



BEHNAM BAKHSHI

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PERSONAL INFORMATION:

NAME: Behnam

SUR NAME: Bakhshi

DATE OF BIRTH: April 12nd, 1982

POSITION

Assistance professor at Seed and Plant Improvement Institute of Agricultural Research, Education, and Extension Organization(AREEO) since 2018

EDUCATIONAL AND ACADEMIC RECORDS:

- 2009-2014, **Ph.D.** in Plant Breeding and Biotechnology at Science and Research Branch of Azad University, Tehran, Iran.
- **Ph.D. Thesis Title:** Identification of the drought, drought signaling and wet signaling responsive microRNAs in rice roots using high-throughput deep sequencing
- 2006-2009, **M.Sc.** in Plant Breeding at Science and Research Branch of Azad University, Tehran, Iran, with 19.61 of 20.00, ranked first among all students of College of Agriculture.
- **M.Sc. Thesis Title:** Evaluation of Genetic Diversity for morphological and Kariotype Traits among collection of Iranian Aegilops cylindrical
- 2000-2006, **B.Sc.** in Agronomy and Plant Breeding, Azad University, Varamin branch, Tehran, Iran, with 16.17 of 20.00.

HONORS:

* Ranked first among all students in 2006-2009, with 19.80 of 20.00 and prized by the University head.

* Member of young researchers and elite club of Science and Research Branch of Islamic Azad University

LANGUAGES:

Persian and English

PROFESSIONAL AFFILIATIONS:

Member of Iranian Genetic Society
Member of Iranian Bioinformatics Society
Member of Iranian Biotechnology Society

COMPUTING EXPERIENCES:

Quite good in MS Office products including Word, Excel and PowerPoint.
Programming softwares including R, C#.NET, SQL, VB6, VB.NET, FoxPro
Statistical softwares including SAS, SPSS, MINITAB,...
Bioinformatics Softwares

ADMINISTRATIVE EXPERIENCES:

- Head of IT department at agricultural and natural research and education center since 2019
- Member of Executive Committee in the 5st National Biotechnology Congress of Iran, Tehran, Iran.
- Member of Executive Committee in the 8st International Biotechnology Congress of Iran, Tehran, Iran.

WORKSHOPS AND CONGRESSES:

1. 5th International Weed Science Congress, 23 to 27 June 2008, Vancouver, Canada
2. 5th International Crop Science Congress, April 13-18, 2008, Jeju, Korea
3. 5st National Biotechnology Congress of Iran, November 24-26, 2006, Tehran, Iran
4. 6st National Biotechnology Congress of Iran, August 13-15, 2009, Tehran, Iran
5. 8st National Biotechnology Congress of Iran, July 6-8, 2013, Tehran, Iran
6. National conference on agricultural science and technologies, 2013, Malayer, Iran
7. 13st National Genetic Congress of Iran, May 22-24, 2008, Tehran, Iran
8. 1st National Cytotechnology Congress of Iran, November 11-12, 2009, Mashhad, Iran
9. 9st National Genetic Congress of Iran, May 22-24, 2008, Tehran, Iran
10. 10st National Crop Science Congress of Iran, August 19-21, 2008, Tehran, Iran
11. 2st national Weed Science Congress of Iran, January 29-30, 2007, Mashhad, Iran

12. PCR and electrophoresis workshop, 2010, Tehran, Iran
13. Bioinformatics workshop, 2010, Tehran, Iran
14. RealTime-PCR workshop, 2012, Tehran, Iran
15. RNA extraction and cDNA synthesis, 2013, Tehran, Iran
16. 1st International and 13th Iranian genetic congress, 2014, Tehran, Iran
17. National conference on agricultural science and technologies, 2015, Malayer, Iran
18. 2nd International and 14th Iranian genetic congress, 2016, Tehran, Iran
19. 8th Iranian conference on bioinformatics, February 18-20, 2019, Zabol, Iran
20. 11th Congress of National Horticultural Science, August 2019, Urumia, Iran
21. 6th Iranian Conference of Plant Physiology, October 2019, Yazd, Iran
22. 3th International conference of agricultural engineering, natural resources and environment, 2020, Iran
23. 16th National Iranian Crop Science Congress, January 2020, Khozestan, Iran.

