

## CV

### 1. Personal Information:

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| <b>Name:</b> Zahra-Sadat                                                                                                                                                                                                                                       | <b>Family:</b> Shobbar                                                                                                                         |
| <b>Date of Birth:</b> June 18, 1975                                                                                                                                                                                                                            | <b>Place of Birth:</b> Tehran, Iran                                                                                                            |
| <b>Scientific degree:</b> Ph.D.                                                                                                                                                                                                                                | ORCID ID: 0000-0002-7011-5415                                                                                                                  |
| <b>Address:</b><br>Agricultural Biotechnology Research<br>Institute of Iran (ABRII), Seed and<br>Plant Improvement Institutes Campus,<br>P. O. Box: 31535-1897<br>Mahdasht Road, Karaj, Iran<br><br><b>Tel:</b> +98 26 32703536<br><b>Fax:</b> +98 26 32704539 | <b>E-Mail:</b><br><a href="mailto:shobbar@abrii.ac.ir">shobbar@abrii.ac.ir</a> ,<br><a href="mailto:shobbarz@yahoo.com">shobbarz@yahoo.com</a> |



### 2. Educational Background:

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| Ph.D., 2002-2007, Molecular Genetics & Genetic Engineering, Department of Plant Breeding, Faculty of Agriculture, Tarbiat Modarres University, Tehran, Iran. |
| M.Sc., 1997-1999, Genetics, Department of Biology, Faculty of Science, Tarbiat Modarres University, Tehran, Iran.                                            |
| B.Sc., 1993-1997, Biology-Plant Science, Department of Biology, Faculty of Science, Tehran University, Tehran, Iran.                                         |

### 3. Positions:

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| Associate Professor at Agricultural Biotechnology Research Institute of Iran (ABRII), Karaj, Iran (2019-Now).                         |
| Assistant Professor at ABRII, Karaj, Iran (2006-2019).                                                                                |
| Ph.D. thesis scholar at International Rice Research Institute (IRRI), Philippines (2004-2006).                                        |
| Research Assistant at ABRII, Karaj, Iran (2001-2004).                                                                                 |
| Research Assistant at National Research Centre for Genetic Engineering and Biotechnology (NRCGEB), Tehran, Iran (1998-2001).          |
| Research Assistant in plant Physiology Group, Department of Biology, Faculty of Science, Tehran University, Tehran, Iran (1996-1997). |

#### 4. Publications:

##### International:

Aliakbar Faramarzpour, Sara Dezhsetan, Hamid Hassaneian Khoshro, Raheleh Mirdar Mansuri, Hamid Reza Pouralibaba, **Zahra-Sadat Shobbar\*** (2025). The transcriptional response to yellow and wilt disease, caused by race 6 of *Fusarium oxysporum* f. sp. *Ciceris* in two contrasting chickpea cultivars. *BMC Genomics* **26**, 106. <https://doi.org/10.1186/s12864-025-11308-3> (Q1, Impact Factor= 4.1)

Jahad Soorni, Fatemeh Loni, Parisa Daryani, Nazanin Amirbakhtiar, Leila Pourhang, Hamid Reza Pouralibaba, Hamid Hassaneian Khoshro, Hadi Darzi Ramandi, **Zahra-Sadat Shobbar\*** (2025) Developing resistance to fusarium wilt in chickpea: from identifying meta-QTLs to molecular breeding. *The Plant Genome*. <https://doi.org/10.1002/tpg2.70004> (Q1, Impact Factor= 3.9)

Parisa Daryani, Nazanin Amirbakhtiar, Jahad Soorni, Fatemeh Loni, Hadi Darzi Ramandi, **Zahra-Sadat Shobbar\*** (2024) Uncovering the genomic regions associated with yield maintenance in rice under drought stress using an integrated meta-analysis approach. *Rice* 17, no. 1: 1-36. <https://doi.org/10.1186/s12284-024-00684-1> (Q1, Impact Factor= 5.8)

