Tech University, Department of Plant and Soil Science, Institute for Genomics of Crop Abiotic Stress Tolerance (IGCAST), USA
- 03/2012-12/2020: Visiting Professor of Vietnamese Academy of Agricultural Sciences
- 1992-1994: Teaching Assistant and Demonstrator in Department of Biotechnology and Molecular Genetics, Szent Istvan University, Hungary.

Supervising

- 01/2009-current: supervised/co-supervised 8 graduate students, supervised 7 postdoctoral researchers, and hosted more than 20 M.Sc and Ph.D students and visiting scholars from different countries for short-term visits.
- 2007-2008: participated in advising Ph.D students of Molecular Genetics and Soybean Genomics Laboratory, University of Missouri-Columbia, USA.
- 2006-2007: participated in advising M.Sc and Ph.D students of Biological Resources Division, JIRCAS-Laboratory of Plant Molecular Physiology, University of Tokyo, Japan.
- 1994-1997: participated in advising M.Sc and Ph.D students of Department of Biotechnology and Molecular Genetics, Szent Istvan University, Hungary.

5. CURRENT RESEARCH OF INTERESTS

- Functions of signaling molecules (e.g., acetate, ethanol, Ca, hormones, NO, H_2S, Ca, etc.), and their crosstalk in plant responses to abiotic stresses (e.g., drought, salinity heavy metal stresses, and pathogens).
- Signaling regulatory network controlling plant growth, productivity and responses to environmental stresses.
- Functional genomics of legume crops for improvement of productivity under adverse conditions.
- Discovery of novel genes for improvement of abiotic stress tolerance of crops (chickpea, common bean, cotton, maize, rice, soybean, and sorghum).
- Isolation and characterization of plant growth-promoting microorganisms that can confer abiotic tolerance and biotic resistance to various crops.
- Large-scale data mining of plant genomic sequences for functional and comparative genomics.

6. PROFESSIONAL DUTIES

Handling editor

- Editor of Plant Nano Biology (from 03/2022~)
- Associate Editor of AoB PLANTS (from 11/2020~)
- Associate Editor of Plant-Environment Interactions (from 7/2019~)
- Editor of Scientific Reports (from 10/2014~)
- Associate Editor of Plant Molecular Biology Reporter (from 04/2014~)
- Associate Editor of BMC Plant Biology (from 10/2013~)
- Associate Editor of BMC Genomics (from 09/2013~)
- Editor of International Journal of Molecular Sciences (from 05/2013~)
- Associate Editor of Frontiers in Plant Science (from 07/2016~)
- Academic Editor of BioMed Research International (former Journal of Biomedicine and Biotechnology) (from 10/2012~)
- Academic Editor of PloS One (from 02/2012~)
- Associate Editor of Critical Reviews in Biotechnology (04/2020-09/2021)

Board members

- Member of Editorial Board of Oil Crop Science (from 01/2023~)
- Member of Editorial Board of Plant Communications (from 01/2020~)
- Member of Editorial Board of Current Protein & Peptide Science (from 02/2019~)
- Member of the Bio2 (Functional Biology) Fellowship panel at the Research Foundation Flanders (01/2019-12/2019)
- Member of Editorial Board of Plant & Cell Physiology (from 01/2016~)
- Member of Editorial Board of Plant Science (04/2014-12/2016)
- Member of Editorial Board of Critical Reviews in Biotechnology (from 04/2012-03/2020)
- Member of Editorial Board of Biotechnology Advances (from 03/2012~)