BOOK PUBLICATIONS:

Behnam Bakhshi, Application of SPSS in statistical analysis of agriculture, 2009, Sepehr publication, ISBN : 978-964-6123-88-5

<h3>JOURNALS ARTICLES:</h3>

1. Bakhshi, B., Mohseni Fard, E., Nikpay, N., Ebrahimi, M.A., Bihamta, M.R., Mardi, M., and Salekdeh, G.H. MicroRNA Signatures of Drought Signaling in Rice Root . **PLOS ONE**, 2016. 11(6), e0156814.
2. Bakhshi, B., Mohseni Fard, E., Nikpay, N., and Salekdeh, G.H. The contrasting microRNA content of a drought tolerant and drought susceptible wheat cultivar, **Journal of plant physiology**. 2017, 216, 35-43.
3. Mohseni Fard, E., Bakhshi, B., Nikpay, N., and Salekdeh, G.H. Drought responsive microRNAs in two barley cultivars differing in their level of sensitivity to moisture stress. **Plant physiology and biochemistry**. 2017, 118, 121-129.
4. Mohseni Fard, E., Bakhshi, B., Farsi, M., Kakhki, A.M., Nikpay, N., Ebrahimi, M.A., Mardi, M., and Salekdeh, G.H. MicroRNAs Regulate the Main Events in Rice Drought Stress Response by Manipulating the Water Supply to Shoots. **Molecular biosystems**. 2017, 13(11), 2289-2302. DOI: 10.1039/C7MB00298J
5. Bakhshi, B., Jaffar Aghaei, M., Bihamta, M.R. and Darvish, Ploidy determination of *Aegilops cylindrica* Host accessions of Iran by using flow cytometry and chromosome counting. **Iranian Journal of Botany**, 2010. Vol. 16(2), 258-266
6. Bakhshi, B., Salekdeh, G.H., Bihamta, M.R., Tohidfar, M., Characterization of three key microRNAs in rice root architecture under drought stress using in silico analysis and quantitative Real-time PCR. **Bioscience, biotechnology research Asia**. 2014, Vol. 11(2),

555-565.

7. Bakhshi, B., Mohsenifard, E., Bihamta, M.R., Salekdeh, G.H., Evaluation of miR398 differential expression in rice under drought stress condition. 2014, **Bulletin of the Georgian national academy of science**. Vol. 8(3).
8. Safarzadeh, M., Fotovat, R., Azimi, M., Mohseni Fard, E., Bakhshi, B., Expression Analysis of miRNAs That Regulate Transcription Factors Related to Auxin, Gibberellin and ABA Signaling Pathways, under Water Stress in Wheat (*Triticum aestivum* L.). 2014, **Crop Biotech**. 6: 21-33
9. Bakhshi, B., Bihamta, M. R., Salekdeh, G.H., Tohidfar., M., Identification of Drought Related MicroRNAs in Rice Root at Early Stage. 2013, **Crop Biotech**. 5: 93-102
10. Bakhshi, B., Aghaei, M. J., Bihamta, M. R., & Darvish, F. Investigation of geographical distribution and genetic diversity of *Aegilops cylindrica* in Iran. **Iranian Journal of Rangelands and Forests Plant Breeding and Genetic Research**, 2009, 17(2), 209-221.
11. Mohseni Fard, E., Ghabouli, M., Nastaran Mehri, Bakhshi, B., Regulation of miR159 and miR396 mediated by *Piriformospora indica* confer drought tolerance in rice. 2017, **Plant molecular breeding**, 5(1).
12. Kamali, Mehdi, Behnam Bakhshi, Ali Salimi, Ehsan Mohseni Fard, Mohammad Hasan Darvishi, and Elahe Ehghaghi. "Exploration of Specific DNA-Barcodes in *Shigella dysenteriae* Using In-silico Analysis. 2017, **Avicenna Journal of Clinical Microbiology and Infection**, no. 4.
13. Masoudi, Bahram, Mohsen Mardi, Eslam Majidi Hervan, Mohammad Reza Bihamta, Mohammad Reza Naghavi, Babak Nakhoda, Behnam Bakhshi, Mehrzad Ahmadi, Mohammad Taghi Tabatabaei, and Mohamad Hossein Dehghani Firouzabadi. Study of QTLs linked to awn length and their relationships with chloroplasts under control and saline environments in bread wheat. **Genes & genomics**, 2018, 1-9.
14. Bakhshi, Behnam, Mohammad Jaffar Aghaei, Mohammad Reza Bihamta, Eisa Zarifi, and Bahram Masoudi. "A facile method to estimate total chromosome length of *Aegilops* genus." **International Journal of Biological Sciences and Research** 1, 2018, 3: 124-129.
15. Bakhshi, Behnam. Extensive genetic diversity a profitable tool to improve eggplant against drought stress. **Research & Reviews: Journal of Botanical Sciences**, 2019, no.8
16. Bakhshi, Behnam, Mohammad Jaffar Aghaei, Eissa Zarifi, Mohammad Reza Bihamta, and Ehsan MohseniFard. Distribution and characterization of *Aegilops cylindrica* species from Iran. **Bangladesh Journal of Plant Taxonomy** , 2019, 525964.
17. Bakhshi, Behnam, and Ehsan Mohseni Fard. Whole *Aegilops tauschii* transcriptome investigation revealed nine novel miRNAs involved in stress response. **Current**

Bioinformatics, 2019, 525972.