Fatemeh Loni, Ahmad Ismaili, Babak Nakhoda, Hadi Darzi Ramandi, **Zahra-Sadat Shobbar \*** (2023) The genomic regions and candidate genes associated with drought tolerance and yield-related traits in foxtail millet: an integrative meta-analysis approach, *Plant Growth Regulation*: 1-17 (Q1, Impact Factor= 3.607)

Alireza Akbari, Ahmad Ismaili, Nazanin Amirbakhtiar, Masoumeh Pouresmael, **Zahra-Sadat Shobbar\*** (2023) Genome-wide transcriptional profiling provides clues to molecular mechanisms underlying cold tolerance in chickpea. *Scientific Repots* 13, 6279. <https://doi.org/10.1038/s41598-023-33398-3> (Q1, Impact Factor= 5.516)

Razieh Sarabadani Tafresh, **Zahra-Sadat Shobbar\***, Maryam Shahbazi, Mohammadreza Bihamta, Amin Karami, Mohammad Moradi, Hamidreza Nikkhah (2023). Role of barley stem reserves in the maintenance of grain yield under terminal drought. *Crop Science*, 00, 00–00. <https://doi.org/10.1002/csc2.20919> (Q1, Impact Factor= 2.763)

Raheleh Mirdar Mansuri, Amir-Hossein Azizi, Amir-Hossein Sadri, **Zahra-Sadat Shobbar\*** (2022). Long non-coding RNAs as the regulatory hubs in rice response to salt stress. *Scientific Repots* 12, 21696. <https://doi.org/10.1038/s41598-022-26133-x> (Q1, Impact Factor=5.516)

Ahad Jamshidi Zinab, Tahereh Hasanloo, Amir Mohammad Naji, Nasser Delangiz, Salar Farhangi-Abri, Behnam Asgari Lajayer, Arash Hemati, **Zahra-Sadat Shobbar**, Muhammad Farooq, M. (2022). Physiological and Biochemical Evaluation of Commercial Oilseed Rape (*Brassica Napus* L.) Cultivars Under Drought Stress. *Gesunde Pflanzen*. <https://doi.org/10.1007/s10343-022-00755-7>

Somayeh Abdirad, Mohammad Reza Ghaffari, Ahmad Majd, Saeed Irian, Armin Soleymaniniya, Parisa Daryani, **Zahra-Sadat Shobbar** et al. (2022): Genome-Wide Expression Analysis of Root Tips in Contrasting Rice Genotypes Revealed Novel Candidate Genes for Water Stress Adaptation. *Frontiers in Plant Science* 13, 792079. <https://doi.org/10.3389/fpls.2022.792079> (Q1)

Jahad Soorni, **Zahra-Sadat Shobbar**, Danial Kahrizi, Federica Zanetti, Khosro Sadeghi, Samira Rostampour, Péter Gábor Kovács, Attila Kiss, Iman Mirmazloun (2022) Correlational Analysis of Agronomic and Seed Quality Traits in *Camelina sativa* Doubled Haploid Lines under Rain-Fed Condition. *Agronomy*; 12(2):359. <https://doi.org/10.3390/agronomy12020359> (Q1)

Parisa Daryani, Hadi Darzi Ramandi, Sara Dezhsetan, Raheleh Mirdar Mansuri, Ghasem Hosseini Salekdeh, **Zahra-Sadat Shobbar\*** (2021) Pinpointing genomic regions associated with root system architecture in rice through an integrative meta-analysis approach. *Theoretical and Applied Genetics*: 1-26. <https://doi.org/10.1007/s00122-021-03953-5> (Q1, Impact Factor= 5.699 )

Nazanin Amirbakhtiar, Ahmad Ismaili, Mohammad Reza Ghaffari, Raheleh Mirdar Mansuri, Sepideh Sanjari, **Zahra-Sadat Shobbar\*** (2021) Transcriptome analysis of bread wheat leaves in response to salt stress. *PLoS ONE* 16(7): e0254189. <https://doi.org/10.1371/journal.pone.0254189> (Q1, 4-year Impact Factor=3.57)