Ad hoc reviewer

- **For journals**: Agricultural Water Management; Agronomy; Annals of Botany; Australian Journal of Botany; BMC Genomics; BMC Plant Biology; Bioinformatics; Critical Reviews in Biotechnology; DNA Research; Environmental and Experimental Botany; Environmental Pollution; Environmental Science: Nano; Environmental Science & Technology; FEBS Letters; Frontiers in Plant Science; Functional & Integrative Genomics; Genetics and Molecular Biology; GM Crops & Food: Biotechnology in Agriculture and the Food Chain; Genome Biology; Journal of Agronomy and Crop Science; Journal of Chromatography A; Journal of Experimental Botany; Journal of Hazardous Materials; Journal of Plant Growth Regulation; Journal of Plant Physiology; Journal of Plant Research; Land Degradation & Development; Molecular Biology Reports; Molecular Genetics and Genomics; Molecular Plants, Molecular Plant-Microbe Interactions; Mycorrhiza; Nature Communications; New Phytologist; Pedosphere; Photosynthetica; Physiological and Molecular Plant Pathology; Physiologia Plantarum; Phytochemistry; Planta; Plant Biotechnology Journal; Plant Cell; Plant, Cell & Environment; Plant & Cell Physiology; Plant Cell Reports; Plant Cell, Tissue and Organ Culture; Plant Communications; Plant Genome; Plant Journal; Plant Molecular Biology; Plant Molecular Biology Reporter; Plant Physiology; Plant Physiology and Biochemistry; Plant Science; Plant Signaling & Behavior; PloS Genetics; PloS One; Proceedings of the National Academy of Sciences; Renewable &

Sustainable Energy; Rice; Science of the Total Environment; Scientific Reports; Symbiosis; Theoretical and Applied Genetics; Tree Genetics & Genomes; Trends in Plant Science.

- **For funding agencies**: National Science Foundation-USA, United State-Israel Binational Science Foundation, the United States-Israel Binational Agricultural Research & Development Fund (BARD), French National Research Agency, ERA-CAPS-German Research Foundation, Academy of Sciences of the Czech Republic, National Science Centre of Poland, International Foundation for Science, Biotechnology Panel of Israeli Ministry of Agriculture and Rural Development, AgreenSkills programme (INRA-France), Research Foundation Flanders (Belgium), National Center of Science and Technology Evaluation (Kazakhstan), Millenium Science Initiative (Chile).

7. RESEARCH GRANTS & FUNDING

A total of ~$US500,000 has been secured as PI or co-PI since joining Texas Tech University from 09/01/2020.

NAME (List/PD #1 first)	SUPPORTING AGENCY AND AGENCY ACTIVE AWARD/PENDING PROPOSAL NUMBER	TOTAL $ AMOUNT	EFFECTIVE AND EXPIRATION DATES	% OF TIME COMMITTED	TITLE OF PROJECT
PD: **Lam-Son Phan Tran** Co-PDs: Luis Herrera-Estrella, Damar Lopez-Arredondo, Chien Ha	USDA-AFRI (**Pending**)	$300,000	03/01/2024 to 02/28/2027	5%	Generating high carbon assimilation and drought-tolerant cotton by exploring transgenerational memory effect of acetic acid application
PD: **Lam-Son Phan Tran** Co-PDs: Madhusudana Janga, Mostofa Mohammed	USDA-AFRI (**Pending**)	$650,000	03/01/2024 to 02/29/2028	8%	Silicon-mediated enhancement of heat tolerance in cotton
PD: Damar Lopez-Arredondo Co-PDs: Luis Herrera-Estrella, **Lam-Son Phan Tran**	USDA-AFRI (**Pending**)	$650,000	01/01/2024 to 12/31/2026	3%	Harnessing microalgae diversity to discover novel bioherbicides and nematicides with new modes of action for sustainable agriculture
PD: Gunvant Patil co-PD: **Lam-Son Phan Tran**	USDA-AFRI (**Pending**)	$492,218	03/01/2024 to 02/28/2028	3%	Frost-proof soybeans: Enhancing cold tolerance through optimized nutrient uptake and beneficial microorganisms at germination and post-germination stages
PD: Henry Nguyen, Co-PD: **Lam-Son Phan Tran**	USDA-AFRI (**Pending**)	$500,000	04/01/2024 to 03/31/2027	3%	Understanding and improvement of soybean tolerance to individual and combined cold and waterlogging stresses at early growth stage
PD: Henry Nguyen, Co-PDs: **Lam-Son Phan Tran,** Yinping Jiao	USDA-AFRI (**Pending**)	$850,000	03/01/2024 to 02/28/2027	3%	Decoding the potential of sorghum root systems and microbiome: Strategies for resilience and nitrogen-use-efficiency in hot and arid land
PD: **Lam-Son Phan Tran**	Multi-Regional Soybean Checkoff_Mid-South Regional project (**Pending**)	$70,000	01/01/2024 to 09/30/2024	3%	Toward microbial syncom-dryland farming: Improving agricultural practices through microbiome-induced soybean resilience under hot and arid field conditions
PD: Henry Nguyen, Co-PDs: **Lam-Son Phan Tran,** Gunvant Patil, Vasit Sagan, C. Nathan Hancock, Kendall R. Kirk	Multi-Regional Soybean Checkoff-National Project (**Pending**)	$450,000	01/01/2024 to 09/30/2024	3%	Genetic and physiological mechanisms underlying soybean resilience to drought and hot climate
PI: **Lam-Son Phan Tran** Co-PI: Chien Van Ha	The Texas State Support Committee (22-484TX) and Cotton Incorporated (22-618) (**Current**)	$25,650	01/01/2024 – 12/31/2024	3%	Improvement of cotton growth and yield performance under drought stress with the employment of zinc oxide nanoparticles (Continuation for **3rd year**)