18. Mohammad Reza Naroui Rad and Behnam Bakhshi. GGE biplot tool to identify melon fruit weight stability under different drought stress conditions. **International Journal of Vegetable Science**, 2020, 10.1080/19315260.2020.1805538
19. Ehsan Mohseni Fard, Sharif Moradi, Nava Nikpay Salekdeh, Behnam Bakhshi, Mohammad Reza Ghaffari, Mehrshad Zeinalabedini and Ghasem Hosseini Salekdeh. Plant isomiRs: origins, biogenesis, and biological functions. 2020, **Genomics**, 112(5).

CONGRESS ARTICLES:

1. Ehsan Mohseni Fard, Farid Moshgalizadeh, Behnam Bakhshi, Mehdi Gabooli: *Investigation of Rice miRNAs and identification of their target genes using bioinformatic analysis*. 2nd International and 14th National Iranian Crop Science Congress, University of Guilan, Rasht, Iran; 08/2016
2. Ehsan Mohseni Fard, Behnam Bakhshi, Farid Moshgalizadeh, Ghasem Hosseini Salekdeh, Reza Fotovat: *Characterization and discovery of the conserved and novel mirnas in wheat using highthroughput sequencing*. 2nd International and 14th National Iranian Crop Science Congress, University of Guilan, Rasht, Iran; 08/2016
3. Behnam Bakhshi, Mahdi Kamali, Ehsan Mohseni Fard, Ali Salimi, Mohammad Hasan Darvishi: *Identification of Shigella dysenteriae specific barcodes using comparative genomics*. 2nd International and 14th Iranian genetic congress, Tehran, Iran; 05/2016
4. Behnam Bakhshi, Ehsan Mohseni Fard: *Identification of novel miRNAs in Aegilops tauschii using bioinformatics tools*. 2nd International and 14th Iranian genetic congress, Tehran, Iran; 05/2016
5. Behnam Bakhshi, Ehsan Mohseni Fard, Ghasem Hosseini Salekdeh, Mohammad Reza Bihamta: *Identification of molecular mechanism of miRNAs in growth induction of plants under wet signaling (without water availability) using high-throughput deep sequencing and qRT-PCR*. 2nd International and 14th Iranian genetic congress, Tehran, Iran; 05/2016
6. Ehsan Mohseni Fard, Behnam Bakhshi, Ghasem Hosseini Salekdeh, Reza Fotovat: *Introduction of miRNAs involved in regulating wheat hormone signaling under drought stress*. 2nd International and 14th Iranian genetic congress, Tehran, Iran; 05/2016
7. Ehsan Mohseni Fard, Behnam Bakhshi, Ghasem Hosseini Salekdeh, Maryam Shahbazi, Reza Keshavarznia: *Assessment of miRNAs differential expression in drought tolerant and sensitive barley varieties under drought stress*. 2nd International and 14th Iranian genetic congress, Tehran, Iran; 05/2016