Sepideh Sanjari, **Zahra-Sadat Shobbar**, Faezeh Ghanati, Sanaz Afshari-Behbahanizadeh, Mostafa Farajpour, Mojtaba Jowkar, Azim Khazaei, Maryam Shahbazi (2021) Molecular, chemical, and physiological analyses of sorghum leaf wax under post-flowering drought stress, *Plant Physiology and Biochemistry*, 15: 383-391. DOI: 10.1016/j.plaphy.2021.01.001. (Q1, Impact Factor= 3.72)

Seyedeh Mehri Javadi, **Zahra-Sadat Shobbar\***, Asa Ebrahimi, Maryam Shahbazi (2021) New insights on key genes involved in drought stress response of barley: gene networks reconstruction, hub, and promoter analysis, *Journal of Genetic Engineering and Biotechnology*, 19: 2, 1-12 DOI: 10.1186/s43141-020-00104-z

Raheleh Mirdar Mansuri, **Zahra-Sadat Shobbar\***, Nadali Babaeian Jelodar, Mohammadreza Ghaffari, Seyed Mahdi Mohammadi, Parisa Daryani (2020) Salt tolerance involved candidate genes in rice: an integrative meta-analysis approach, *BMC Plant Biology*, 20 (1), 1-14 DOI: 10.1186/s12870-020-02679-8 (Q1, Impact Factor= 4.494)

Beniamin Yazdani, Sepideh Sanjari, Reza Asghari-Zakaria, Farzan Ghanegolmohammadi, Ehsan Pourabed, Maryam Shahbazi and **Zahra-Sadat Shobbar\*** (2020) Revision of the barley WRKY gene family members and phylogeny, plus expression analysis of the candidate genes in response to drought, *Biologia plantarum*, 64: 9-19 DOI: 10.32615/bp.2019.109 (Q1, Impact Factor=1.384)

Panthea Vosough-Mohebbi, Mehdi Zahravi, Mehdi Changizi, Shahab Khaghani, **Zahra-Sadat Shobbar** (2020) Identification of the differentially expressed genes of wheat genotypes in response to powdery mildew infection. *Caryologia. International Journal of Cytology*,

Cytosystematics and Cytogenetics, 73 (2): 63-72. DOI: 10.13128/caryologia-752

Ali Akbar Ghotbi-Ravandi, Mansour Shariati, Zahra-Sadat Shobbar, Maryam Shahbazi (2019) Expression pattern and physiological roles of Plastid Terminal Oxidase (PTOX) in wild and cultivated barley genotypes under drought stress, *Environmental and Experimental Botany* DOI: 10.1016/j.envexpbot.2019.03.007 (Q1, Impact Factor=3.666)

Nazanin Amirbakhtiar, Ahmad Ismaili, Mohammad Reza Ghaffari, Farhad Nazarian Firouzabadi, Zahra-Sadat Shobbar\* (2019) Transcriptome response of roots to salt stress in a salinity-tolerant bread wheat cultivar, *PLOS ONE* DOI: 10.1371/journal.pone.0213305 (Q1, 4-year Impact Factor=3.344)

Raheleh Mirdar Mansuri, Zahra-Sadat Shobbar\*, Nadali Babaeian Jelodar, Mohammad-Reza Ghaffari, Ghorban-Ali Nematzadeh, Saeedeh Asari (2019) Dissecting Molecular Mechanisms Underlying Salt Tolerance in Rice: A Comparative Transcriptional Profiling of the Contrasting Genotypes, *Rice* 12 (1), 13 DOI : 10.1186/s12284-019-0273-2 (Q1, 5-year Impact Factor=4.45)

Sepideh Sanjari, Reza Shirzadian-Khoramabad, Zahra-Sadat Shobbar\*, Maryam Shahbazi (2019) Systematic analysis of NAC transcription factors' gene family and identification of post-flowering drought stress responsive members in sorghum. *Plant Cell Reports*, DOI: 10.1007/s00299-019-02371-8 (Q1, Impact Factor=2.989)

Sudabe Jafari, Houshang Alizadeh, Daryoush Davoodi, Parisa Jonoubi, Ahmad Majd, Zahra-Sadat Shobbar, Mojtaba Zamani (2018) Changes in Cytomorphology, Expression of Retinoblastoma Related Gene, and Superoxide Dismutase Enzyme Activity in Maize Cell Culture Exposed to Silver Nanoparticles. *IEEE Transactions on Nanobioscience*, 17(4):380-386 (Q2, Impact Factor=2.158).