PI: **Lam-Son Phan Tran** Co-PI: Aarti Gupta	The Texas State Support Committee (24-921TX) (**Current**)	$20,000	01/01/2024 – 12/31/2024	3%	Roles of plant growth-promoting bacteria in improving cotton growth and yield performance under high salinity (**1st year**)
PI: Chien Van Ha Co-PI: **Lam-Son Phan Tran**, Noureddine Abidi	The Texas State Support Committee (24-909TX) (**Current**)	$25,000	01/01/2024 – 12/31/2024	3%	Enhancement of drought tolerance and reduction of fiber detachment force of cotton using co-application of acetic acid and ethanol (**1st year**)
PI: Damar Lopez-Arredondo Co-PIs: Luis Herrera-Estrella, **Lam-Son Phan Tran**	United Soybean Board (Project #2314-209-0501) (**Current**)	$131,956	10/01/2023-09/30/2024	2% (20% allocation of credit)	Genetic improvement of soybean to boost weed control and phosphorus nutrition (Continuation for **2nd year**)
PI: Mayank Gururani Co-PI: **Lam-Son Phan Tran**	United Arab Emirates University (UAEU Program for Advanced Research, ID: 700027433) (**Current**)	$95,000	04/01/2023-03/31/2025	5%	Study on the mechanism of brassinosteroids regulating symbiotic nodulation in soybean
PI: Luis Herrera-Estrella Co-PIs: **Lam-Son Phan Tran,** Damar Lopez-Arredondo, Gunvant Patil, Yinping Jiao	United Sorghum Checkoff Program (A23-0146) (**Current**)	$1,000,000	01/01/2023-12/31/2027	3% (15% allocation of credit)	An integrated research program to accelerate sorghum breeding and management for improving weed control, abiotic stress tolerance and grain quality
PI: **Lam-Son Phan Tran** Co-PI: Mohamad Golam Mostofa	The Texas State Support Committee (22-484TX) and Cotton Incorporated (22-618) (**Current**)	$25,650	01/01/2023 – 12/31/2023	3%	Improvement of cotton growth and yield performance under drought stress with the employment zinc oxide nanoparticles **(**Continuation for **2nd year**)
PI: Damar Lopez-Arredondo Co-PIs: Luis Herrera-Estrella, **Lam-Son Phan Tran**	United Soybean Board (Project #2314-209-0501) (**Finished**)	$108,979	10/01/2022-09/30/2023	2% (20% allocation of credit)	Genetic improvement of soybean to boost weed control and phosphorus nutrition
PI: **Lam-Son Phan Tran** Co-PI: Mohamad Golam Mostofa	United Soybean Board (Project #2313-209-0101) (**Finished**)	$112,474	10/01/2022-09/30/2023	5%	Combining chemical and genetic strategies for improvement of growth and yield potential in soybean under drought stress (continuation for **2nd year**, project #2220-172-0148)
PI: **Lam-Son Phan Tran** Co-PI: Mohamad Golam Mostofa	United Soybean Board (Project #2220-172-0148) (**Finished**)	$99,656	10/2021 – 03/2023	5%	Combining chemical and genetic strategies for improvement of growth and yield potential in soybean under drought stress (**1st year**)
PI: **Lam-Son Phan Tran** Co-PIs: Mendu Venugopal, Dampanaboina Lavanya	BASF-TTU Project Revolution (**Finished**)	$138,818	11/2021 – 03/2023	5%	Genome editing to improve photosynthetic efficiency and biomass yield in soybean
PI: **Lam-Son Phan Tran** Co-PI: Mohamad Golam Mostofa	The Texas State Support Committee (22-484TX) and Cotton Incorporated (22-618) (**Finished**)	$23,650	1/2022 – 12/2022	3%	Improvement of cotton growth and yield performance under drought stress with the employment of zinc oxide nanoparticles (**1st year**)