8. Ehsan Mohseni Fard, Behnam Bakhshi, Mahdi Ghabouli: *Investigation of Vitis vinifera miRNAs and identification of their target genes*. National conference on agricultural science and technologies, Malayer, Iran; 01/2015
9. Behnam Bakhshi, M. R. Bihamta, E. Mohsenifard, M. Tohidfar, N. Nikpey, G.H. Salekdeh: *Comprehensive overview of miRNAs differential expression in response to abiotic stresses*. 1st International and 13st Iranian genetic congress, Tehran, Iran; 05/2014
10. Behnam Bakhshi, M. R. Bihamta, M. Tohidfar, E. Mohsenifard, G.H. Salekdeh: *Identification of drought signaling Responsive miRNAs in rice roots using High throughput sequencing*. 1st International and 13st Iranian genetic congress, Tehran, Iran; 05/2014
11. Behnam Bakhshi, Mohammad Reza Bihamta, Ehsan Mohseni Fard, Masoud Tohidfar, Mahdieh Safarzadeh, Nava Nikpay, Ghasem Hosseini Salekdeh: *Comparative analysis and phylogeny studies of miRNAs among four species including Barley, Populus, Arabidopsis and Soybean*. National conference on agricultural science and technologies, Malayer, Iran; 12/2013
12. Behnam Bakhshi, Mohammad Reza Bihamta, Masoud Touhidfar, Ehsan Mohsseni Fard, Nava Nikpay, Ghasem Hosseini Salekdeh: *Evaluation differential expressions of miRNAs involved in auxin signaling under drought stress condition in Rice*. National conference on agricultural science and technologies, Malayer, Iran; 12/2013
13. Ehsan Mohsseni Fard, Mohammad Farsi, Amin Mirshamsi, Behnam Bakhshi, Nava Nikpay, Mahdieh safarzadeh, Ghasem Hosseini Salekdeh: *Computational identification and evaluation of candidate miRNAs differential expression in response to drought stress*. National conference on agricultural science and technologies, Malayer, Iran; 12/2013
14. Ehsan Mohseni Fard, Mohammad Farsi, Amin Mirshamsi, Behnam Bakhshi, Nava Nikpay, Ghasem Hosseini Salekdeh: *Identification of miRNAs involved in drought stress response using deep sequencing*. National conference on agricultural science and technologies, Malayer, Iran; 12/2013
15. Ehsan Mohseni Fard, Mohammad Farsi, Amin Mirshamsi Kakhaki, Behnam Bakhshi, Ghasem Hosseini Salekdeh: *Identification of oryza sativa drought-responsive microRNAs and their putative targets*. 8st National Biotechnology Congress of Iran, Tehran, Iran; 07/2013
16. Behnam Bakhshi, Mohammad Reza Bihamta, Masoud Tohidfar, Ehsan Mohseni Fard, Ghasem Hosseini salekdeh: *Investigation and characterization of miRNAs in normal and drought stress conditions of oryza sativa roots*. 8st National Biotechnology Congress of Iran, Tehran, Iran; 07/2013
17. Mahdieh Safarzadeh, Ehsan Mohseni Fard, Reza Fotovat, mohammad reza azimi, Behnam Bakhshi, Ghasem Hosseini Salekdeh: *Deep sequencing of Triticum aestivum microRNAs*

involved in drought stress response. 8st National Biotechnology Congress of Iran, Tehran, Iran; 07/2013

18. Mahdieh Safarzadeh, Ehsan Mohseni Fard, Marzieh safarzadeh, Behnam Bakhshi, Ghasem Hosseini Salekdeh: *Identification of three new families, miR167, miR172 and miR399 in Wheat(Triticum aestivum) by using bioinformatics approach*. 8st National Biotechnology Congress of Iran, Tehran, Iran; 07/2013
19. Ehsan Mohseni Fard, Mohammad Farsi, Amin Mirshamsi Kakhaki, Behnam Bakhshi, Mahdieh Safarzadeh, Ghasem Hosseini Salekdeh: *Investigation of oryza sativa miRNAs, identification of their target genes and comparative analysis with Arabidopsis thaliana, Zea mays and Vitis vinifera*. 8st National Biotechnology Congress of Iran, Tehran, Iran; 07/2013
20. Behnam Bakhshi, Ehsan Mohseni Fard, Mohammad Reza Bihamta, Masoud Tohidfar, Mohammad Farsi, Mahdie Safarzadeh, Ghasem Hosseini Salekdeh: *Identification and characterization of regulatory elements in the upstream regions of oryza sativa MIRNA genes*. 8st National Biotechnology Congress of Iran, Tehran, Iran; 07/2013
21. Behnam Bakhshi, Jaffar Aghaei M., Bihamta M.R., Darvish F., Zarifi E.: *Variation in DNA Index of Tetraploid Aegilops Cylindrica Accessions and relationship with average of chromosomes length*. 1st National Cytotechnology Congress of Iran, Mashhad, Iran; 09/2009
22. behnam bakhshi, Jaffar Aghaei M., Bihamta M.R., Darvish F., zarifi E.: *Cytogenetic study of Hexaploid Population of Aegilops cylindrica species*. 1st National Cytotechnology Congress of Iran, Mashhad, Iran; 09/2009
23. Behnam Bakhshi, Jaffar Aghaei M, Bihamta M.R., Darvish F., Zarifi E., Vaezi S.: *Study of Ploidy Level and Chromosomes Morphological properties of Ilam and Kermanshah Populations of Aegilops cylindrica species*. 6st National Biotechnology Congress of Iran, Tehran, Iran; 08/2009
24. Behnam Bakhshi, Jaffar Aghaei M., Bihamt M.R., Darvish F., Zarifi E., Vaezi S.: *Cytogenetic Study of Zanjan, Hamedan and Lorestan Populations of Aegilops cylindrica species*. 6st National Biotechnology Congress of Iran, Tehran, Iran; 08/2009
25. Behnam Bakhshi, Jaffar Aghaei M., Bihamta M.R., Darvish F., Zarifi E., Vaezi S.: *Cytogenetic Study of Ardebil and East & West Azerbaijan Populations of Aegilops cylindrica species*. 6st National Biotechnology Congress of Iran, Tehran, Iran; 08/2009
26. Behnam Bakhshi, Jaffar Aghaei M., Bihamta M.R., Darvish F.: *Diversity and Geographical Distribution of Ae. cylindrica in Iran*. 5th International Weed Science Congress, Vancouver, Canada; 06/2008
27. Behnam Bakhshi, Jaffar Aghaei M., Bihamta M.R., Darvish F., Zarifi E.: *Estimation of Ploidy Levels among Aegilops Cylindrica Host Accessions of Iran by Flow Cytometry*. 10th Iranian national genetic congress, Tehran, Iran; 05/2008