Raha Abedini, Farzan GhaneGolmohammadi, Reihaneh PishkamRad, Ehsan Pourabed, Ahad Jafarnezhad, Zahra-Sadat Shobbar, Maryam Shahbazi (2017) Plant dehydrins: shedding light on structure and expression patterns of dehydrin gene family in barley. *Journal of plant research*. 130:747–763. (Q1, Impact Factor= 1.684)

Mahrokh Sharbatkhari, Zahra-Sadat Shobbar\*, Serrollah Galeshi, Babak Nakhoda (2016) Wheat stem reserves and salinity tolerance: molecular dissection of fructan biosynthesis and remobilization. *Planta*. 244(1): 191-202. (Q1, Impact Factor=3.239)

Zahra Gerivani, Hamid Reza Sadeghipour, Mahnaz Aghdasi, Zahra-Sadat Shobbar, Majid Azimmohseni (2016) Short versus long term effects of cyanide on sugar metabolism and transport in dormant walnut kernels. *Plant Science*. 252: 193–204. (Q1, Impact Factor=3.982)

Kamal Payghamzadeh, Mahmood Toorchi, Zahra-Sadat Shobbar (2016) Proteome alteration of soybean as a function of pod distortion syndrome. Accepted in *Legume Research*. (Q4, Impact Factor= 0.145)

Sepideh Sanjari, Zahra-Sadat Shobbar\*, Mohsen Ebrahimi, Tahereh Hasanloo, Seyed- Ahmad Sadat-Noori, Soodeh Tirnaz (2015) Chalcone Synthase Genes from Milk Thistle (*Silybum marianum*): Isolation and Expression Analysis. *Journal of Genetics*. 94 (4):611-617. (Q4, Impact

Factor= 1.108)

Ehsan Pourabed, Farzan Ghane Golmohamadi, Peyman Soleymani Monfared, Seyed Morteza Razavi, Zahra-Sadat Shobbar\* (2015) Basic Leucine Zipper Family in Barley: Genome-Wide Characterization of Members and Expression Analysis. *Molecular Biotechnology*. 57:12-26. (Q2, Impact Factor=2.444)

Mohammad Kazem Rezaei, Zahra-Sadat Shobbar\*, Maryam Shahbazi, Raha Abedini, Sajjad Zare (2013) Glutathione S-transferase (GST) family in barley: Identification of members, enzyme activity, and gene expression pattern. *Journal of Plant Physiology*, 170 (14): 1277-1284. (Q1, Impact Factor= 3.241)

Amin Karami, Maryam Shahbazi, Vahid Niknam, Zahra Sadat Shobbar, Razieh Sarabadani Tafreshi, Raha Abedini, Hasan Ebrahimzadeh Mabood (2013) Expression analysis of dehydrin multigene family across tolerant and susceptible barley (*Hordeum vulgare* L.) genotypes in response to terminal drought stress. *Acta Physiologiae Plantarum*, 35 (7): 2289-2297. (Q2, Impact Factor= 1.59)

Mahrokh Sharbatkhari, Serrollah Galeshi, Zahra-sadat Shobbar, Babak Nakhoda, Maryam Shahbazi (2013) Assessment of agro-physiological traits for salt tolerance in drought-tolerant wheat genotypes. *International Journal of Plant Production*. 7 (3): 437-454. (Q2, Impact Factor= 1.1)

Fatemeh Maleki, Reza Fotovat, Mohamadreza Azimi, Farid Shekari, Zahra Sadat Shobbar (2013) Changes in some cation concentrations of four wheat (*Triticum aestivum* L.) cultivars pretreated with salicylic acid under salt stress. *International Journal of Agronomy and Plant Production*. 4 (8): 1813-1818