8. AWARDS AND HONOURS

- Highly Cited Researcher 2023 (Thomson Reuters/Clarivate Analytics)
- The Texas Tech Parents Association's Barney E. Rushing, Jr., Faculty Distinguished Research Award – STEM, 2023
- Elected Fellow of *The National Academy of Sciences, India* (effective 01-January-2023)
- Highly Cited Researcher 2022 (Thomson Reuters/Clarivate Analytics)
- Letter of Appreciation from the President of RIKEN for receiving Highly Cited Researcher 2022
- Highly Cited Researcher 2021 (Thomson Reuters/Clarivate Analytics)

- Letter of Appreciation from the President of RIKEN for receiving Highly Cited Researcher 2021
- Highly Cited Researcher 2020 (Thomson Reuters/Clarivate Analytics)
- Letter of Appreciation from the President of RIKEN for receiving Highly Cited Researcher 2020
- Visiting Scientists Award from the Chinese Academy of Sciences for 2021
- Stanford University's lists of 2% scientists (both "career-long citation impact" and "citation impact during the single calendar year 2019") (PLoS Biology 18:e300098; https://doi.org/10.1371/journal.pbio.3000918)
- Elected Fellow of *The World Academy of Sciences (TWAS) for the advancement of science in developing countries* (effective 01-January-2020)
- Letter of Appreciation from the President of RIKEN for receiving Highly Cited Researcher 2019
- Highly Cited Researcher 2019 (Thomson Reuters/Clarivate Analytics)
- Letter of Appreciation from the President of RIKEN for receiving Highly Cited Researcher 2018
- Highly Cited Researcher 2018 (Thomson Reuters/Clarivate Analytics)
- Letter of Appreciation from the President of RIKEN for receiving Highly Cited Researcher 2016
- Highly Cited Researcher 2016 (Thomson Reuters/Clarivate Analytics)
- 10/2001-09/2003: JIRCAS Visiting Research Fellowship.
- 03/2001-09/2001: Postdoctoral fellowship from Japan Society for the Promotion of Science.
- 11/1998-11/2000: Postdoctoral fellowship from Science and Technology Agency, Japan.
- 09/1994-08/1997: Ph.D. scholarship from the Szent Istvan University and Ministry of Training and Education, Hungary.
- 04/1993: Honour Prize from the Hungarian Ministry of Environmental Protection on National Scientific Congress of University Students, Biotechnology Section, Szombathely, Hungary.
- 04/1993: Second Prize on National Scientific Congress of University Students, Biotechnology Section, Szombathely, Hungary.
- 12/1992: First Prize on Scientific Conference of Szent Istvan University's Students, Biotechnology Section, Godollo, Hungary.
- 08/1987-08/1994: Scholarship for Outstanding Achievement on University Admission Examination, awarded by the Vietnamese Government for B.Sc-M.Sc studies in Hungary.