28. behnam bakhshi, Jaffar Aghaei M., Bihamta M.R., Darvish F., Zarifi E.: *Evolution of resistance against Yellow Rust in accessions of Aegilops cylindrica from Iran*. 10th Iranian national genetic congress, Tehran, Iran; 05/2008
29. Behnam Bakhshi, Mohammad Jaffar aghaei, Mohammad Reza Bihamta, Farrokh Darvish: *Evaluation of morphological traits in Aegilops cylindrica collection of national plant gene bank of Iran*. 10th Iranian Crop Sciences Congress, Tehran, Iran; 05/2008
30. Behnam Bakhshi, Mohammad Jaffar Aghaei, Mohammad Reza Bihamta, Farrokh Darvish: *Evaluation of powdery mildew resistance in accessions of Aegilops cylindrica in Iran*. 10th Iranian Crop Sciences Congress; 05/2008
31. . Mousapour Gorji A., Sadegh Samadi froushani, Abed Forouzesh, Behnam Bakhshi: *Effect of Planting Date on Specific Gravity, Tuber Volume, Big and Medium Tuber Percentage of Agria Potato Variety*. 5th International Crop Science Congress, Jeju, Korea; 04/2008
32. Behnam Bakhshi, Mohammad Jaffar Aghaei, Mohammad Reza Bihamta, Farrokh Darvish: *Evaluation of powdery mildew resistance in accessions of Aegilops cylindrica in Iran*. 5th International Crop Science Congress, Jeju, Korea; 04/2008
33. mohammad jaffar aghaei, behnam bakhshi, mohammad reza bihamta, farrokh darvish: *Multivariate Analysis of Morphological Variation in Accessions of Aegilops cylindrica from Iran*. 5th International Crop Science Congress, Jeju, Korea; 04/2008
34. Behnam Bakhshi, Mohammad Jaffar Aghaei: *Estimation of Ploidy Levels among Aegilops Cylindrica Host Accessions of Iran by Flow Cytometry*. 5th International Crop Science Congress, Jeju, Korea; 04/2008
35. Behnam Bakhshi, Mohammad Jaffar Aghaei, Mohammad Reza Bihamta, Farrokh Darvish: *Evolution of resistance against Yellow Rust in accessions of Aegilops cylindrica from Iran*. 5th International Crop Science Congress, Jeju, Korea; 04/2008
36. Behnam Bakhshi, Mohammad Jaffar Aghaei, Mohammad Reza Bihamta, Farrokh Darvish: *Genetic Diversity of Aegilops cylindrica HOST in East and West Azerbaijan of Iran*. 5th International Crop Science Congress, Jeju, Korea; 04/2008
37. Behnam Bakhshi, Mohammad Jaffar Aghaei, Mohammad Reza Bihamta, Farrokh Darvish, Shahin Vaezi: *Diversity and Geographical Distribution of Ae. cylindrica in Iran*. 2th national Weed Science Congress of Iran, Mashhad, Iran; 01/2007
38. Behnam Bakhshi, Ehsan Mohseni Fard, Ghasem Hosseini Salekdeh, Mohammad Reza Bihamta: High throughput deep sequencing revealed different molecular mechanisms in cereals are mediated by miRNAs. 8th national Bioinformatics congress, Zabol, Iran; 02/2019
39. Behnam Bakhshi, Ehsan Mohseni Fard, Ghasem Hosseini Salekdeh, Mohammad Reza Bihamta: The similar miRNAs have different missions in the dissimilar plant tissues . 8th national Bioinformatics congress, Zabol, Iran; 02/2019