Maryam-Sadat Shobbar, Omid Azhari, Zahra-Sadat Shobbar\*, Vahid Niknam, Hossein Askari, Mohammad Pessarakli, and Hasan Ebrahimzadeh (2012) Comparative analysis of some physiological responses of rice seedlings to cold, salt and drought stresses. *Journal of Plant Nutrition*. 35:1037-1052. (Q2, Impact Factor= 1.001)

Muthurajan R, Zahra-Sadat Shobbar, Jagadish SV, Bruskiewich R, Ismail A, Leung H, Bennett J. (2011) Physiological and proteomic responses of rice peduncles to drought stress. *Molecular Biotechnology*. 48:173–182. (Q2, Impact Factor= 2.444)

Shobbar M-S., Niknam V., Zahra-Sadat Shobbar, Ebrahimzadeh H. (2010) Effect of Salt and Drought Stresses on Some Physiological Traits of Three Rice Genotypes Differing in Salt Tolerance. *Journal of Science University of Tehran*. 36(2): 1-9.

Zahra-Sadat Shobbar, Rowena Oane, Rico Gamuyao, Justina de Palma, Mohammad Ali Malboobi, Ghasem Karimzadeh, Mokhtar Jalali Javaran, John Bennett\* (2008) Absciscic acid regulates gene expression in cortical fiber cells and silica cells of rice shoots. *New phytologist* 178 (1): 68-79. (Q1, Impact Factor= 7.07)

Zahra-Sadat Shobbar, Mohammad Ali Malboobi\*, Daniel D. Lefebvre (2005) Identification and expression analysis of two *Arabidopsis* LRR-protein encoding genes responsive to some abiotic stresses. *Iranian Journal of Biotechnology* 3 (4): 216-224. (Q4, Impact Factor= 0.31)

S.M. Samaee, Zahra-Sadat Shobbar, Hudson Ashrafi, Mehdi Hosseini-Mazinani, Masoud Sheidai (2003) Molecular characterization of olive germplasm in Iran by use of random amplified polymorphic DNA (RAPD): Correlation with phenotypic studies. *Acta Horticulture* (ISHS) 623:169-175.

### **National:**

Pil-Aghae, M., Shobbar, Z. S., & Pourdad, S. S. (2024). Optimization of high-resolution melting (HRM) method: A case study on the gene responsible for converting oleic acid to linoleic acid in safflower. *Journal of Genetics and Plant Breeding*, 1(3), 1–18.

Khoshro, H. H., Shobbar, Z. S., Pouralibaba, H. R., Sorni, J., & Pourhang, L. (2023). Producing chickpea resistance line to Fusarium wilt (*Fusarium oxysporum*) using marker-assisted backcrossing. *Iranian Dryland Agronomy*, 2, 175–188.  
<https://doi.org/10.22092/idadj.2023.363207.410>

Seyed Hassan Pour, S. M., NejadSadeghi, L., Kahrizi, D., & Shobbar, Z. S. (2024). Bioinformatic and phylogenetic investigation of WRKY genes involved in drought stress in *Camelina sativa* plant. *Agrotechniques in Industrial Crops*, 4(2), 65–79.  
<https://doi.org/10.22126/atic.2023.8830.1084>

Seyed Hassan Pour, S. M., S. H., Nejhadsadeghi, L., Shobbar, Z. S., & Kahrizi, D. (2024). Identification and investigation of WRKY gene family in camelina plant (*Camelina sativa*) and identification of the most important gene members involved in drought stress. *Plant Genetic Research*, 10(2), 63–78.

Khazaei, A., Shahbazi, M., Sabouri, A., Shobbar, Z. S., & Golzardi, F. (2023). Investigation of morphophysiological characteristics of cultivars and promising lines of grain sorghum [*Sorghum bicolor* (L.) Moench] under late-season drought stress. *Journal of Agricultural Science and Sustainable Production*, 32(4), 201–215.  
<https://doi.org/10.22034/saps.2022.49621.2796>

Shahbazi, M., Karami, A., Pazirandeh, M. S., & Shobbar, Z. S. (2022). Glutathione-S transferases and their function as a protein superfamily in plants. *Journal of Plant Process and Function*, 1, 23–36.