PUBLICATIONS

I. Patents

Ha CV, **Tran LP**, Herrera-Estrella L, Christian M (2022). U.S. Provisional Pat. App. No. 63/388,878 (filed on 07/13/ 2022, 25%/each)

II. Research papers (*corresponding author)

2023

1. Rahman MM, Das AK, Sultana S, Ghosh PK, Islam MR, Keya SS, Ahmed M, Nihad SAI, Khan MAR, Lovell MC, Rahman MA, Ahsan SM, Anik TR, Fnu P, ***Tran LP**, Mostofa MG (2023). Biochar potentially enhances maize tolerance to arsenic toxicity by improving physiological and biochemical responses to excessive arsenate. **Biochar 5**:71.
2. Khan MAR, Mahmud A, Ghosh UK, Hossain MS, Siddiqui MN, Islam AKMA, Anik TR, Rahman MM, Sharma A, Abdelrahman M, Ha CV, Mostofa MG, ***Tran LP** (2023). Exploring the phenotypic and genetic variabilities in yield and yield-related traits of the diallel-crossed F_5 population of Aus rice. **Plants 12**:3601.
3. Tian Y, Liu Y, Uwaremwe C, Zhao X, Yue L, Zhou Q, Wang Y, **Tran LP**, Li W, Chen G, Sha Y, Wang R (2023). Characterization of three new plant growth-promoting microbes and effects of the interkingdom interactions on plant growth and disease prevention. **Plant Cell Rep 42:**1757-76.
4. Liu H, Liu S, Wang F, Liu Y, Liu Y, Sun J, McConkey KR, **Tran LP**, Dong Y, Yu L, Wang Q (2023). Identifying ecological compensation areas for ecosystem services degradation on the Qinghai-Tibet Plateau. **J Clean Prod 423:**138626.
5. Wang F, Liu S, Liu H, Zhao Y, Dong Y, **Tran LP**, Li W (2023). Resilience assessment of the nitrogen flow system in food production and consumption for sustainable development on the Qinghai-Tibet Plateau. **Sci Total Environ 896**:165223
6. Yin X, Xiang Y, Huang F-Q, Chen Y, Ding H, Du J, Chen X, Wang X, Wei X, Cai Y-Y, Guo D, Alolga RN, Kan X, Zhang B, Alejo-Jacuinde G, Li P, ***Tran LP**, Herrera-Estrella L, Lu X, Qi L-W (2020). Comparative genomics of the medicinal plants *Lonicera acranthoides* and *L. japonica* provides insight into genus genome evolution and hederagenin-based saponin biosynthesis. **Plant Biotech J 21**:2209-23.
7. Somaddar U, Mia S, Khalil MI, Sarker UK, Uddin MR, Kaysar MS, Chaki AK, Robin AHK, Hashem A, Abd_Allah EF, Ha CV, Gupta A, Park J-I, ***Tran LP**, Gopal Saha. Effect of reproductive stage-waterlogging on the growth and yield of upland cotton (*Gossypium hirsutum*). **Plants 12**:1548.
8. Anik TR, Mostofa MG, Rahman MM, Khan MAR, Ghosh PK, Sultana S, Das AK, Hossain MS, Keya SS, Rahman MA, Jahan N, ***Tran LP** (2023). Zn supplementation mitigates drought effects on cotton by improving photosynthetic performance and antioxidant defense mechanisms. **Antioxidants 12**:854.
9. Nguyen HM, Ha CV, Le VP, Bui HT, Wirschell M, Keya SS, Li W, Li M, Pham NT, Do AM, Le MQ, Anik TR, ***Tran LP** (2023). Improvement of photosynthetic performance by acetic acid to enhance drought tolerance in common bean (*Phaseolus vulgaris*). **J Plant Growth Regul 42**:7116-28.
10. Keya SS, Mostofa MG, Rahman MM, Das AK, Sultana S, Ghosh PK, Anik TR, Ahsan SM, Rahman MA, Jahan N, ***Tran LP** (2023). Salicylic acid application improves

photosynthetic performance and biochemical responses to mitigate saline stress in cotton. **J Plant Growth Regul 42**:5881-94.

