

CURRICULUM VITAE

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Plant Genetics and Breeding

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EDUCATION

- **2008 - 2012** **B.Sc. Plant Genetics and Breeding**
Bu Ali Sina University, Hamedan, Iran.
- **2012 - 2015** **M.Sc. Plant Genetics and Breeding**
Tarbiat Modares University (TMU), Tehran, Iran.
- **2015 - 2020** **Ph.D. Plant Genetics and Breeding**
Tarbiat Modares University (TMU), Tehran, Iran.

HONORS AND AWARDS

- Selected by Iran's National Elites Foundation.
- The First rank student in M.Sc. Tarbiat Modares University (TMU), Tehran, Iran.
- The Third rank in Ph.D. "Iran Universities Ph.D. Entrance Examination" Administered by the National Education Measurement Organization, Ministry of Science Research and Technology of Iran, February 2015.

PUBLICATIONS AND PERESENTATIONS

1. Safaie, N., Salehi, M., **Farhadi, S.**, Aligholizadeh, A. and Mahdizadeh, V. (2024). "Lentinula edodes substrate formulation using Multilayer Perceptron-Genetic Algorithm: a critical production checkpoint". **Frontiers in Microbiology**, 15:1366264.
2. Safaie, N., Salehi, M., Felegari, M., **Farhadi, S.**, Karimzadeh, S., Asadi, S., Yang, J.L. and Naghavi, M.R. (2024). "Culture-based diversity of endophytic fungi of three species of *Ferula* native to Iran". **Frontiers in Microbiology**, 15:1363158.
3. Salehi, M., **Farhadi, S.**, Moieni, A., Safaie, N., and Hesami, M. (2021). A hybrid model based on general regression neural network and fruit fly optimization algorithm for forecasting and optimizing paclitaxel biosynthesis in *Corylus avellana* cell culture. **Plant Methods**, 17(1), 1-13.
4. **Farhadi, S.**, Sabet, M.S., Malboobi, M.A., and Moieni, A. (2020). "The Critical Role of *AtPAP17* and *AtPAP26* Genes in Arabidopsis Phosphate Compensation Network". **Frontiers in Plant Science**
5. **Farhadi, S.**, Moieni, A., Safaie, N., Sabet, M.S. and Salehi, M. (2020). "Fungal Cell Wall and Methyl- β -Cyclodextrin Synergistically Enhance Paclitaxel Biosynthesis and Secretion in *Corylus avellana* Cell Suspension Culture". **Scientific Reports** (10)1, 1-10.
6. **Farhadi, S.**, Salehi, M., Moieni, A., Safaie, N., and Sabet, M.S. (2020). "Modeling of paclitaxel biosynthesis elicitation in *Corylus avellana* cell culture using adaptive neuro-fuzzy inference system-genetic algorithm (ANFIS-GA) and multiple regression methods". **PLoS ONE**, 15 (8).
7. Salehi, M., **Farhadi, S.**, Moieni, A., Safaie, N. and Ahmadi, H. (2020). Mathematical modeling of growth and paclitaxel biosynthesis in *Corylus avellana* cell culture responding to fungal elicitors. **Frontiers in Plant Science** 11:1081.
8. Salehi, M., Moieni, A., and Safaie, N. and **Farhadi, S.** (2020). "Whole fungal elicitors boost paclitaxel biosynthesis induction in *Corylus avellana* cell culture". **PLoS ONE**, 15 (7).
9. Salehi, M., Moieni, A., Safaie, N. and **Farhadi, S.** (2019). "New synergistic co-culture of *Corylus avellana* cells and *Epicoccum nigrum* for paclitaxel production", **Journal of Industrial Microbiology & Biotechnology**, 1-11.
10. Salehi, M., Moieni, A., Safaie, N. and **Farhadi, S.** (2019). "Elicitors derived from endophytic fungi *Chaetomium globosum* and *Paraconiothyrium brasiliense* enhance paclitaxel production in *Corylus avellana* cell suspension culture", **Plant Cell, Tissue and Organ Culture (PCTOC)**, 1-11.
11. **Farhadi, S.**, Sabet, M.S., Moieni, A. and Malboobi, M.A. (2020). "Effect of Two Phosphatase *AtPAP17* and *AtPAP26* Gene-Knock-out on Growth Period Duration and Flowering in *Arabidopsis thaliana*", **Modern Genetic Journal**, (In Persian).

12. **Farhadi, S.**, Sabet, M.S. and Sabzalipoor, H. (2015). "Acceleration of Flowering Time and Biomass by Overexpression of Purple Acid Phosphatase Genes", International Conference on Biological Products, 18-20 September 2015, Shanghai, China.
13. **Farhadi, S.** and Sabet, M.S. (2015). "Relationship Identification of *AtPAP17* and *AtPAP26* Purple Acid Phosphatase Genes through *Arabidopsis thaliana atpap17/atpap26* Double Mutant Plants Production", The first International and 9th National Biotechnology Congress, 24-26 May 2015, Tehran, Iran.
14. **Farhadi, S.** and Sabet, M.S. (2015). "Identification of Two Enzymes Effective in Root Extension and Growth Period in *Arabidopsis thaliana* Plant", The first International and 9th National Biotechnology Congress, 24-26 May 2015, Tehran, Iran.
15. Khodadadi, F., Sabet, M.S., **Farhadi, S.**, Jamali, A. and Malboobi, M.A. (2015). "Heterologous Expression Effect of an *Arabidopsis thaliana* Purple Acid Phosphatase Gene on tobacco Transgenic Phosphorus Content", The first International and 9th National Biotechnology Congress, 24-26 May 2015, Tehran, Iran.

BOOKS AND BOOK CHAPTERS

1. Salehi, M. and **Farhadi, S.** (2022). Strategies for enhancing bioavailability of Paclitaxel for cancer treatment. In: Anticancer drug, Paclitaxel: Natural sources, Chemistry, Pharmacology and Biotechnology (eds Swamy, M. K., Pullaiah, T. and Chen, Z.) Ch. 5, pp. 129-153. Elsevier.
2. **Farhadi, S.**, Salehi, M and Safaie, N. (2019). Graphical Presentation of Research Results with Graph Pad. 1. Tehran: Academic Center for Education, Culture and Research-Tehran Branch, Iran, (In Persian).
3. Gholizadeh, A., **Farhadi, S.**, Alizadeh, B. (2018). Plant Breeding for Drought Tolerance: Mechanisms and Strategies. 1. Tehran: Agricultural Extension and Education, Iran, (In Persian).