Akbari, A., Ismaili, A., Shobbar, Z., Amirbakhtiar, N., & Pouresmael, M. (2022). Identification of candidate microRNAs involved in cold tolerance of chickpea. *Genetic Engineering and Biosafety Journal*, 11(1).

Loni, F., Ismaili, A., Shobbar, Z., Nakhoda, B., & Ramandi, H. D. (2022). Identification of the drought tolerance involved candidate genes in foxtail millet through an integrated meta-analysis approach. *Genetic Engineering and Biosafety Journal*, 11(1).

Daryani, P., Ramandi, H. D., Dezhsetan, S., & Shobbar, Z. (2022). Identification of genomic regions associated with root system architecture in rice using meta-analysis of QTL. *Crop*

*Biotechnology*, 11(36), 95–118. <https://doi.org/10.30473/cb.2022.62126.1863>

Hashemi, F., Shobbar, Z. S., & Majidi, M. M. (2012). Functional analysis of OsVP1 using rice mutant lines. *Journal of Agricultural Biotechnology*, 4(2), 89–102.

Sanjari, S., Shobbar, Z. S., Ebrahimi, M., Hasanloo, T., & Noori, S. A. S. (2012). Identification and cloning of chalcone synthase gene family in milk thistle (*Silybum marianum* L.) plant. *Journal of Agricultural Biotechnology*, 4(1), 49–63.

Shobbar, M.-S., Shobbar, Z.-S., & Niknam, V. (2012). OsABI5 and OsVP1, two transcription factors involved in abiotic stress response in rice. *Journal of Plant Biology*, 14, 49–60.

Shobbar, Z. S., Malboobi, M. A., Javaran, M. J., Karimzadeh, G., & Bennett, J. (2012). Induction of OsVP1 transcription factor encoding gene by drought-stress and ABA at reproductive stage of rice. *Modern Genetic Journal*, 7(2), 203–208.

Abedini, R., Shahbazi, M., Shobbar, Z. S., Pishkam Rad, R., & Ebrahimi, A. (2012). Expression analysis of dehydrins gene family in barley tolerant and sensitive cultivars and wild genotype under drought conditions. *Journal of Plant Biology*, 11, 39–46.

Shobbar, Z. S., & Bennett, J. (2011). Identification and expression analysis of an ABA and drought stress inducible protein phosphatase 2C in rice. *Crop Biotechnology*, 1(1), 23–33.

Tirnaz, S., Shobbar, Z. S., Mohamadi-Nejad, G., Koobaz, P., & Bonjar, G. H. S. (2010). Gene expression analysis of OsPP2C5, a candidate protein phosphatase involved in ABA signal transduction, under salt, drought and cold stress in rice. *Journal of Agricultural Biotechnology*, 1(2), 67–78.

Shobbar, Z. S., Malboobi, M. A., Javaran, M. J., Karimzadeh, G., Mohammadi-Nejad, G., Raveendran, M., & Bennett, J. (2008). Incomplete rice panicle exertion in cytoplasmic sterile lines and gibberellic acid effect. *Iranian Journal of Agricultural Science*, 39(1), 23–39.

Shobbar, Z. S., Malboobi, M. A., Karimzadeh, G., Javaran, M. J., Mohammadi-Nejad, G., & Bennett, J. (2008). Drought stress and plant hormonal impact on rice peduncle elongation. *Iranian Journal of Biology*, 21(3), 411–420.

## 5. Book (Chapter):

Zahra-Sadat Shobbar, Nazanin Amirbakhtiar, Raheleh Mirdar Mansuri, Fatemeh Loni, Alireza Akbari, Mahboube Sasaninezhad, Chapter 11 - Small RNAs involved in salt stress tolerance of food crops, Editor(s): Praveen Guleria, Vineet Kumar, Beixin Mo, Plant Small RNA in Food Crops, Academic Press, 2023, Pages 295-346, ISBN 9780323917223, <https://doi.org/10.1016/B978-0-323-91722-3.00003-8>.