11. Zahedi SM, Hosseini MS, Karimi M, Gholami R, Amini M, Abdelrahman M, ***Tran LP** (2023). Chitosan-based Schiff base-metal (Fe, Cu, and Zn) complexes mitigate the negative consequences of drought stress on pomegranate fruits. **Plant Physiol Biochem 196**:952-64.

12. Younes NA, Anik TR, Rahman MM, Wardany AA, Dawood MFA, ***Tran LP**, Abdel Latef A, Mostofa MG (2023). Effects of microbial biostimulants (*Trichoderma album* and *Bacillus megaterium*) on growth, quality attributes, and yield of onion under field conditions. **Heliyon 9**:e14203.

13. Yi F, Song A, Cheng K, Liu J, Wang C, Shao L, Wu S, Wang P, Zhu J, Liang Z, Chang Y, Chu Z, Cai C, Zhang X, Wang P, Chen A, Xu J, Burritt DJ, Herrera-Estrella L, ***Tran LP**, Li W, Cai Y (2023). Strigolactones positively regulate Verticillium wilt resistance in cotton via crosstalk with other hormones. **Plant Physiol 192**:945-66.

14. Li L., Li L, Cui S, Qian D, Lyu S, Liu W, Botella JR, Li H, Burritt DJ, **Tran LP**, Li W, Zhang Y (2023). *PDC1* is activated by ABF4 and inhibits seed germination by promoting ROS accumulation in *Arabidopsis.* **Environ Exp Bot 266**:105188.

15. Wang F, Liu S, Liu H, Liu Y, Lu Y, Wang Q, Dong Y, Sun J, **Tran LP**, Li W (2023). Aggravation of nitrogen losses driven by agriculture and livestock husbandry development on the Qinghai-Tibet Plateau. **J Environ Manage 326**:116795.

2022

16. Van Ha C, Mostofa MG, Nguyen KH, Tran CD, Watanabe Y, Li W, Osakabe Y, Sato M, Toyooka K, Tanaka M, Seki M, Burritt DJ, Anderson C, Zhang R, Nguyen HM, Le VP, Bui HT, Mochida K, ***Tran LP** (2022). The histidine phosphotransfer AHP4 plays a negative role in *Arabidopsis* plant response to drought. **Plant J 111**:1732-52.

17. Mostofa MG, Abdelrahman M, Rahman MM, Tran CD, Nguyen KH, Watanabe Y, Itouga M, Li W, Wang Z, Mochida K, ***Tran LP** (2022). Karrikin receptor KAI2 coordinates salt tolerance mechanisms in *Arabidopsis thaliana*. **Plant Cell Physiol 63**:1927-42.

18. Abdelrahman M, Mostofa MG, Tran CD, El-Sayed M, Li W, Sulieman S, Tanaka M, Seki M, ***Tran LP** (2022). The karrikin receptor KARRIKIN INSENSITIVE2 positively regulates heat stress tolerance in *Arabidopsis thaliana*. **Plant Cell Physiol 63**:1914-26.

19. Nasr Esfahani M, Kusano M, Abdelrahman M, Nguyen KH, Watanabe Y, Mochida K, Burritt DJ, ***Tran LP** (2022). Differential metabolic rearrangements in the roots and leaves of *Cicer arietinum* caused by single or double nitrate and/or phosphate deficiencies. **Plant J 111**:1643-59.

20. Tian H, Watanabe Y, Nguyen KH, Tran CD, Abdelrahman M, Liang X, Kun X, Sepulveda C, Mostofa MG, Ha CV, Nelson DC, Mochida K, Tian C, Tanaka M, Seki M, Miao Y, ***Tran LP**, Li W (2022). KARRIKIN UPREGULATED F-BOX 1 negatively regulates drought tolerance in *Arabidopsis*. **Plant Physiol 190**:2671-87. (commented at https://doi.org/10.1093/plphys/kiac413).

21. Hossain MS, Abdelrahman M, Tran CD, Nguyen KH, Chu HD, Watanabe Y, Fujita M, ***Tran LP** (2022). Modulation of osmoprotection and antioxidant defense by exogenously applied acetate enhances cadmium stress tolerance in lentil seedlings. **Environ Pollut 308**:119687.

22. Wang F, Liu S, Liu H, Liu Y, Lu Y, Wang Q, Dong Y, **Tran LP**, Sun J, Zhao W (2022). Scenarios and sustainability of the economy–nitrogen–resource–environment system using a system dynamic model on the Qinghai-Tibet Plateau. **J Environ Manage 318**:115623.

23. Yu L, Liu S, Wang F, Liu Y, Liu H, Wang Q, **Tran LP**, Dong Y, Li W (2022). Strategies for agricultural production management based on land, water and carbon footprints on the Qinghai-Tibet Plateau. **J Clean Prod 362**:132563.

24. Feng Z, Liang X, Tian H, Jia J, Watanabe Y, Nguyen KH, Tran CD, Abdelrahman M, Xu, K, Mostofa MG, Ha CV, Mochida K, Tian C, Tanaka M, Seki M, Liang Z, Miao Y, ***Tran LP**, Li W (2022). SUPPRESSOR of MAX2 1 (SMAX1) and SMAX1-LIKE2 (SMXL2) negatively regulate drought resistance in *Arabidopsis thaliana*. **Plant Cell Physiol 63**:1900-13.

25. Yang Y, Fang X, Chen M, Wang L, Xia J, Wang Z, Fang J, **Tran LP**, Shangguan L (2022) Copper stress in grapevine: Consequences, responses, and a novel mitigation strategy using 5-aminolevulinic acid. **Environ Pollut 307**:119561.

26. Wang Q, Liu S, Wang F, Liu H, Liu Y, Lu Y, Sun J, **Tran LP**, Dong Y (2022). Quantifying carbon sequestration service flow associated with human activities based on network model on the Qinghai-Tibet Plateau. **Front Environ Sci 10**:900908 |

27. Keya SS, Mostofa MG, Rahman MM, Das AK, Rahman MA, Anik TR, Islam MR, Sultana S, Khan MAR, Islam MR, Watanabe Y, Mochida K, ***Tran LP** (2022). Effects of glutathione on waterlogging-induced damage in sesame crop. **Ind Crops Prod 185**:115092.

28. Li W, Sun Y, Li K, Tian H, Jia J, Zhang H, Wang Y, Wang H, Bi B, Guo J, **Tran LP**, Miao Y (2022). Sinapate esters mediate UV-B-induced stomatal closure by regulating nitric oxide, hydrogen peroxide, and malate accumulation in *Arabidopsis thaliana*. **Plant Cell Physiol 63**:1890-9.

29. Rahman MM, Mostofa MG, Das AK, Anik TR, Keya SS, Ahsan SM, Khan MAR, Ahmed M, Rahman MA, Hossain MM, ***Tran LP** (2022). Ethanol positively modulates photosynthetic traits, antioxidant defense and osmoprotectant levels to enhance drought acclimatization in soybean. **Antioxidants 11**:516.

30. La HV, Chu HD, Tran CD, Nguyen KH, Le QTN, Hoang CM, Cao BP, Phan ATC, Nguyen BD, Nguyen TQ, Nguyen LV, Ha CV, Le HT, Le HH, Le TD, ***Tran LP** (2022). Insights into the gene and protein structures of the *CaSWEET* family members in chickpea (*Cicer arietinum*), and their gene expression patterns in different organs under various stress and abscisic acid treatments. **Gene 819**:146210.

31. Das AK, Anik TR, Rahman MM, Keya SS, Islam MR, Rahman MA, Sultana S, Ghosh PK, Khan S, Ahamed T, Ghosh TK, **Tran LP**, Mostofa MG (2022). Ethanol treatment enhances physiological and biochemical responses to mitigate saline toxicity in soybean. **Plants 11**:272.

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III. Reviews, Addenda, Book Chapters, Book & Special Issue Editions

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